

SIR FREDERICK MOORE, M.A., V.M.H.

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— TO —

SIR FREDERICK W. MOORE, M.A., V.M.H

THE SEVENTY-FIFTH VOLUME OF "THE GARDEN"

Is dedicated.

AMONG those who occupy prominent positions in the world of horticulture, Sir Frederick Moore take foremost place, and it is only fitting that the present volume, published during the year in which received his knighthood, should be dedicated to him. Born on September 3rd, 1857, Sir Frede quickly developed a liking for horticulture. His early days were spent in Messrs. Van Houtte's nurser Ghent, which was then at its high-water mark, and during that time he attended classes and lectures at the Gov ment School of Horticulture in that ancient town. From Ghent Sir Frederick went to Leiden, where he worked in Botanic Gardens and attended lectures and labor tory classes at Leiden University under Suringar and Tr Returning to Ireland, he was appointed Curator of Trinity College Botanic Gardens, Dublin, a position he held for t years. On the death of his father, Dr. David Moore, to whom Vol. XIII. of THE GARDEN was dedicated, Sir Frede was appointed Curator of the famous Botanic Gardens at Glasnevin, a position that he still retains. It was a so of much gratification to horticulturists generally when, at the conclusion of the visit of Their Majesties the King Queen to Ireland in July last, the King graciously bestowed the honour of knighthood upon this eminent horticultu As indicative of the active life led by Sir Frederick, we may mention that he is Hon. Secretary of the Royal Horticul Society of Ireland, Hon. Secretary of the Dublin Microscopical Club, a Member of the Councils of the Royal Irish Acad and the Royal Zoological Society of Ireland, and Consulting Botanist to the Royal Dublin Society. In addition to honorary degree of M.A., which was conferred upon him by the Royal University of Ireland in the year 1909 Frederick was one of the first to receive the Victoria Medal of Honour in Horticulture from the Royal Horticul Society. We dedicate this volume to one whom His Majesty the King has been graciously pleased to honour, and that he may long be spared to carry on his work in the interests of scientific and practical horticulture.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, *Tavistock Street, Covent Garden, W.C.*

THE NEW YEAR.

THE dawning of a New Year not only concludes a definite period by the calendar, but also ushers in a season of anticipation and preparation for all who derive pleasure from their gardens. The sure promise of lengthening days, with the gradual awakening of Nature from her winter sleep, reminds us forcibly that it is time to be up and doing. In no profession is it so necessary to look well ahead and make plans for the future as in gardening, and the wise gardener will not neglect this apparently trivial but, nevertheless, important task. Last week we briefly reviewed the work that had been accomplished in relation to horticulture during the year that is now no more, work that cannot fail to bear good fruit in the future, and upon the successes and failures of which our plans for the present year must be based. Horticulture, in common with most other industries and hobbies, has made enormous strides during recent years, and it is necessary for the gardener, whether professional or amateur, to keep well abreast of the times, a by no means easy task in these days of combined science and practice. Recognising as we do the necessity for cultivators of flowers, fruits and vegetables to have the best information possible relating to their hobby or profession, we shall publish from time to time special articles by writers of wide practical experience. All branches of gardening will thus be dealt with, some, perhaps, more fully than others, according to their relative importance. To all our readers, and particularly those who have sent us good wishes for the New Year, we wish continued happiness in the management and cultivation of their gardens, a task that is capable of providing pleasure which, if not altogether unalloyed, is, nevertheless, of a lasting and ennobling character.

FRUIT TREES FOR SMALL GARDENS.

Happily for themselves, and also for our country, the number of owners and tenants of small gardens is steadily increasing year by year. I say "happily for themselves" because I know that the pursuit of any aspect of gardening as a recreation is capable of giving more real and perennial pleasure to those engaged in the work than any other form of recreation which can be indulged in. Moreover, the result of such pleasant labour, more particularly if it is directed in the way of growing hardy fruit, is accompanied by tangible and useful results to themselves, and, also it adds in the aggregate to the volume of food extracted from the soil, which is a national advantage.

It is in the New Year, with the promise of spring and summer before them, that the desire of the young amateur gardeners for planting fruit trees asserts itself the most; and it is with the object of helping the readers of The Garden who are in possession of such small gardens to give practical and effective expression to this desire that this article has been written.

It is no small matter for a young amateur unaccustomed to handle a spade or a fork, or to wheel a barrow, to face the work of putting a garden (even a small one) in order after the builder and his bricklayers have finished building the house. Indeed, the confusion and disorder left behind is enough to strike terror into the heart of a veteran in the work; yet the difficulty presented by those ogres of confusion are often more apparent than real, and the labour entailed in reducing to order such gardens and trenching the soil of the same 2 feet or 3 feet deep would often cause less fatigue than that involved in playing a well-contested football match or a fast game of hockey. Do not, therefore, be tempted to call in a labourer to do this rough work for you, but go at it boldly yourself. It will make your back ache for the first two or three days, but with perseverance this will soon pass away and be succeeded by a delightful feeling of having conquered the first, the roughest and the heaviest part of the work of forming the garden by your own unaided labour. The after-work of planting and cropping will be merely a healthy, pleasurable and interesting pastime in comparison.

It has been stated many times, and I believe the statement is true, that those who extract the greatest pleasure from their gardens are those who do most of the work of the garden themselves. It does not matter whether it is fruit, flowers or vegetables which are grown. The fruit will be more luscious and sweet, the flowers brighter and more fragrant, and the vegetables more fresh and wholesome than if grown by other hands.

Before beginning to prepare the soil for planting, I would ask you to bear in mind for a moment the fact that an Apple, Pear or Plum tree, if planted in well-prepared soil, will go on growing and

increasing in value for at least thirty years, and that with very little further labour or expense to the owner or to those who come after him. Bearing this in mind, there are few, I venture to think, who will hesitate to provide such necessary preparations and conditions as will secure the future well-doing of their fruit trees. I have in my mind more particularly the planting of small, new gardens, but the method advocated, and which will be further explained, will apply equally as well to any other neglected garden.

The first thing, then, to do to secure these conditions, after the paths of the garden have been formed, will be to trench and manure the ground, not only where the fruit trees are to be planted, but the whole of it, whether it is wished to devote what is left of the ground after the trees are planted to the growth of Roses, ornamental and flowering shrubs, flowers, lawns or vegetables. You will never regret doing so, for the result in the improved growth and health of whatever crop is planted will be apparent for many years afterwards. There are two methods of trenching—one is trenching proper, and the other is termed bastard trenching. In the former the bottom (usually poor) soil is lifted and placed on the surface, and the top and intermediate soils at the bottom. This is an excellent way of improving the whole body of the soil of the garden where there is sufficient labour and manure at command to carry out the system. But in consequence of the poverty and often the stubbornness of the lower soil brought to the surface, crops planted in it (especially shallow-rooted ones) refuse to do well until such time as it has been well worked and plenty of manure incorporated with it. I do not recommend this practice in the case of the small garden of the amateur, but rather the bastard trenching. This is a method by the adoption of which the soil derives most of the benefits accruing from following the other practice without the disadvantage of having to bring the lower soil to the surface. Moreover, in the growth of fruit trees it must be the grower's aim in all that he does in dealing with the soil to induce the roots to remain near the surface, and therefore it would be against the principle of good fruit tree culture to bury a quantity of manure or good soil at the bottom of a trench, as this would offer a sure temptation to the roots to follow. Even on poor soils it is not wise to bury fresh stable manure before planting. The manner in which bastard trenching is proceeded with can be best explained by a practical demonstration, but I will endeavour to describe this in my next notes.

OWEN THOMAS, V.M.H.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 19.—Annual Meeting of Members and Subscribers of the Gardeners' Royal Benevolent Institution, at Simpson's Restaurant, Strand, London, W.C., at 2.45 p.m. Polling from 3 p.m. to 4 p.m.

Our Calendar for 1911.—As usual with this the first number of the year, we are presenting a calendar which contains the dates of the principal horticultural exhibitions to be held during 1911. We hope that readers will, where possible, preserve this for reference. To the secretaries of the various societies who have kindly sent us dates we tender our best thanks.



THE NEW PERPETUAL-FLOWERING CARNATION LADY ALINGTON.

Photographs of Sweet Peas. — Last year we were able, through the kindness of our readers, to publish photographs of well-grown Sweet Peas or pretty effects obtained by the use of these flowers in the garden. We should be pleased to see any photographs of Sweet Peas that readers care to send, and any not suitable for publication will be promptly returned.

Carnation Lady Alington.—This variety has proved to be one of the most perfect of the Perpetual-flowering race of recent introduction. It was raised in the Bush Hill Park Nurseries by Messrs. Stuart Low and Co., who are distributing it in the spring of this year. The colour is a delightful shade of salmon pink, and it is sweetly scented. The individual flowers are large and well built up, with a full centre. The plant makes strong growth, and, as seen in the accompanying illustration, the stem is of good length, which always holds the flower erect. Not only has this newcomer received an award of merit from the Royal Horticultural Society, but it also gained a first-class certificate at the recent winter show of the Perpetual Flowering Carnation Society.

The Gardeners' Royal Benevolent Institution.—The seventy-first annual general meeting of the members and subscribers of the above institution will be held at Simpson's Restaurant, Strand, London, W.C., on Thursday, January 19, for the purpose of receiving the reports of the committee and the accounts of the institution (as audited) for the year 1910, electing officers for the year 1911 and for the election of twenty annuitants on the funds. The chair will be taken by Mr. Harry J. Veitch, F.L.S., V.M.H., treasurer and chairman of committee, at 2.45 p.m. The poll will be open at 3 p.m. and will close at 4 p.m. precisely, after which hour no voting papers can be received.

The "Kew Bulletin."—In addition to many articles of purely botanical interest, the last issue of the "Kew Bulletin" also contains interesting notes of value to the horticulturist. Under the title "Garden Notes on New Trees and Shrubs," Mr. W. J. Bean describes a number of newly introduced plants from Western China. Professor H. H. W. Pearson of Cape Town advocates the need for the establishment of a South African national botanic garden, pointing out that such a garden should be more than an economic undertaking, as it must also be an expression of the intellectual and artistic aspirations of the new nation, whose duty it is to foster the study of the country which it occupies and to encourage a proper appreciation of the rare and beautiful with which Nature has so lavishly endowed it.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The National Sweet Pea Society. Your correspondent "No Lawyer" seems to be greatly concerned as to the legality of the action of the society's general committee in refusing to accept an instruction from the members' meeting as to the disqualification for office of amateur members who sold Sweet Pea stocks to the trade. He does not say that this instruction was carried only by twenty-nine votes against twenty-three. Thus at once the instruction lost its force, because only carried by a narrow majority. That the general committee refused to accept anything so stupid or unworkable is a tribute to its good sense, and probably before now many members who voted for it at the general meeting now admit they made a mistake. Really such a decision, if adopted, would have been not only to severely handicap all amateur efforts to raise new varieties, but it would have the effect of keeping all the best amateurs off the floral committee.—A MEMBER.

Flowers outdoors at Christmas.—It may interest some of your readers to know that, owing to the mild December we have had, the following plants are flowering here: Hamamelis mollis, Hepaticas, Saxifraga burseriana major, three varieties of Crocus, C. sativus having been out some time; the big white Christmas Rose has also been out some time. A small white Erica is in full flower, and E. carnea looks as if its buds would soon burst; and white buds of Leucojum carpaticum seem as if they would soon open. This part of Cheshire is cold and damp, and we are usually much behind those who live near the coast.—GEORGE DIXON, *Astle Hall, Chelford, Cheshire.*

Lilium giganteum.—While agreeing with Mr. Jenkins's advice as to the cultivation of this fine Lily, I am surprised that he does not mention the surest way of raising a stock of it, namely, from seed. It is true that one has to wait seven years or so before getting a flower, but when the flowers do come, "they come not single spies, but in battalions," and are worth waiting for. Some of those raised from my own seed were last year 11 feet high, with eighteen to twenty blossoms on a spike. A few of the bulbs did what I never saw before—they sent up a second flowering stem six weeks after the first, but not more than 3 feet to 4 feet high, with smaller blossoms opening in September. Should any reader of THE GARDEN wish for some seed, I shall be happy to send some if he will enclose an addressed envelope, for I have an enormous crop of it.—HERBERT MAXWELL, *Monreith, Wigtownshire.*

Marguerite Queen Alexandra.—I see that on page 636 "D. B. C." speaks of Marguerite Queen Alexandra having originated in South Africa. This may be so, but I first met with it as far back as 1886 at Queenscliff, Victoria, where a gardening friend gave me some cuttings, and I grew it in my garden at Sydney till I left Australia in 1888. It was also obtainable at that time at Messrs. Treseder's in Sydney. I certainly think that the quilling was fuller and more regular, and the plant generally a better doer, than I have found Queen Alexandra to be, but this may have been due to the climate. It was interesting to read in the same issue Mr. Boyle's note on the Flannel Flower. If this could be brought to and grown in England, it would surely soon become popular; but I fancy few people have been successful in establishing it in gardens even in New South Wales. That flower, with the Wattle, the Bottle-brush, the native Rose and Epacris, are especially characteristic of the neighbourhood of Sydney. Perhaps some day we may see an Imperial flower show exhibiting the characteristic flowers of the different Dominions and Colonies in their own sections: it would be interesting to many.—W. ST. P. B., *Bedford.*

Smoking at flower shows.—One could not help noticing at the recent exhibition of Perpetual-flowering Carnations how large a number of, chiefly, young men were seen to be smoking in the exhibition hall. As a frequenter of the Royal Horticultural Society's meetings, where smoking is not permitted after the tables have been arranged, these little clouds of smoke not only appeared quite out of place, but also to act as a deterrent to the finding of fragrance in the flowers exhibited. To-day, as of yore, much is made of fragrance in the Carnation; but surely its presence is not to be detected, much less is its delicate charm enhanced, by an accompaniment of Tobacco smoke, little or much. Smoking at such meetings but relegates them to a second or even third rate position, and if the Perpetual Flowering Carnation Society is desirous of placing the flower upon its highest pedestal, it will do well to set its face sternly against the smoking habit during exhibition hours.—OBSERVER.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

THE work of compiling the seed order will now be occupying gardeners' attention. The experienced man will have no difficulty in this matter, but the grower of less experience must give it due consideration. He must not place too much reliance on varieties which have not been well tried, and although it is prudent and interesting to include a few novelties in the list, the bulk of the order must be made up of kinds which may thoroughly be relied upon.

Digging and Trenching.—If this work has been postponed by stress of weather, it should be pushed on whenever opportunity offers, so that the ground has time to get thoroughly pulverised and mellow by planting-time. This is a suitable time to dig fresh lime into land which has become inactive. As much of the land should be trenched and manured as time and labour will allow, as the bulk of vegetable crops require a rich, deeply tilled soil.

FRUIT GARDEN.

Planting Fruit Trees.—The continued wet weather which was generally experienced during November and December will have considerably retarded this operation. No alarm need be felt at this, provided the trees are safely heeled in and the roots sheltered from frost. Wait until the soil is in good, workable form, then proceed with as little delay as possible. It is a good plan to have a quantity of dry soil ready to hand when this work is begun, to place about the roots; it will be found of valuable assistance, as it is more readily worked among the roots than wet soil.

Preparations for Forcing.—In many establishments the forcing of fruit does not commence till the beginning of the New Year. At this date it is necessary to have a programme drawn up in regard to the forcing operations for the coming season, so that the various crops of fruit shall be ripe at a time when they are most required. Before starting Vines, Peaches and Figs into growth, it is imperative that they have a thorough period of rest; that is, the houses should be cleared of any plants they may contain, and the ventilators thrown wide open day and night for several weeks, except when very severe frost supervenes and there is danger of the pipes becoming frozen.

Late Vines.—All the late Vines should be cleared of their crops at this date, so that attention may be given to the state of the borders. If the crops have been unsatisfactory, the cause will invariably be found at the roots. The soil will, no doubt, have become stagnant and inactive. As much of this should be taken out as practicable and replaced with fresh loam mixed with lime rubble, wood-ashes and crushed bones. Preserve as many of the roots as possible, and lay them carefully in the new soil near to the surface. See that the border is efficiently drained before adding the new soil. Should the borders and roots be in a healthy condition they should receive a thorough watering with clear water, followed by another watering with diluted liquid manure. All late Vines should be pruned before the end of the month.

Planting Young Vines.—If it is purposed planting young Vines, and these are to be obtained from the nurseryman, they should be procured without delay. Cut them back to five or six buds and place them outdoors, plunging the pots in ashes or Bracken to protect them from frost.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

SOWING PEAS.—The first sowing of Peas out of doors should be made as early in the year as the ground can be got in good condition. Deep digging or trenching and liberal manuring are essential for successful Pea culture; ground prepared last month or earlier may be found in a very wet condition, and some difficulty may be experienced in getting it into good order for sowing until well on in the spring. To avoid this I prefer to dig and sow on the same day, using some well-decayed farmyard manure, and, unless the soil is a stiff clay, this method will ensure a better seed-bed. The drills should be taken out to the depth of 3 inches and 8 inches in width, treading the bottom slightly, afterwards making it smooth with a steel rake. The seeds should be sown moderately thick in this first sowing, and coated with paraffin and red lead where mice or other vermin are troublesome. It is not necessary to confine the first sowings to the round-seeded varieties of inferior quality, as numerous wrinkled sorts can now be had almost, if not quite, as early and of much superior quality. As a rule a good supply of Peas can be maintained throughout the season by fortnightly sowings from January to the middle of June. It is not necessary or even desirable to use a great number of varieties; rather sow sufficient successional crops of a comparatively few approved ones. Tall growers give the longest supply of pods, and these should be gathered regularly.

Kidney Beans.—These are in great demand in most places, and being easily forced can be had for the greater part of the year. Successional sowings should be put in weekly in batches, according to the requirements of the place. Eight-inch pots are found the most convenient size to use, placing from six to eight seeds in each pot filled with a fairly rich, light compost. A light and airy house is necessary at all times, but more especially during the winter months, and after germinating the pots should be kept as near the glass as possible. When the plants are about 6 inches in height, a few twigs should be placed in each pot as a support to the haulm. The variety Osborn's Forcing is still the most reliable for very early work, but as the season advances other dwarf varieties might be tried with advantage. Among numerous varieties I have tested for forcing nothing has equalled Sutton's Superlative for the number and length of pods, together with tenderness; it has also a very dwarf, prolific and early habit. Where the necessary space can be given, the climbing varieties of French Beans are by far the most profitable to grow; providing they have room to ramble and the foliage is kept clear of red spider, they will continue in bearing for quite a long time.

FRUIT GARDEN.

Planting.—Advantage should be taken of every favourable opportunity for completing the planting or transplanting of any fruit trees that may have been delayed for various reasons. Those who have contemplated planting will have already prepared the ground and have their trees in readiness. Prune all damaged roots and others that are extra long, place the tree in position and spread out the roots carefully, working in among them some of the finer soil, and making the whole quite firm as the work proceeds. No manure should be added at the time of planting. It is far better to apply rich manurial dressings from time to time on the surface. All freshly planted trees should be provided with stakes and a permanent label attached to each, afterwards mulching the trees with litter. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle

PLANT-LIFE IN ALGIERS.

A WEEK of delightfully fine, warm and bright weather is generally enough to make one think well of almost any place. The holiday-maker must be a person hard to please if it is not. When this happens in midwinter, and when, as if by way of contrast and to emphasise one's good fortune, one hears reports of the cold and wet of the Mediterranean; when one finds such a comfortable resting-place as the Hotel St. Georges Mustapha-Superieur, and when one has experienced kindness and comradeship from one's countrymen who live there, it is still less to be wondered at that the wayfarer should return home filled with the highest opinion of Algiers as a place for the grumbling Briton to visit when he wishes to escape some of the rigours of his own climate.

But THE GARDEN is not a *Cyclists' Touring Club Gazette*, to make an account of a tour suitable matter for its columns, nor yet a *Lancet* where it might be correct to puff the merits of a health resort; it is a gardening paper and its readers are gardeners, and presumably interested in all that pertains to horticulture. This is why I am writing this article. It is to tell anyone who can leave his own little Cabbage patch to take care of itself for a while, and who wants a real change of surroundings—which, by the way, he might get by going to Kew and living for a week in the big Palm-house—to go to Algiers and study and enjoy the plant-life there.

Even in late November and early December, when flowers are, comparatively speaking, few, there is much to interest one in the wayfarer sides and waste places; in the gardens of the hotels and private residents; in the fine old Jardin d'Essai, where, when one walks down the Dragon Tree (Dracæna Draco) Avenue or stands by the curious creeping Banyan Trees (Ficus macrophylla), one imagines one is at an English pantomime, and every moment expects sprites and gnomes to come out and people the scene; and, if the opportunity offers, in a visit to such a nursery as that of the Ancien Etablissement de Pépinières et Orangeries de Rossier Frères et Sœur at Boufarik, thirty-seven kilomètres from Algiers, and famous for its great Monday market and its groves of Oranges and Lemons. M. E. Rossier, the present proprietor, has a fine stock of trees and shrubs, and, besides this branch of his business, has a large trade in different kinds of Oranges and Lemons, of which he has eighty hectares under cultivation.

Speaking roughly, the inside of a greenhouse is a sealed book to me as far as being able to identify many of the plants and trees that inhabit it. Now, being in Algiers is like being in a greenhouse. The magnificent Bougainvilleas, with their masses of richest purple or orange brick red colouring; the tall, battered-looking Bananas, the Latania, the Phœnix, the Chamærops and other Palms; to say nothing of much smaller fry, such as Pelargoniums and Scented Geraniums, Solanums and Pepper Plants, and very many others, which seem to meet us, one or other of them, at every turn, all tend to lend substance to the imagination that we have been transported to some huge glass structure with a movable roof and invisible sides.

It is for this reason impossible to say how much additional pleasure I got from a chance purchase of a little book called "The Flora of Algeria." I saw it advertised in the outer hall of the hotel, and as I am not a botanist, and as I am not so much interested in wild flowers as in garden forms, especially at a time of year when there are very few in evidence, I might easily have passed it over had not the (luckily for me) importunate and obliging concierge produced the book and made me dip into its pages. It was the very thing I wanted; nothing peculiarly learned about it; photographs of every plant mentioned—two of some of them, one showing the flower, the other the fruit. It was not a "Flora" at all; it just pictured the plants that you saw everywhere, and which an ignoramus like myself wished to know something about, even if it were only their name. Down went the francs and the book was mine. "All roads lead to Rome," but some must look much more unlikely than others at the start. It is strange to think that it was a love of photography that first kindled the interest of the author of the above book in plant-life. At first, if he knew a Dandelion from a Buttercup, I am fairly sure he could not distinguish between a Phœnix and a Chamærops. It is just this that has made his book so interesting and useful to "the man in the street," or should I say the man in the "greenhouse"?

Just the ordinary plant-life of the suburban roads and gardens is depicted in an excellent series of photographs, and the Latin, French and English name of each is appended with a word or two of description and every now and again a line or verse of poetry; for Dr. Alfred Gubb is familiar with our great poets, and never seems so happy as when he can greet a plant or tree with an apt quotation. Thanks to the help of Lieutenant-Colonel Prain of Kew and MM. Trabut, Hèrail and Ch. Riviere of Algiers, the Doctor's names can be relied upon as correct, and this is a very decided advantage in what one must call a non-botanical work. He told me that some day he would bring out a new and enlarged edition, and I saw many new photographs ready for it. It will be rechristened "Plant-Life in Algiers" or "Pictures of Plant-Life in Algiers," or some such title, and it will have an original scheme of leaf classification to help the novice to find the pictures of the specimens he has brought home.

The pictures of the curious lanky Torch Thistle (Cereus peruvianus) and the fine row of Chamærops alongside one of the main walks in the Jardin d'Essai are reproductions of two of the photographs in Dr. Gubb's book, and are introduced here to show the novel sights which are to be seen almost anywhere in the environs round the town and to give an idea of how the work is illustrated. JOSEPH JACOB.



CHAMÆROPS EXCELSA IN THE JARDIN D'ESSAI, ALGIERS.

ROSE GARDEN

NABONNAND'S ROSES.

I WAS glad to notice an appreciation of this raiser's Roses in THE GARDEN for December 24. I also observe that your correspondent "A. P." says that the list of sixteen varieties therein given includes some of the best, and to this I cordially agree. But as there are some few omissions of what I consider to be excellent sorts from this same raiser, I send these few notes for the benefit of your readers who may not be acquainted with them. They are all in the Tea-scented group. Paul Nabonnand, sent out in 1878, is a lovely pink variety with exquisite form and excellent habit. I believe to this day it is largely grown by the French florists for their cut-flower trade. Then there is Marie d'Orleans, a fine Rose. It is as hardy as Homère and a fine, bold grower, and when established yields a glorious wealth of its bright rose-coloured blooms. It was sent out in 1884. In 1898 we received Grande Duchesse Anastasie, a variety with large oval carmine buds, open flowers rosy salmon, with yellow at base of petals. It is a large, full flower of perfect form, and I am sure if it were grown for exhibition would often be found in the winning boxes. Albert Stopford was sent out the same year and is a very fine sort, superior in form to General Schablikine, although, perhaps, not so free. Its colour is deep bright carmine rose, with coppery centre, this latter colouring being seen in quite a number of M. Nabonnand's seedlings. It was raised from General Schablikine crossed with Papa Gontier.

Another delightful gem is Comtesse Sophy Torby. Its earliest blooms are peach red with coppery centres; but the later ones change to coppery orange with salmon centres. It is a large, full Rose with fine, regularly formed petals. Comtesse

Emmeline de Guigne, carmine, tinted coppery crimson, is a very excellent Rose whose parents are Papa Gontier and Comtesse F. Hamilton. I have had flowers of this variety even surpassing Mme. Lambard. Sophia King is a charming seedling from G. Nabonnand (which, by the way, stands for Gilbert Nabonnand, not Georges), and we may be sure any seedling or sport of this lovely Rose will be good. Its colour is chamois yellow, shaded buff and carmine.

Bertha Kleman is another seedling of G. Nabonnand on the paternal side, the seed parent being Safrano. This is a lovely sort, with salmon flesh blossoms tinted with sulphur. Florence Tron is brilliant carmine tinted with madder red, edges of petals silvery, a very striking flower; a seedling of Albert Stopford crossed with Tillier.

Jeanne Proudfoot is another variety of exhibition standard which only needs bringing out by some of our expert Tea Rose-growers. Unfortunately, there are so many novelties introduced each year that many of them do not get a fair trial. Nurserymen grow them as maiden dwarf plants, and as a consequence poor flowers are produced which are but the ghost of what the variety is capable of doing under really good cultivation. Some of our very best Teas under like circumstances would be passed over as useless. I have had blooms of the above quite fit for any exhibition box. The colour is salmon rose, tinted flesh. Mme. M. Dounay, magenta, shaded purple and rose, from Paul Nabonnand, crossed with Christine de Noue, is a very lovely semi-double flower. The above are all worthy additions to any collection, and many of them would equal, if not surpass, some of the very flimsy semi-double novelties of the present day. It seems a great pity that in the demand for new varieties many of the older sorts are overlooked, or, at least, they have to take a back seat. Of course, improvements appear in many of the novelties, but a large number which are put on the market are in no way superior to many older sorts. P.

ROSE LADY WATERLOW.

THIS Rose was at first, in the garden of the writer, most disappointing, but with age it improved wonderfully, the growth, after the soil had been well manured and given occasional doses of liquid stimulants, increasing in strength. I am writing now of a pergola in a somewhat exposed position, though the Rose mentioned was in the centre, and therefore, in a measure, sheltered. It is not a strong climber, but will in time clothe a post 7 feet in height, and the half-double flowers continue to expand until the late autumn. Flowers were opening even in October last year, and this point is not often referred to when this Rose is under consideration. The colouring is dainty, a soft rose, shading to a pale alluring tint, and although the flowers are in a sense flimsy, they retain their beauty for many days. I am planting more of this autumn Rose, which certainly is overshadowed by kinds that receive greater praise. V.

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN JANUARY.

IF the cultivation of fruit trees is to be successful, both the trees and their surroundings must be kept scrupulously clean. There is no kind of fruit tree that requires these conditions more than the Vine. The latter is not regarded as a fruit tree in the same way that a Peach is, but it should be. Both foliage and fruit are very tender, and must have the best and most careful treatment. When once the Vines or the fruit become infested with insect pests, the cultivator will have great difficulty in getting them clean again; so it is of vital importance that a good beginning be made in the New Year. All the early Vines, such as Black Hamburgh, started almost naturally in April, the partial pruning must be done early in November. Later varieties should be so treated towards the end of November or early in December. The final pruning of the former should take place about the middle of December, and that of the latter just before Christmas. When pruned in this way the buds will swell more kindly, and there will not be much danger of the bleeding of the Vines in spring when the sap rises. No doubt some pruning will be necessary in January. I know cultivators who are very dilatory in this matter, and then they have trouble later on through the excessive loss of sap. The side branches must be cut back with a very sharp knife, leaving two buds at the base. If both grow, then one must be retained and the other disbudded when they are about 2 inches long, or even 1 inch.



CEREUS PERUVIANUS AT ST. GEORGE'S HOTEL, MUSTAPHA, ALGIERS. (*See page* 4.)

All Vines pruned now must be painted with styptic or ordinary painter's knotting to prevent any bleeding later on. Paint the ends of the cut branches twice, putting on each time a very thin coat of knotting, as this would be more effective than one thick coat or layer. Cut off the branch half an inch above the bud. It is not wise to make the cut too close to the bud. The next thing to do will be the cleaning of the rods. Do not remove any bark except that which is loose and can be rubbed off easily with the hand. Many Grape-growers peel the rods until they are quite green in places; this is very harmful. Only remove the fluff from around the young buds and any loose bark found there; leave untouched all bark that seems firmly attached to the rods. Where Vines are known to be clean, the rods should be simply washed with water heated to 112° Fahr.

In no case must the eyes or young buds be touched with very hot water or insecticides. Vines which to the naked eye appear to be quite clean are often infested by red spider, so it is advisable to use a solution of soft soap and flowers of sulphur when washing the rods; but if the rods are infested with mealy bug (a loathsome insect), thoroughly scrub them with Gishurst Compound, taking care, of course, to keep the solution from touching the buds. All cracks in old rods may then be filled with some of the Gishurst Compound. Do not use any mixtures such as clay and tar. Keep the rods clean, so that any single insect can be clearly seen and not find a hiding-place. When the rods are cleaned, remove the loose surface soil from the border and put on a top-dressing of fibrous loam at least 3 inches deep, with a dressing of bone-meal under it at the rate of 4oz. per square yard. Before putting on the top dressings give the border a good soaking with clear water. If young Vines are to be planted, put them in as soon as possible. They should be purchased in pots, and it is sometimes necessary to break these to get the plants out without injuring the roots, which must be uncurled and spread out to their full length in the new soil. B.

wood should be washed with a solution of soft soap and water as hot as possible. Then the glass must be similarly treated with hot, clear water only.

PRUNING AND CLEANING THE VINES.

If the Vines have not already been pruned, no time must be lost in getting this work done. I am a firm believer in the early pruning of Vines. Directly the leaves begin to fade I like to cut back all the shoots a little, leaving about 15 inches of shoot attached to the rod. In the case of fairly

COLOURED PLATE.

PLATE 1416.

HYBRID NEMESIAS.

OUR first issue in the New Year is fittingly accompanied with a coloured plate of one of the brightest of half-hardy annuals. The Nemesia has received a good deal of attention in recent years, and no flower could have made better response to the unremitting care that has been bestowed upon its improvement. A glance at the coloured plate will at once reveal the wide range of colour now to be obtained from this flower, varying from pale lemon to purple and from white to deepest crimson, with a predominance of pleasing shades of orange. Its cultivation is quite simple. Seeds should be sown early in the spring in gentle heat. It is important that no more heat should be applied than is necessary. Seeds germinate quickly when sown in early summer either in pots or boxes placed in a sheltered position out of doors. The Nemesia is not in the least particular as to soil. Any ordinary garden suits it quite well, and good results may be obtained on poor and stony soils. The plants should be bedded out from 6 inches to 9 inches apart. When grown either in a border of annuals or as a flower-bed on the lawn, the Nemesia is sure to give a good account of itself and to gain general admiration. Nemesia Suttonii is well adapted for bedding purposes, but we would here utter a warning note to our readers, for many inferior strains masquerade under the name and disguise of Suttonii which are totally different from the genuine article. This arises from the fact that the strain is difficult to save, on account of rapid degeneration of the stock, if careful selection is not maintained. From a reliable source, however, the seed may be depended upon to give plants true to character. For the subject of our coloured plate, which has been prepared from a colour photograph, we are indebted to Messrs. Sutton and Sons of Reading, whose name is so closely associated with the modern development of the Nemesia.

THE FLOWER GARDEN

SWEET PEA CHAT.

TO all readers of THE GARDEN, whether they be lovers of the Sweet Pea or still that much lacking in modern education, greeting. In passing over to my care for this year of grace the column devoted to this delightful flower, the Editor has intimated that its trend must be primarily practical, but that the discussion of varieties and matters which affect the prosperity of the cult may be dealt with at discretion. That I am gratified in having such an important section of the paper in my hands needs no saying, and it will be my endeavour worthily to uphold the good name of THE GARDEN for the reasonableness and reliability of its notes on Sweet Peas as founded by my friend and immediate predecessor "Spencer."

THE STATUS OF THE FLOWER.—A decade or more ago it was suggested that the popularity of the Sweet Pea would not last. The flower rose in importance with a rapidity which no other had equalled or even approached, and for this reason the pessimists asserted that its fall would be prompt and complete, and that a second rise was an utter impossibility. How do we stand now? Has the Sweet Pea reached the flood of its prosperity and popularity? I say emphatically, No. On the contrary, we have not come approximately near to that state, notwithstanding a sinister point in the report of the National Sweet Pea Society. The annual meeting of the members of that body is now ancient history, and it is far from my desire to bore my readers with matter of which they have heard enough, or perhaps more than enough; but there was one disquieting note to which, as far as I am aware, allusion has not been made. In all previous reports of the committee the total number of members has been recorded, and each succeeding year has seen an increase; but this season the figures were obscured in words, and it is my fear that for the first time there has been a drop. I do not say that this is the case, but the sudden change from an established and excellent custom forces a doubt. If it is a fact that the membership is smaller now than it was twelve months ago, are we necessarily to accept it as an indication that the flood is reached and that decadence has set in? Again I answer, and with greater emphasis, No. To-day the Sweet Pea is the supreme favourite among annuals, and a decade hence its lovers will have increased five-fold, not in mere numbers alone, but in enthusiasm too.

TO EXHIBIT OR NOT TO EXHIBIT?—That is the question. Nowadays the value of a variety is appraised by its size, substance, waviness, number and set of blooms on the scape, and other points which have purely exhibition importance; but are there not still hundreds of growers who see a use beyond the winning of cups and medals in the homely Sweet Pea? Yes, there are many hundreds, and they cultivate those varieties that are possessed of the strongest constitutions and which have an astonishing capacity for producing flowers over a lengthy period. Do the garden-lovers and home decorators demand a 24-inch stem with nothing less than four blooms and a waviness that is sometimes almost hideous? No, once more: Far be it from me to suggest that the smooth forms are superior to the waved for showing, but that they have their value is substantiated by the fact that tons of seed are still sold and the market-growers cannot yet afford to ignore them. There are amateurs whose views are the same, and they give pride of place in their gardens to the favourites of old. The exhibition of flowers encourages interest, but the tendency is to endeavour, by more or less unnatural methods of management, to increase the size of the blooms, their numbers and the length of the stem that carries them; and the amateur who sees the products of others in these directions and fails to achieve equal results himself is apt to be disappointed and fall from the ranks. This should not be. The healthy plant which will commence to blossom in July and continue until the autumn is the one for the home, and if the standards are not 2 inches across, and if there are not four or five blooms on every stem, does it matter? Not a bit of it, for the garden has been beautified, the home has been rendered more attractive, and there have been hundreds of stems to pass on to friends.

A. B. ESSEX.



A LITTLE-KNOWN SHRUBBY CALCEOLARIA: C. ALBA.

CALCEOLARIA ALBA.

THE past season, with its dull, cloudy weather, evidently provided the essential conditions required by this plant, as it has not been so good for many years previous. For the whole of the summer it produced an abundance of its white flowers, continuing well into the late autumn, as may be seen in the accompanying illustration, from a photograph which was taken in the month of October. C. alba is a Chilian plant, and has been in cultivation since the year 1844, when it was introduced by Messrs. Veitch and Son. It is shrubby in habit, growing rather more than 1 foot high, with copious foliage and terminal panicles of ivory white flowers, the pouch of which is almost entirely closed at the mouth. Although C. alba has been in cultivation for so long, it is not a common plant, probably due to the difficulty of keeping it through the winter months. It is not hardy except in the milder parts of this country and Ireland, although it will survive the winter when planted against a warm south wall. In order to keep it, cuttings should be taken in the autumn, and these should be inserted in pots of sandy soil and then kept in a close frame till rooted. They root readily, and may be potted off into small pots, which ought to be kept in a warm, close frame for a time till the roots get hold of the fresh soil. Afterwards the plants may be kept in a cold frame if well protected from frost. A good companion plant to the above is the yellow

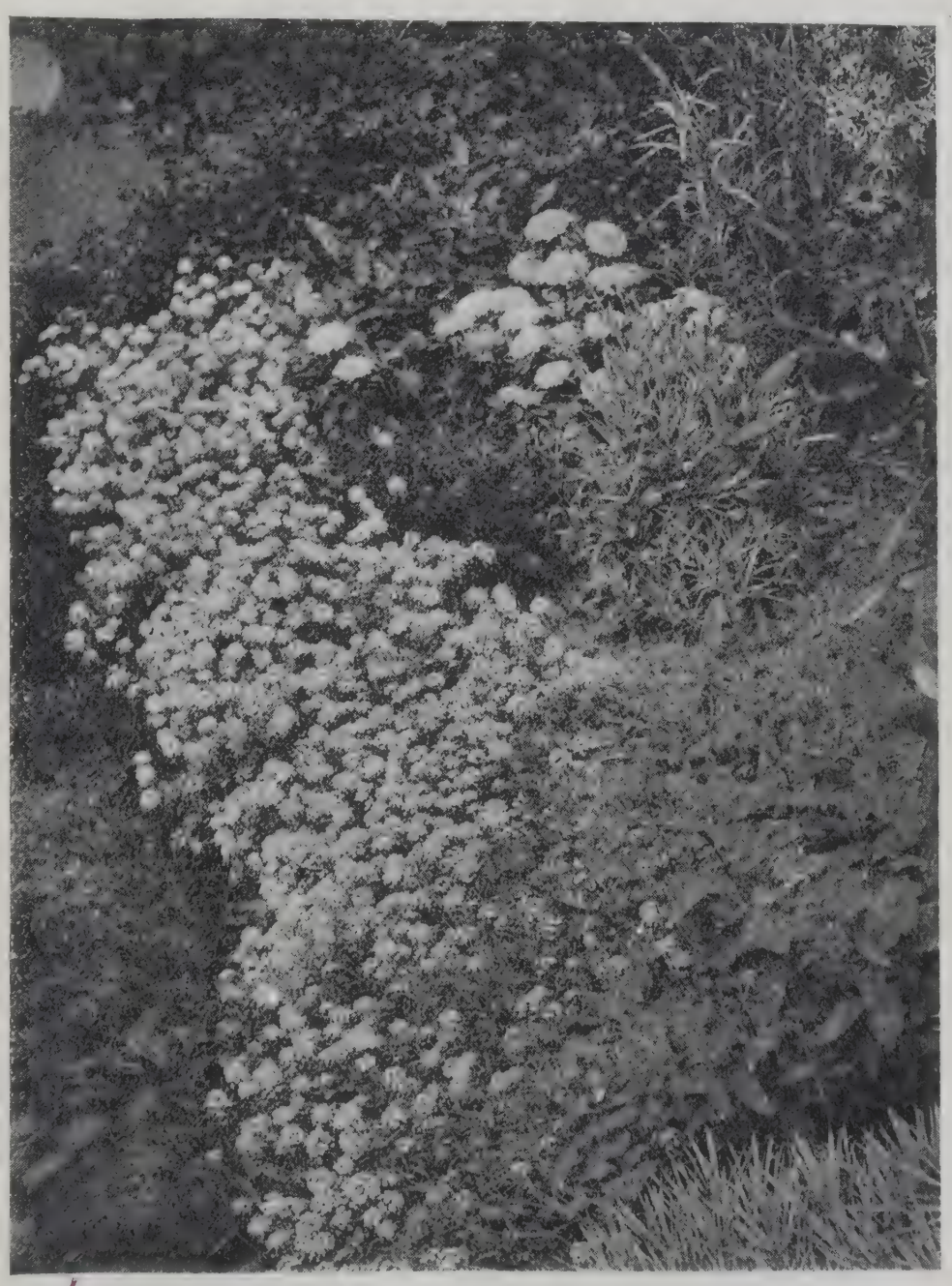
flowered C. hyssopifolia, which comes from the Andes of Quito. It is sub-shrubby in habit, about 2 feet high, with narrow leaves, and flourishes under the same treatment. W. I.

LYCORIS AUREA.

SOME time ago a flower-spike of this handsome Amaryllid was exhibited at a meeting of the scientific committee of the Royal Horticultural Society by Mr. A. Worsley. The species of Lycoris are very shy bloomers when cultivated in pots, but Mr. Worsley found that L. aurea flowered freely when planted out in the border of a house. To my knowledge L. squamigera also flowers profusely when planted out. This is quite contrary to the behaviour of many plants belonging to the same family, which seem to flower best when their roots have well filled the pots in which they are being grown. Neither of the five described species seems to have a popular name, but "Golden Amaryllis" would well apply to L. aurea, which is closely allied to Amaryllis and differs chiefly in having wavy segments turned upwards at the tips, with a fringed stigma. The flower-scapes appear during September and October, in advance of the leaves, and attain a height of 12 inches to 18 inches, bearing an umbel of glorious golden yellow flowers. Seeing that it succeeds so well when planted out, we should expect to see it more frequently cultivated in greenhouses having the convenience of a border of light rich soil. The species is a native of China, whence it was originally introduced in 1777; but as cultivators had only a moderate success with it, the bulbs gradually disappeared from collections. J. FRASER.

A DWARF ANNUAL FOR EDGINGS.

CONSIDERING the number of dwarf-growing annuals that are available for growing as edgings to beds or borders, it is surprising that one so seldom finds them used in this way. An annual that gave me much pleasure last year was Alyssum Webb's Carpet White, a dainty, spreading plant that did not exceed 6 inches in height even in the later stages of its career, and flowered continuously from early June until well into November. The illustration is from a photograph taken in mid-October, and depicts this white-flowered annual used as an edging to a small mixed border. In the spring this border had an edging of blue and white Crocuses, and after the flowers of these had faded seeds of the Alyssum were sown between the Crocuses. By the time the foliage of the latter was matured sufficiently for removal, the Alyssum seedlings were a good size, so that the border was not without a neat edging from early March until the frosts of mid-November killed the Alyssum. The sowing of low-growing annuals between spring-flowering bulbs ought to be more largely adopted than is the case at present. By so doing the bulbs may be left undisturbed and the foliage can die down in a natural manner, to the great advantage of the bulbs. H.



ALYSSUM WEBB'S CARPET WHITE AS AN EDGING TO A SMALL MIXED BORDER.

THE GREENHOUSE.

SWEET-SCENTED GREENHOUSE FLOWERS IN WINTER.

A FLOWER without perfume is by many regarded as wanting in one of its most important features, and, however sombre tinted it may be, the possession of a pleasing fragrance fully atones for lack of colour. The greenhouse, even during the late autumn and winter months, need not be devoid of agreeably scented flowers, for the choice of such is a fairly extensive one.

That grand Himalayan shrub, Luculia gratissima, with its Hydrangea-like heads of pink blossoms, usually commences to flower in November. Apart from their showy character the blossoms are also sweetly scented. An old, well-known and for a very long time a most popular plant owes the greater part of its attractiveness to the fragrance of its blossoms. This is Daphne odora or indica, for though the two used to be considered distinct, they are now regarded as one species. This Daphne forms a neat evergreen shrub, hardy in favoured districts in the South-West of England and similar localities, but it must, generally speaking, in this country be looked upon solely as a greenhouse shrub. Neat little examples sprinkled with flower-clusters may be purchased in the autumn or winter, and a single specimen will make its presence manifest in even a good-sized structure. In the case of established plants a succession of blossoms will be kept up till the spring, by which time other fragrant flowers assert themselves. The old-time gardener used to increase this Daphne by cuttings; but of late years, in order to propagate it more rapidly, it is often grafted. This is by no means an improvement, especially when the stocks employed are seedling plants of the Mezereon, for the deciduous nature of the stock affects the evergreen character of Daphne odora. Of this last there is a white-flowered variety, but it is of looser habit and more difficult to keep in health than the deeper-coloured form.

A plant whose fragrance is almost proverbial is the Mignonette, and a few examples in the greenhouse during the winter are much appreciated. Time was when large specimens of Mignonette, trained either as pyramids or standards, used to be considered a fair test of cultural skill, for to succeed with them they needed a great deal of watchful care. There is, however, no need to go to all this trouble in order to enjoy the fragrance of Mignonette in winter, as this may be done by sowing seeds in 5-inch or 6-inch pots in the month of August and growing them on in a light and airy position. For winter Mignonette the pots must be clean and effectually drained, while a suitable soil consists chiefly of fibrous loam, pressed down very firm, as if this is left loose it induces a succulent habit of growth, which is not favourable to the development of blossoms at midwinter.

Stock Beauty of Nice may be had in flower during the winter, and its relative, Cheiranthus kewensis, with dull-coloured flowers, changeable in hue, is remarkable for its delicious perfume. This member of the Wallflower family is of a shrubby character, and must be propagated by means of cuttings.

Carnations and Roses, though some are less fragrant than they might be, go to make up the list, and the Heliotrope, more often regarded from a summer than a winter flowering standpoint, is always appreciated. For blooming at this season it needs the warmest end of the greenhouse, and the old, pale-tinted form is more remarkable for fragrance than some of the newer varieties with larger and richer-coloured heads of blossoms.

Now that the practice of retarding so universally prevails, the Lily of the Valley may be had in bloom throughout the entire winter, and its perfume and beauty are admired by all. Lilium longiflorum, too, from retarded bulbs can be had at this season.

Of bulbous plants the Paper-White Narcissi, which may be had in flower easily by Christmas; and Roman Hyacinths, whose blossoms are always welcome, may be grown.

No notice of sweet-scented flowers for the greenhouse would be complete without mention of that little twiggy Australian shrub, Boronia megastigma, which, though it does not flower in the depth of winter, yet unfolds its earliest blossoms before that season has scarcely left us. So fragrant is it that a single bloom can be detected at some distance. The greenish yellow and brown flower of this Boronia is fragrant and unique. H. P.

THE KITCHEN GARDEN.

A NEW MAINCROP POTATO.

AMONG those Potatoes which have been introduced to commerce during recent years, none is likely to occupy a higher position than the one illustrated and named The Admiral. This was introduced by the well-known Scotch firm of Messrs. Dobbie and Co. two years ago, and was one of the most attractive varieties exhibited at the National Vegetable Society's show in September last. It has a haulm of medium height, and this branches freely, giving the plant a very robust appearance. The beautiful white skin is very slightly netted, and I consider it to be one of the best-flavoured Potatoes in existence; the tubers cook well, and when served represent white, flaky balls. The crop shown in the illustration weighed 65lb., and was the produce of 3lb. of sets that were obtained direct from Messrs. Dobbie last spring. Except that the tubers were arranged together for the purpose of photographing them, the crop is shown as lifted, and it will be noticed that very few small ones are among them. Considering the ground had no special preparation and that the plants were only given ordinary cultivation, I think the crop is a good one, and the quality at the time of writing (December 22) is first-class. H.

VEGETABLES DURING 1910.

THE past year will long be remembered by horticulturists generally as a most unfavourable summer for nearly all branches of horticulture. Severe and continued late spring frosts, continuous rains and long periods of dull, sunless weather had a disastrous effect on many kinds of crops. The one redeeming feature was the absence of early autumn frosts, and during the rather long period which I have had charge of these gardens it is the first time that the more tender vegetables, such as Marrows and Runner Beans, have not been killed till the first week in November. Up to that date we were able to have daily good, fresh gatherings of late-sown Peas.

Probably vegetables have never been exhibited more largely and, in many instances, better than during the past season, and those who have had to deal with soils of a light, porous character have, in many instances, benefited, to the cost of others whose lot it has been to cultivate land of a cold, heavy, retentive nature. The newly formed National Vegetable Society held its first show during the month of September, and it is generally admitted that a finer display of vegetables has never before been brought together.

Potatoes.—These are usually considered to be the most important of all vegetable crops, and, fortunately, they were not so badly infested with the dreaded Potato disease as it was at one time feared might be the case. The early varieties were particularly good, and satisfactory crops in many parts of the country have been reported. May Queen and Duke of York may still be regarded as two of the best early sorts. Windsor Castle did remarkably well with us and, though generally much addicted to disease, lifted remarkably well. King Edward, one of the best of the coloured varieties, was also very fine. The Factor and Up to Date and the varieties allied to them still hold their own for general culture. The new Guardian has once again proved itself by far the heaviest cropper here, almost entirely free from disease, and the quality has been good.

Peas.—These have seldom yielded better crops, the plants being wonderfully free from mildew, and, as there were no severe periods of drought, where the ground was well done and a suitable selection of varieties made, little difficulty was experienced in keeping up a continuous supply. With so many fine wrinkled varieties now on the market it is quite unnecessary to sow any of the more inferior white-seeded sorts. Though it is a fact that a variety may do well in one locality, while in another it almost fails, there are some standard sorts which may be relied upon in almost any part of the country. Gradus and its various selections, including Early Morn, Early Giant and Edwin Beckett, are general favourites for early work, while Duke of Albany, Prodigy and Quite Content are splendid midseason sorts, and for later use Autocrat, Masterpiece and The Gladstone are invaluable.

Aldenham House Gardens. E. BECKETT.

(To be continued.)



A GOOD CROP OF THE NEW MAINCROP POTATO THE ADMIRAL.

THE TOWN GARDEN.

TO MY READERS.—In my first instalment of town garden notes for the year 1911 I appeal at once to the numerous readers of THE GARDEN—and to that section who dwell in towns and suburban districts in particular—for their indulgence, reminding them that it is by no means the easiest of tasks to follow a writer of repute and much practical knowledge. At the same time, having spent many years of my gardening career within the metropolitan area, and knowing somewhat of the difficulties pertaining to the art in other large towns and manufacturing districts, I hope to be able to give from out of the fund of a large practical experience hints of a useful and helpful character to those for whom they are chiefly intended.

UNDER THE GREENHOUSE STAGE in many an amateur's greenhouse there is not infrequently a rubbish-heap, that undelightful medley of pots, flower-sticks, leaf-mould and other things—inseparable from the requirements of all gardeners, it is true—yet which is quite out of place, and certainly very much out of order in the position I have indicated. In other words, it is a case of confusion confounded, and from this point of view—particularly to those who delight in law and order—a great eyesore. It is more than this so far as the health of the greenhouse occupants is concerned, inasmuch as it constitutes a sort of propagating-bed for many species of fungi while affording shelter to woodlice, cockroaches and other pests too numerous to mention. Incidentally, it is not unnaturally a breeding-ground for all of these; hence the forerunner of many a little disappointment, as, *e.g.*, when slug or caterpillar has supped off buds or blossoms, to the irretrievable loss of the latter.

THE THING TO DO in the circumstances is, of course, clear, and this pest shelter so long tolerated must be removed without delay. Let this clearing up, so to speak, before the work of the season be seriously taken in hand, be as a New Year's resolve, and if it be firmly clinched by the still better resolve that "it shall not be permitted again" and that order shall prevail where muddle and confusion existed before, the gardening year, in the greenhouse at least, will have started well.

ORDER OUT OF CHAOS.—Turfy loam, leaf-mould and silver sand are among the essentials to good plant cultivation, even from the amateur's standpoint, while it is just as necessary that such things be kept at hand and practically ready for use at any time. Formerly the soils named were simply dumped down upon the floor beneath the stage, where they mingled indiscriminately together before their time. In the new order of things a small box should be provided for each, and which, with the front end board half removed, would permit of shovelling out the soil with ease. Better still if a small covered bin is provided outside the greenhouse—anywhere, indeed, where it would be protected from rain and so be ready when required for use. In like manner a few clean, dry flower-pots of varying sizes should always be at hand.

S. N. N.

GARDENING FOR BEGINNERS.

PLANT POCKETS FOR THE ROCK GARDEN.

REFERENCE has often been made in these pages to the advisability of planting certain rock plants in pockets, and it is just possible that some readers are not quite clear as to their construction and uses. Now, the pocket consists of a small space between the rocks filled with soil, thus forming a suitable medium for rooting. Before planting there are, however, a few important details that must not be overlooked. To make a pocket successfully the work must be carried out much in the same way as one would proceed to prepare either a pot or a pan before potting up a plant. First of all, it is necessary that the bottom and sides of the pocket should be quite firm and solid, for, should there be any empty cavities, the soil would rapidly become dry, and there would also be a risk of the soil sinking more or less suddenly. When the pocket is low down in the rock garden, a good layer of some open and rough material, such as crocks, clinkers, gravel or stones, should be placed in the bottom for the purpose of carrying off the drainage water. Above this should be placed some rough loam, peat or leaf-soil to cover the drainage, and the top 6 inches to 10 inches may then be finished off with fine soil. It is a common mistake to leave the soil too loose; it should be pressed down with the hands or rammed with a potting-stick as the work of filling the pocket proceeds.

The soil or compost must be blended to suit the requirements of the plants to be grown. For most subjects a good loamy compost with the addition of silver sand is best. Turves about 8 inches deep, lifted from an old pasture and stacked in heaps grass side downwards for a few months, are particularly good for this work when pulled into pieces. Many alpine plants are found flourishing in a limestone soil, and for these it is quite a good practice to mix lime or, better still, old mortar rubble in the compost. For Heaths and peat-loving plants, however, lime must be excluded; but loam and peat, in equal parts, when well rammed down give admirable results. For Ferns and shade-loving plants it is well to introduce a fair proportion of leaf-soil to the compost. Generally speaking, shallow pockets are better than deep ones, and some rock plants, notably Sempervivums and Saxifrages, grow far better when allowed to ramble at will over and between the rocks, as shown in the upper part of Fig. 2. In Fig. 1 is seen a well-made pocket somewhat sheltered and protected by the surrounding rocks. This has been planted with a small, low-growing Dianthus, which in the summer months will form a perfect carpet of rosy pink flowers. Such small plants may be put in rather close together, say, from 2 inches to 3 inches apart. In Fig. 2 are seen larger plants of the Ranunculus or Buttercup family. These are planted in little clumps about 6 inches apart. Each plant has been carefully put in with a trowel, and when so treated the roots take kindly to the soil and the plants soon flourish in their new homes. Even after a few weeks the plants assume a happy and comfortable appearance. The work of planting may be done at this season or any time up till March, providing that the weather is open and suitable. After planting it is perhaps advisable that each pocket should be labelled, despite the fact that it has been somewhere stated that "if a plant is not worth remembering it is not worth growing."



1.—A SHELTERED POCKET IN THE ROCK GARDEN.



2.—ANOTHER POCKET WELL PREPARED AND NEWLY PLANTED.

HOW TO GROW EARLY MINT.

EARLY Mint is always very much appreciated, and as there is generally a large bed of it in the garden, some roots may be lifted and forced in boxes in the frames or houses, and thus prolong the supply. Mint roots permeate the soil much the same as those of the troublesome Couch Grass, and the strongest are always found near the outside portion of the bed. These strong roots or runners are the ones to lift for forcing purposes now. Do not break up the runners too much, but secure them about 1 foot long; then there will be several shoots from each one. Only shallow boxes need be employed, those about 4 inches deep being quite suitable. In the bottom of each one place a thin layer of rotted manure, and scatter a little soot on it. The soot tends to deepen the green colour of the Mint leaves. On the manure and soot put some sifted loam of good quality; then lay thereon the Mint roots about 2 inches apart, and finally cover them 1 inch deep with more sifted soil. The boxes may be placed in any position in the frame or house, but the soil must be kept moist. To greatly hasten the growth of the shoots, put a few boxes on the hot-water pipes, but be sure that sufficient water is always applied.

SHAMROCK.

HOW TO KEEP FORCED FLOWERS IN GOOD CONDITION.

FORCED flowers, especially in a cut state, do not last long in a fresh condition unless they are properly cared for. I have seen beautiful forced flowers placed in vases in a dwelling-room one day and found them quite faded the next. Now, practically all forced flowers are produced in a close atmosphere; very little air is admitted to them, and if, when cut, they are exposed to cold draughts, they will quickly fade and droop. Gather the flowers early in the morning, place them in water on a table—not on the floor nor in any draught—and cover them with a large paper bag, the latter being inverted, of course, and leave them so for the greater part of a day. Then place them in the vases towards the evening and when all windows are closed. So treated, the cut blossoms will retain their freshness for a considerable time. The forced foliage, used with the flowers, must be wholly immersed in tepid water for a day or so before it is placed in the vases.

B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

About Lavender (*J. H. L. B.*).—The best kind of Lavender to grow for scent is the one called by Lavender-growers Lavendula vera. To get the true kind, plants ought to be obtained from one of the Lavender-growers, of whom there are many in the neighbourhood of Mitcham, Surrey. No doubt any nurseryman would be able to obtain them. Loamy soil is the most suitable kind for Lavender, but it must be of rich quality. Pruning means little more than cutting the old flower-stalks down below the top growths as soon as the crop has been gathered. A dressing of well-rotted manure every second year will answer as a stimulant, but the bushes need replacing every few years, and it is advisable to give a change of ground when this is done.

Plants for rockeries (*S. H. Baker*).—For rockeries generally only the dwarfer subjects would be suitable. Megaseas, alpine and setacea Phloxes, Antennarias, Achillea tomentosa, Arnebia echioides, Plumbago Larpentæ, Lenten and Christmas Roses, any of the Hepaticas, Anemone nemorosa, A. blanda, A. sylvestris, Mossy Saxifrages in variety, Campanulas, such as garganica, muralis, carpatica, Pulla, Stansfieldii, Profusion and others; Thalictrum minus, Sedum spectabile, white Colchicum, Snowdrops, Chionodoxas, Scillas, dwarf-growing Daffodils and Fritillarias would all be of service. Of Grasses, Dactylis, Stipa pennata and Erianthus Ravennæ would be useful. Should this reply not prove serviceable, please repeat your query and give fuller particulars as to size and environment.

Flag Irises (*M. E. M.*).—It is in the very nature of things that the Flag Iris is left long undisturbed and lift their rhizomes or rootstocks to the surface, the more so if the plants are crowded. This, however, does not always prevent their flowering, which may be due to other causes. Occasionally the plants develop into clumps 4 feet across, and still flower well from the newly formed rhizomes. In all the circumstances, perhaps the plants would be better divided and transplanted, but the best time is not now; March would be far better. Even then the rhizome must not be deeply buried, but merely covered by the soil. In replanting these things all the old, *i.e.*, the back, sections of the rhizomes should be discarded, reserving only the growths of the present year for the purpose. To transplant such things in large masses intact is to court failure from the start, and, where groups are desired, a dozen or more should be freely arranged over a yard wide area for the purpose. In any case, you will get no flower this year, but you will be ensuring a good flowering a year later.

Iris Kæmpferii (*F. B.*).—This Iris and its well-nigh endless forms delight in abundant supplies of moisture, or its equivalent, a great depth of rich loamy soil. It is occasionally treated as a bog plant, and by some given field culture, the latter not infrequently, and in a year like 1910 providing a finer display of flowers than the former. If you strike the happy medium between bog and field culture, giving the plants a depth of 2½ feet of rich moist loam, you will not have much to fear as to the result. Regarded generally, these Irises are gross feeders, and where they must by force of circumstances be grown in light, much-drained or very sandy soils, and watered by artificial means in summer-time, you will not easily overdo them in this respect. In your district you may plant them now, while April is perhaps the best month of the year. If arranged 1½ feet apart, this will do for a year or two. The Bordeaux mixture may be had from Messrs. Voss and Co., Chemical Works, Millwall, London, E., ready for use.

Violets (*C. W. H.*).—The plants are evidently attacked by one of the fungi common to this plant, but without leaves we cannot say which. All you can do is to collect and burn all the affected leaves. It is highly probable the closed condition of the frame may have been a predisposing cause, and with more air and drier overhead conditions generally there may be no serious repetition of the attack. The Carrots and other root crops have probably been attacked by one of the millipedes or other ground pests, for which you might try one of the soil fumigants, such as Apterite and the like. These are supplied in tins or other receptacles, and instructions are sent for their application.

A boggy corner (*Vindex*).—You speak of the corner as a boggy one, but you say nothing whatever about the water at the spot or the amount of saturation which warrants the expression employed. If it is really a wet corner, certain of the Bamboos, as Phyllostachys nigra, Bambusa palmata and others, would be perfectly at home. In like manner the Sea Buckthorn, Scarlet Dogwood, particularly Cornus alba and C. a. sibirica, would be most valuable for winter effect, while Lobelias, Liliums and other plants would prove of value and interest. In the circumstances we think you had better furnish us with more definite particulars as to the degree of wetness existing, so that any advice we may give may be of a really helpful nature. Upon hearing from you again, we will deal fully with the matter.

Lilium candidum (*Ignoramus*).—Yes; you certainly are "all wrong in your theory" that, because new leaves have been produced from the base, the Madonna Lily is "wasting its strength." On the other hand, it is the best evidence of vigour that you could be possessed of. The Madonna Lily is, in fact, an almost evergreen species, and each year in healthy examples these new basal leaves are produced soon after flowering is over. Such leaves developing to their full are a sign also that new basal roots are being produced in proportion, and upon these two things the plants depend for their perennial vigour. In March or April from the centre of this green leaf-tuft will be seen emerging the flower-stem for the year, and, provided disease does not overwhelm the plants, a good flowering should ensue. Leave the plants strictly alone and attempt no more manuring, as this species is not a great lover of rich supplies of food.

Rock garden (*E. C.*).—We have never experimented in the use of peat-moss litter as a medium for growing bog plants, and should hesitate to use it in quantity. Quite a number of good bog plants require nothing more than rich mud, and a substitute may be composed of moderately good loam, leaf-mould and a very little old manure. Such Primulas as Sieboldii in variety, rosea, denticulata, japonica, pulverulenta and bulleyana would all be perfectly happy in such a soil mixture, while with a third more of leaf-soil and a good sprinkling of peat siftings Sarracenias, Trilliums, Cypripediums, Anemone robinsoniana, Rodgersia podophylla, Gentiana Andrewsii, G. asclepiadea and Lilium pardalinum can be grown with satisfaction. Cypripedium spectabile is perfectly at home in the bog, and is the best of its race, while C. Calceolus and C. acaule, all perfectly hardy, require a raised place where less wet would be experienced. Sarracenia purpurea is the only really hardy kind, and even this in your Midland district is not to be regarded as a permanent success without shelter.

Christmas Roses (*Collapit*).—If we deal with your questions *seriatim*, the answers are these: 1. Which is the best month to plant?—September. 2. Can the clumps as received from nurseries be planted intact?—Yes; as a rule. 3. What is the best situation to plant in?—A moderately open one, with shade from Hollies or the like during the hottest part of the day. 4. Are they hungry feeders?—The plants delight in rich soils well made to a depth of 2½ feet, but are not to be regarded as having a voracious appetite. 5. Is it true that the leaves of Christmas Roses must never be cut?—It is decidedly opposed to the well-being of the plants to cut their leafage, and cutting should be avoided as much as possible. 6. What are the best sorts to grow?—Maximus, November flowering; major, or Bath variety, for Christmas; and angustifolius for January. To the foregoing answers to your enquiries we might add in a general way that, if planted in September, the ordinary nursery clumps might be planted as received if of not more than six crowns each. If above this number, divide them, not by cutting with a knife, but by placing the point of a small handfork into the clump, this to be first placed on its side, and then wrench it asunder. As to soil, this cannot be too good or too deep, the plants in health sending their main roots down to fully 3 feet. Heavy, tenacious soils should be lightened and perfectly drained, leaf-soil, grit, limestone chippings or old mortar being added without stint, as well as manure, while incorporating all together.

Violet leaves for examination (*W. A.*).—There is no fungus on the leaves of the Violets sent. The plants should be thoroughly examined at the base, and if it is found that there is a growth there of an ashy grey fungus, it would be well to remove all the parts attacked as carefully and completely as possible. In any case, take away the dead and decaying parts, and spray the remainder with a solution of potassium sulphide at the rate of 1oz. to three gallons of water. We have found this fungus most prevalent when the plants have been stimulated too greatly, and especially when they have been overcrowded so that air could not circulate freely among them or when ventilation at every opportunity has been omitted. The texture of the leaves suggests a rather close atmosphere at times.

THE GREENHOUSE.

Pruning Plumbago (*R. H. M.*).—You can prune these now. Just remove superfluous growths so that the plant is not overcrowded. Lateral or side shoots shorten back to 3 inches or 4 inches of their base; then well spread out the remaining growths. Keep the plant on the dry side for a time.

Rose Crimson Rambler attacked by mildew (*R. H. M.*).—Your plant has had a bad attack of mildew. The Rose is much addicted to this fungus, and it is aggravated if the plant suffers at all from drought. Another season see that the roots are supplied with water, and occasionally with liquid manure during May, June and July. Remove now some of the oldest growths, which, although late for this work, will assist the young growths to ripen well, for it is from the well-ripened young growths that we obtain the best blossoms.

Rose Gloire de Dijon in greenhouse (*R. H. M.*).—You have evidently kept the tree growing too late. It would have been better had you given plenty of air and turned off heat, so that the plant could have ripened its growths. But perhaps the other occupants of the greenhouse would not allow of this. The best plan will be to cut off the extreme ends of the growths; then spread out well all growths and syringe with carbolic soap solution, half a pound to three gallons of water. Withhold water at the roots for a few weeks. The foliage will mostly fall; then when new growths are about 1 inch or 2 inches long you can water the plant.

How to increase Metrosideros floribunda (*Mrs. E. L.*).—It can be increased by seed, but plants obtained in this way take a much longer time to flower than those obtained from cuttings. These last are not difficult to strike, provided one has the necessary appliances; but at the same time they are not what may be considered easy subjects to root, their propagation being usually left to nurserymen. Cuttings are taken about May or June. The young shoots will have lost their succulent character and have become partially woody, being what is usually termed in a half-ripened state. A length of 3 inches is a very suitable one for the cuttings, which should be cut off with a sharp knife immediately below a joint, and, two or three of the bottom leaves having been removed, they are then ready for insertion. The pots prepared for their reception must be half filled with broken crocks, and the remaining portion made up of a mixture of loam, peat and silver sand, in equal parts, passed through a sieve with a quarter of an inch mesh. This must be pressed down very firmly and be made quite level. The cuttings, being securely dibbled therein, must have a good watering through a fine rose, and then

be placed in a close propagating-case in a warm greenhouse temperature. They must be kept shaded from the sun till they root. Failing a propagating-case, the cuttings may be covered with a bell-glass. They can be struck in the warmest part of an ordinary greenhouse.

Injury to leaves of Datura (*Loughborough*).—The injury to the leaves is probably due to some insect or night-feeding moth. There is nothing on them to indicate the cause. The plants may be cut down soon after they have finished flowering and be kept on the dry side for the winter in a cool house.

Fern attacked by a fungus (*F. C.*).—The fungus sent is not likely to do much damage to the Ferns among which it is growing. It is feeding on the decaying matter in the soil, not upon the living plants, and the white grubs to which you refer are feeding upon the fungus, and will eventually become two-winged "fungus flies."

Cineraria plants for inspection (*F. H. T.*).—There is no doubt that the attack of green fly is the chief cause of the trouble. Whenever leaves are seriously damaged the root is bound to suffer, for it depends entirely upon the leaves for the food it requires to enable it to grow. In addition to using food the plant made for itself, the green flies form honeydew, which further prevents the proper interchange of gases, and so the plant suffers.

Injury to Begonias (*A Reader*).—The Begonias are attacked by the Begonia mite, an insect allied to the red spider, and very troublesome. Fumigate with a nicotine preparation, or such a fumigant as XL All or Abol, at intervals of three or four days, about three times (more, if necessary). This will kill the insects as they hatch. Dipping the plants in a solution of a handful of soft soap in which flowers of sulphur have been kneaded in 1½ gallons of water is also a useful means to adopt.

Injury to foliage (*K. B.*).—The injury to the Ivy-leaved Geranium and Ferns is evidently due to the fumes given off by the pipes when hot. A mixture containing tar should not be used for coating hot-water pipes in greenhouses. Ordinary black paint which is made with vegetable black or lamp-black, mixed with oil and driers, is best, as although smelling a bit at first, this soon goes off and is not injurious to plant-life. The plants ought to be moved out of the house, and then the pipes should be cleaned and afterwards painted.

Injury to Begonias (*J. B., Bristol*).—The Begonia roots are infested with the root-knot eelworm, one of the commonest and most troublesome pests of plants under glass, attacking especially Melons, Cucumbers and Tomatoes. When it once occurs in such numbers as your plant shows, there is nothing for it but to destroy the whole lot by fire, to discard the soil, burning it if possible, to take care that none gets into any of the fresh soil that must be used, and to sterilise the pots by soaking them in hot water; also none of the crocks should be used unless they are soaked in hot water beforehand. Every bit of soil is infested with the eggs of the worms. There is no cure. The only thing to do is to take every possible step to prevent the same thing happening again.

Chrysanthemum flowers pale in colour (*F. J. B.*).—Continuous dull weather and insufficient ventilation have a tendency to make the flowers of Chrysanthemums pale in colour, while a very important matter in this respect is the feeding with liquid manures. Soot-water has a tendency to induce depth of colour, but the most marked of all stimulants in this respect is sulphate of ammonia. This is very powerful, and should not be applied at a greater rate than half an ounce to a gallon of clear water. You say nothing as to the lightness or otherwise of the structure in which the plants are housed, or to the stimulants given; but if you have not used sulphate of ammonia you will, another season, doubtless find it play an important part in the colouring of flowers.

Repotting a Nephrolepis (*Miss D.*).—In a warm greenhouse the Nephrolepis might be potted at any time except in the depth of winter, but in an unheated greenhouse the better plan will be to wait until the end of March or early in April. A suitable compost is equal parts of loam and peat or leaf-mould, with a liberal sprinkling of sand. The brown tips of the fronds doubtless result from the cold. In repotting, only the shabby fronds should be cut away. From the fact that the Fuchsias have started into growth, we presume they have been kept watered since they were taken indoors. They should at this season be kept almost dry, as they then remain dormant, or nearly so, until the spring, and if then watered they break out with increased vigour owing to the rest they have had.

TREES AND SHRUBS.

The hardiness of Cedars (*L. Bel.*).—The remarks about Cedrus Deodara to which you refer do not mean that it should be placed in a very bleak, exposed situation, but that it is a good tree to plant in a garden in an isolated position, that is, where it can develop freely without being crowded by other trees. It would not be advisable to plant it in places where severe winters are experienced, for it is decidedly more tender, especially in a young state, than either Cedrus Libanii or C atlantica. We advise you to select C. atlantica and C. a. glauca in preference to C. Deodara and C. D. glauca. In any case, better results are obtained from trees which are somewhat sheltered than from those which have been placed in fully exposed situations; but to obtain well-developed specimens they ought not to be crowded. They will grow in sandy loam, but better in richer material

ROSE GARDEN.

Pruning climbing Rose (*Forgate*).—If the Rose is not too rigid in its growths, rather than cut away any of the shoots we should advise you to bend them in a zigzag fashion. Even if you could only bend them something like the letter "S" you would find new growths would break out near the base very soon. If, however, the plant will not submit to this treatment, cut back one or two of the oldest branches right down to the ground at once. Leave the green Rose tree unpruned for a year or two.

Perpetual-flowering climbing Rose (*H. H.*).—The following, in order of merit, are all good kinds that bloom early and late. Those kinds marked with an asterisk are not perpetual flowering, but are good late-flowering sorts, so that they can well be planted with perpetual-flowering varieties. Teas, Hybrid Teas and Hybrid Perpetuals: Gloire de Dijon, Ards Rover, Zepherin Drouhin, Climbing Mrs. W. J. Grant, François Crousse, Longworth Rambler, Climbing Testout, Climbing Victor Verdier, Mme. Alfred Carrière, W. A. Richardson, Aimée Vibert and Bouquet d'Or. Perpetual and late-flowering Polyantha and wichuraiana Roses: Perpetual Crimson Rambler, Alister Stella Gray, *White Dorothy, *Dorothy Perkins, Paul Transon, Trier, Belle Vischyoise, Débutante, Alberic Barbier, Fairy, *Lady Godiva and *Hiawatha.

Roses for August and September flowering (*Miss I. H. J.*).—The following varieties are all sweetly fragrant and suitable to plant in your country cottage garden, where they would yield a fine display of bloom during the months of August and September: Climbers—Zepherin Drouhin, Hugh Dickson, Pink Rover, Grüss an Teplitz, Reine Marie Henriette, Noella Nabonnand, Sarah Bernhardt, J. B. Clark, Gloire de Dijon, Mme. Alfred Carrière, M. Desir and Johanna Sebus. Dwarf—Mrs. J. Laing, Dupuy Jamain, General Jacqueminot, Mme. V. Verdier, Dr. Andry, Mme. A. Chatenay, General Macarthur, Mme. I. Pereire, Augustine Guinoisseau, Gustav Grunerwald, Mme. Jules Grolez, Pharisaer, Ulrich Brunner, Fisher Holmes, Louis van Houtte, Ella Gordon, Captain Hayward, Mme. Ravary, Dr. O'Donel Browne, Beauté Inconstante, La France, Laurent Carle, Marquise Litta, Richmond and Viscountess Folkestone.

Rose White Cecile Brunner (*C. M.*).—This is a really very delightful little Rose, and we are not surprised that you value it. We believe it will become very popular. Some English growers catalogue it. The address you ask for is Ketten freres, Luxembourg, Germany.

Protecting rambler Roses (*A. G.*).—Generally speaking, the sorts you name are hardy. It may, however, be advisable to protect these young growths with some Bracken Fern or evergreen boughs, but that would only be necessary in case of severe weather, such as zero frost. The Conrad F. Meyer is only shedding some of its bark, and we think you have no cause to be anxious about it.

Forming a Rose garden (*L. J.*).—Your list is an excellent one, and we cannot well improve upon it. Mrs. A. R. Waddell is not a very tall grower, but it is a good variety and a most delightful Rose. You should try to find room for Joseph Hill, Geo. C. Waud and Antoine Rivoire, but we cannot recommend you to leave out the others, as they are all so good. Harry Kirk is one of the best yellows, but badly addicted to mildew.

Standard Briars (*Standard*).—It is not a good plan to transplant budded Briars the autumn following the budding. Why not plant the Briars in their permanent positions now? We had an old gardener friend who used to do this, and although the appearance of Briars among the standard Roses does not look nice, yet our friend used to obtain some grand heads to his standards owing to the non-transplanting, which, though very carefully done, gives a certain check to the growth.

Roses on balcony (*D. R. W.*).—You could grow some Roses very well in pots on your balcony which faces north, but you would need to obtain pot-grown plants. We should advise you to ask some nurseryman to supply you with plants in pots next May, plants that have been grown outdoors in their pots, and which by that time would be showing bud. They could then be placed inside larger pots and the cavity filled up with Cocoanut fibre, which would aid in the preservation of moisture. Ask for plants in 8-inch pots, either ramblers or hardy sorts such as Caroline Testout, Frau Karl Druschki and La France. The scarlet-berried Cratægus Pyracantha would also look nice on such a balcony. You could purchase plants now with the berries on them; then replace them with Roses in May.

FRUIT GARDEN.

The best recipe for destroying mealy bug on Vines (*J. P.*).—There is no remedy which we know of that will rid a vinery of this pest by one or two applications, whether applied in winter or any other time. But if a good and carefully applied winter dressing is followed up diligently in spring and through the following summer, we have no hesitation in saying that it can be got rid of. We need not repeat here what has been so often said before about thoroughly cleaning the vinery itself as well as clearing out 1 inch or 2 inches in depth of soil from the surface of the border, in which, no doubt, it frequently finds a harbour of refuge during winter. Having rubbed off the rough, loose bark of the Vines with the hands, wash the Vines carefully and thoroughly with Gishurst Compound. Afterwards get some clay and mix with water until it becomes of the consistency of thick paint, adding to the water before mixing with the clay half a pint of strong Tobacco water to the gallon of water. Paint your Vines all over with this mixture (eyes and all) and leave on until it peels off the following spring and summer. It will do the Vines no harm, and if it does not poison any bug left behind, it will prove to be a lethal chamber by smothering them.

Winter dressing for Vines to destroy mealy bug (*Homa*).—After thoroughly washing the rods with Gishurst Compound (which is in itself an excellent insecticide) paint the Vines over (eyes and all) with the following mixture: To one gallon of water add half a pint of paraffin, previously mixing the paraffin in hot water with half a pound of soft soap into a thick soapy emulsion. Add afterwards half a pint of strong Tobacco water and as much pounded clay as is necessary to thicken the mixture into the consistency of thick paint.

MISCELLANEOUS.

Preservation of Fern and Asparagus fronds (*W. W.*).—In order to preserve fronds of Maidenhair Fern and Asparagus, we have been given the following recipe, but have not had an opportunity to try it: Fully matured fronds must be gathered while they are quite dry and carefully placed between two sheets of blotting-paper, and there be pressed for about forty-eight hours. Then procure a wooden box which can be made air-tight and suspend the fronds in it. Next place an earthenware cup containing a small quantity of muriatic acid and sulphur in equal proportions in the box, and seal up the latter by pasting paper over the joints. Leave the fronds in the box for about forty-eight hours. The acid and sulphur may be obtained from a chemist's shop. Maidenhair Ferns that have been preserved in a perfectly natural manner may often be seen exposed for sale. These are done on the Continent, and are, we believe, immersed in a bath of clear celluloid; but this is, of course, a trade secret.

Bottling vegetables (*Stafford*). — The following directions as to the bottling of vegetables for preservation applies only to what are known as the Anglo Belge Bottles, having patent screw capsules. Fill the jars with small, round vegetables, such as Peas, or Beans, whole, larger kinds in portions, neatly and closely packed. Pour in cold water until they are covered, stand the bottles in an upright position into a proper vessel or a pot which contains cold water, keeping each bottle separated by the addition of a wisp of hay. Put on the rubber rings and glass tops and caps, and just partially screw these on, then slowly boil or steam the contents of the bottles. When done, remove the bottles from the vessels, and screw the tops or capsules down tightly

and leave the jars to cool. After that the caps remain close or fixed by atmospheric pressure. You may obtain full particulars as to the price of bottles and such other details as you may desire from the Anglo Belge Glass Association, 13, St. Andrew Street, E.C.

Seeds for cold frame (*S. G. S.*).—The only seeds you could sow in a cold frame would be either those of hardy herbaceous plants such as Gaillardia, Coreopsis, Sunflower, Campanula, Trollius, Columbines, Aubrietias and the like, or such annuals or biennials as Mignonette, Canterbury Bell, Sweet Peas, Sweet Sultans, or other flowers which it may be desired to have at an earlier date than those sown in the open. The seeds of herbaceous plants sown now would hardly attempt to vegetate before February or March, though the others named may do so in much shorter time.

Autumn-sown Sweet Peas (*E. C.*). — These will be all right if kept as cool as possible by admitting air day and night while mild weather continues; in fact, avoid any coddling, and only close or protect the frames in severe weather.

Creosoting Oak posts (*Hon. Mrs. M.*).—Providing the posts have been well dried between being taken from the creosoting tank and placed in the ground, we do not think that they would materially affect the growth of your Roses, though we have not experimented personally with plant growth and newly creosoted posts. We should advise you to place the roots a little distance away from the posts when the planting is done, and to leave the work until the end of February or beginning of March, which will give the ground round the posts a chance to sweeten.

Sycamore posts and Roses (*C. B. B.*).—Sycamore posts are not good ones to use for climbers, as they do not last very long. Sycamore is very subject to attacks by the coral spot fungus (Nectria cinnabarina), hence it quickly decays. We have known all the varieties of Rose you mention to do first-rate on their own roots, and you need not fear that they will not grow well, providing you give them good soil to begin with. We should not advise you to use Dorothy Perkins for your ninth variety, as it is very like Lady Gay, but advise you to plant Tea Rambler or Philadelphia Rambler. The former is pink, the latter red.

Diseased Carnations (*Anxious*).—The Carnations are attacked by the fungus called Heterosporum echinulatum. The disease produced is often very troublesome in damp places or in ill-ventilated houses. If plants are badly attacked among other healthy ones, it would be better that they should be isolated. Diseased foliage should be removed and the neighbouring plants sprayed with a solution of potassium permanganate (rose red solution). Care should be taken that the foliage is not wetted in watering and that the air is kept dry by proper ventilation. Avoid draughts or anything approaching a sudden chill to the plants.

Orchid to name (*L. F. B.*).—The Orchid is neither Oncidium Forbesii nor Burlingtonia fragrans, but Rodriguezia candida, often called Burlingtonia. The cause of the flowers failing to open is purely local, and must be looked for in the house. We would suggest a few degrees more warmth during the growing period, and when the spikes appear admit a little air from the top ventilators, while the plant must not be overwatered at the root. Perhaps it has not yet become properly established, and thereby is not in a fit condition to support the blooms. If it is healthy, we should leave it in its present position, when it will flower in due season.

Books on gardening (*C. B.*).—There are, of course, many books with coloured plates descriptive of what may fairly be termed "common garden flowers." We presume what you require is something reasonably modern and not limited to bulbous plants, of which there are several very fine ones. In French there is Vilmorin's "Fleurs de Pleine terre," a most comprehensive work, which is illustrated with some hundreds of black-and-white illustrations, and also some coloured ones. "Beautiful Flowers and How to Grow Them," by Horace J. Wright and Walter P. Wright, two volumes (published by E. and T. Jack), and "Beautiful Garden Flowers for Town and Country," by John Weathers (published by Simpkin, Marshall and Co.), are both entirely illustrated in colour. Then there is Cassell's "Familiar Garden Flowers." Of older works there are Shirley Hibberd's "Garden Favourites" and Tyas's "Popular Flowers," first and second series, both long since out of print, but which may be picked up second-hand. Still older and rather more expensive are Sweet's "British Flower Garden" and his "Florists' Guide," in both of which the plates are finely done, and consist chiefly of florists' flowers. There is also Paxton's "Flower Garden," three volumes. "The Florist's Museum," by Fred W. Smith, 1836, also contains many coloured drawings of florists' flowers, but these you may not consider for your purpose as common garden flowers. John Wright published some years ago a work in six volumes entitled "The Flower Grower's Guide," in which there are many coloured plates. We might also mention "The Best Hardy Perennials," by F. W. Meyer, which contains forty-eight capital illustrations in colour. "Florilegium Haarlemense," of which there is an English edition, edited by Edward Step, contains sixty fine plates, and Van Ellden's "Haarlem's Flora," containing 120 fine plates, are both devoted to bulbous plants. On all such matters we cannot do better than refer you to Harman Payne's "The Florist's Bibliography."

Garden pest (*A. E. C.*).—It would have been more satisfactory had you sent a sample of the grub, as it is difficult to identify it from the length you give or from your description of its colour. As you have tried lime, you might also try soot, liberally applied to the surface and dug in, or one of the so-called soil fumigants, such as Apterite or Vaporite, now so much in vogue. You do not say if any particular crop is fancied by the pest, or whether its attacks are general.

Insects for identification (*Anxious*).—The little greyish brown beetles which you send are specimens of a beetle called Ptinus. It is often common in old houses, where it feeds on various materials, such as old wood and various vegetable substances. It is doubtful whether much can be done to lessen the pest, unless you can discover what it feeds on in the particular case and set a trap of the material at the bottom of a basin, up the sides of which it cannot climb. This method is practically the only one of use in inhabited houses. Where the place can be entirely left for a time, fumigation with formalin or with carbon bisulphide may be adopted, and this is a very useful method in granaries. The presence of a few of the creatures is not to be looked upon with any degree of fear.

Refuse from carbide of calcium (*Acetylene*).—Refuse from acetylene gas generators may be used on the soil in the same way and to the same amount (about half a bushel or a little more to the rod) as ordinary slaked lime. Slaked lime is its chief constituent. It is well to leave it exposed to the air for a time, in case any sulphides or phosphides are present, so that they may be turned into innocuous substances. If it has been exposed to the air for a considerable time, it will be converted into chalk, and will then do no harm to cattle if spread over a meadow or pasture. Dressings are best applied in autumn, but may be dug in at almost any time. Crops do not absorb any very great amount of lime, and the chief benefit of lime in any form is the effect it has in coagulating and opening clayey soils, correcting acidity and setting potash free.

Worms on lawns (*H. H.*).—A strong solution of lime and soot, made by dissolving the first and soaking the second at the rate of one peck per twenty gallons of water, makes a potent destroyer of worms on a lawn. The lime solution should stand after being made fully forty-eight hours before using it, when it ought to be clear. It should be applied by means of an ordinary water-pot with a spreading rose on the spout, and late in the evening, as the worms are then on the surface or near to it. Of course, if the worms are so destroyed, all worm-casting ceases; but should one application not suffice to destroy all, then a second one may be made a week later. Necessarily, you need a large tub or barrel in which to make the solution. If you use soot, it is best put into a coarse canvas bag, loosely tied, then suspended in water, but frequently moved, so that it may be fully soaked. Lime dissolves absolutely, but soot does not.

A sunken fence (*Ilex*).—It will depend entirely upon the nature of the soil as to what foundation will be required in constructing the fence. If the subsoil is of clay, a double width of stones in one layer will suffice; if of a sandy or gravelly nature, or any substance readily acted upon by water, something more might be needed, preferably a bed of concrete, say, 2 feet in widtn and 1 foot in thickness. The material you have at your disposal is in every way excellent, and with careful bonding of the larger stones great strength would be secured. The stones should be laid dry, merely working a sufficiency of fine soil into the interstices of the stones to promote steadiness while fixing, making the back soil firm as the work proceeds so that no vacuum exists and subsequent setting is reduced to a minimum. In a wall of 4 feet in height with these precautions a batten of 1 foot in 4 feet would be sufficient. The height of the wall must be decided on the spot as much by the nature of the surroundings as by the cattle or animals it is intended to keep at bay. A well-formed trench is of importance, and this should be about 12 feet wide.

Names of plants.—*R. B.*—1 and 2, Cupressus macrocarpa; 3, Pseudotsuga Douglasii; 4, Pinus montana; 5 and 6, possibly Abies nordmanniana, but the specimens are very poor; 7 and 8, Cupressus lawsoniana; 9, Pinus insignis; 10, Sequoia gigantea; 11. Quercus Ilex variety; 12, Olearia stellulata.——*T. R.*—Abies species; the specimen is too poor to identify correctly.

SOCIETIES

ST. IVES, HUNTINGDONSHIRE.

As is usual, a good show again took place on Monday, December 19, in The Broadway. The produce, which includes fruit, vegetables and other farm and dairy produce, is staged in a large marquee, and, being held on a market day, considerable interest is accorded this somewhat unique show, and the attendance is great. With such a practical working committee there is small wonder that such success is maintained, and much interest is taken and support given by the president, C. H. Coote, Esq., J.P., and the hon. treasurer, R. M. Copley, Esq.

For single dishes of cooking Apples there were many entries, and very fine examples were staged of Lane's Prince Albert, Mere du Ménage, Bramley's Seedling and Bismarck. Strange to relate, Bramley's Seedling in each instance was a prize-taker: First, J. Linton, Esq., Stirtloe; second, T. King, Esq., Colne; third, M. N. Day, Esq., Findarton.

For one dish of five Cox's Orange Pippin there were eleven entries, all being of excellent quality: First, G. Hunnybun, Esq.; second, R. M. Copley, Esq.; third, G. D. Day, Esq.

For a dish of five dessert Apples other than Cox's, C. Cousins, Esq., was first with Allington Pippin; second, R. M. Copley, Esq., with fine Ribstons; third, E. Anderson, Esq., St. Ives.

For three dishes of dessert Apples there were eight entries, J. F. Hooley, Esq., showing remarkably fine dishes of Cox's, Ribstons and Blenheims, and securing the premier award. G. Hunnybun, Esq., was second, and W. J. Humphreys, Esq., third.

For a dish of twelve Apples, cooking and dessert, mixed, in six varieties, two of each kind, C. Cousins, Esq., was first, second and third honours going respectively to R. M. Copley, Esq., and J. Linton, Esq.

For three dishes of dessert Pears T. Longman, Esq., was first; J. F. Hooley, Esq., second; and R. M. Copley, Esq., third.

For a dish of five dessert Pears T. Longland, Esq., was first with magnificent specimens of Doyenné du Comice; W. H. Humphreys, Esq., second; and C. H. Coote, Esq., third.

Potatoes were also largely shown, and excellent tubers were staged of both kidney and round. For kidney shape: First, C. H. Coote, Esq.; second, C. E. Girling, Esq.; third, G. D. Day, Esq. Round: First, C. Cousins, Esq.; second, E. E. Chambers, Esq.; third, G. D. Day, Esq.

Onions were shown in fine size and were remarkably finished: First, C. Cousins, Esq.; second, J. F. Hooley, Esq.; third, F. Golding, Esq.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE last meeting of the autumn session took place on Wednesday evening, December 21, when there was a very fair attendance of members. Nominations of officers and committee for 1911 were first taken, and then the chairman introduced Mr. F. Townsend of Hillside Gardens, Reading, who gave a very interesting paper on the "Chinese Primula," illustrated with lantern slides. The points dealt with were: The history of the Primula, its cultivation from seed-sowing to the flowering stage, and varieties. There were some beautiful pictures of specimen plants and groups of Sutton's well-known strains. A good discussion followed, and at the close a hearty vote of thanks was accorded Mr. Townsend and carried with acclamation. Mr. W. Glen showed a number of bunches of Violets, for which the judges awarded him a cultural certificate.

NATIONAL DAHLIA SOCIETY'S ANNUAL MEETING.

THE annual meeting of this society was held at the Hotel Windsor on Tuesday, December 20, Mr. Edward Mawley, V.M.H., president of the society, in the chair. After the formal business of reading the minutes was over, Mr. E. F. Hawes was called upon to read the report of the committee for the past year, which was of a favourable character.

The president, in moving its adoption, congratulated the society on the excellent work they had carried out during the year, and thought it gave some indication to the future prosperity of the society. Mr. John Green, who seconded the motion, also spoke of the renewed vigour with which the society had been conducted during the past year. Mr. George Gordon, V.M.H., chairman of committee, quite agreed with the previous speakers as to the value of the conference and the trials of varieties, but thought that an earnest endeavour should be made to increase the funds of the society. Mr. J. Cheal supported this, and informed the meeting that the general committee had just previously been carefully discussing this question, and he hoped they had arrived at a satisfactory method for carrying this into effect during the coming year.

On the motion of Mr. G. Davidson, a hearty vote of thanks was given the retiring officers and committee for their services during the year. This was seconded by Mr. R. Hooper Pearson, who congratulated the committee on their excellent report, which, in his opinion, augured well for the future prosperity of the society.

On the motion of Messrs. C. H. Curtis and J. Green, By-law 4 was amended in order that the annual meeting of the society should be held on the last Royal Horticultural Society's meeting in November instead of the third Tuesday in December as at present. Messrs. J. Green and J. Harrison Dick proposed the amendments of By-laws 3 and 6, thus adding a chairman of committee to the present list of officers. These were carried. The number of members of the executive committee was increased from twelve to eighteen on the motion of Messrs. J. B. Riding and C. Luckin. The following officers were unanimously re-elected: Mr. E. Mawley, president; Mr. G. Gordon, chairman of committee; Mr. John Green, hon. treasurer; Mr. W. Stephens, hon. auditor; and Mr. E. F. Hawes, hon. secretary. The patrons and patronesses were again appointed, and the vacancy on the list of vice-presidents, caused by the removal of Mr. T. Hobbs, was filled by the election of Mr. John Green. The general committee were re-elected with the addition of Messrs. H. Shoesmith, H. Peerman, G. Davidson and A. Langridge. A hearty vote of thanks to the president concluded the meeting.

A meeting of the general committee was held immediately after the annual meeting for the election of the executive committee, Mr. G. Gordon presiding. The following members were added to the present number: Messrs. C. H. Curtis, J. Harrison Dick, W. F. Laurie, G. Davidson, A. Turner, C. Luckin and J. Emberson. After considerable discussion it was decided that all committee meetings should be held at 4 p.m.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

SOME LITTLE-KNOWN ANNUALS WORTH GROWING.

WITH an ever-increasing demand for flowers of bright colours and long stems, so that they may be cut and used for indoor decoration, there is a danger that some of the more unpretentious-looking hardy and half-hardy annuals suitable for growing in our gardens during the summer may be entirely overlooked. It is true that many of the lesser-known annuals can never, on their merits alone, demand the same amount of space in our gardens that is devoted to their more deservedly popular brethren; but at the same time we ought not to go to the other extreme and allow them to drop out of cultivation altogether. Many of them possess a quiet, old-world charm that appeals strongly to those with artistic tastes; and it is proposed to draw attention to some at least of those annuals which are seldom met with outside seed trial-grounds or cottage gardens.

It is strange indeed that certain flowers, although possessing equal, if not superior, qualities to those so largely in vogue, never seem to become popular with the general public. As an example of this we need only mention the charming little Swan River Daisy (Brachycome iberidifolia), an annual that will thrive without much attention if given a sunny position and well-drained soil that is not too clayey. Its dainty little blue or white Cineraria-like flowers, supported on slender green stems, are beautiful in the extreme, yet for some reason or other it has never become popular. Leptosiphon hybridus is a dwarf annual that reminds one when in flower of the charming little Creeping Sandwort (Arenaria balearica), except that its dainty star-like flowers, poised gracefully on slender stems, embrace a wide range of rich colours. As an edging in a sunny position this annual is beautiful in the extreme, yet it is seldom seen in private gardens. Seeds ought to be sown where the plants are to flower.

In Schizopetalon Walkeri we get an annual of unique aspect, caused primarily by its feathery-like petals arranged in the form of a cross. It appears to appreciate rather light soil, and although not particularly showy, emits a delightful fragrance when moistened with the evening dew. This reminds us of the insignificant-looking Night-scented Stock, which, though grown more widely perhaps than most of the other kinds mentioned, is not grown half enough. It is true that during the daytime its foot-high stems present a rather gaunt appearance; but if it can be given a station in an inconspicuous spot near to the dwelling-house, its fragrance in the evening, when its pale lilac petals unfold, will more than repay us for giving it room.

Those who are interested in the curious aspect of plant-life might well endeavour to grow Martynia fragrans. It is true that this little-known annual is not one of the easiest to grow, and demands to be raised in pots in the greenhouse and planted out in rather sandy soil with a sunny position in June; but when the plants do get established and the purplish flowers are followed by the large, hooked fruits, admirably adapted for distribution by animals, the owner will be compensated for any trouble that this plant may have given. An annual with gorgeous-coloured flowers that also demands sandy soil and a hot situation is the fleshy-leaved Portulaca grandiflora. Unlike the Martynia, however, the seeds may be sown outdoors where the plants are to flower, providing the sowing is postponed until the first week in May; if sown earlier and bad weather supervenes, the seedlings will often die off wholesale.

In Phacelia campanularia we have a dwarf annual with deep blue, bell-shaped flowers. It needs an open position to do well. If at all encroached upon by other stronger-growing plants, it becomes weak and presents a most dejected appearance; but if sown thinly and the seedlings are early thinned so that each one has room to develop its natural character, there are few annuals that can claim to possess greater charm. There are many other annuals that are mostly neglected, but which might well find a place in those gardens where little-known or out-of-the-way plants are appreciated, such, for instance, as Cacalia coccinea, Calandrinia grandiflora, Erysimum perowskianum, Eutoca viscida, Gilia dichotoma, Layia elegans and Leptosyne Stillmanii; but lack of space forbids detailed mention of these. The subject of these lesser-known annuals is, however, one that ought not to be lost sight of at this season, when seeds are being ordered for subsequent sowing. If room can be found for only a few of those mentioned above, they will give additional interest to the garden during the summer and autumn months.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 16. — Royal Horticultural Society's Examination for Employés in Public Parks and Gardens.

January 17. — Royal Horticultural Society's Meeting and Exhibition, Vincent Square, Westminster. Lecture at 3 p.m. on "Weeds and Weed Seedlings," by Mr. H. C. Long.

January 19.—Gardeners' Royal Benevolent Institution's Annual Meeting at Simpson's Restaurant, Strand, W.C., at 2.45 p.m.

The National Vegetable Society. At a committee meeting held on Tuesday, the 3rd inst., the secretary announced that offers of valuable prizes had been received from a number of the leading seed firms in the country, and that there was every prospect of an excellent exhibition being assured on August 30 next. The society will offer approximately the same number of prizes, and of similar value, to those offered at their show last year. A sub-committee was appointed to draw up the schedule, and it is hoped that this will be ready for distribution in the course of a week or two.

The National Sweet Pea Society.—At a committee meeting held on Friday, the 6th inst., it was unanimously decided to call an extraordinary general meeting of the members on Wednesday, the 18th inst., at the Hotel Windsor, Victoria Street, Westminster, at 2.30 p.m. This meeting is to be called for the purpose of further discussing the instruction passed at the last general meeting—that no member should act on the floral committee as an amateur who is in any way connected with the selling of Sweet Peas. Notices of the meeting, together with full particulars of the business to be transacted, is being sent to each member in accordance with the rules.

Royal Horticultural Society's Garden Club Journal.—No. 3 of this journal, which has just been published, contains a quantity of information that should prove of considerable interest not only to those who are past or present students at the society's gardens, but also to all who are interested in horticulture. One of the most interesting articles is by Mr. Harry J. Veitch, V.M.H., who gives some vivid details of the International Horticultural Exhibition of 1866, comparing the plants shown then with those which may reasonably be expected to find prominent positions at the International Exhibition next year. The Wisley flora is fully described and tabulated by Messrs. F. J. Chittenden, A. Simmonds and W. D. Cartwright, and Mr. H. Spooner offers some useful suggestions for the formation of a horticultural museum. The secretary of the club is Mr. R. J. Wallis, Cudworth, Newdigate, Surrey. All past and present Royal Horticultural Society students are eligible as members.

Royal Caledonian Horticultural Society.—The notice of the annual general meeting of this society suggests the re-election of Mr. Stewart Clark of Dundas as president, and that Mr. W. Younger of Ravenswood, Melrose, be appointed a vice-president in the room of Colonel Stewart Mackenzie, retiring by rotation; and Messrs. James Whytock, W. H. Massie and G. P. Berry be elected councillors in place of Messrs. T. Hay, J. Phillips and R. Brown, who retire by rotation. An abstract of the accounts of the society for the year ending November 30, 1910, is also annexed to the notice, and shows the society to be in a more favourable position than at the end of the previous financial year. The balance-sheet shows a total income of £1,201 8s. 3d., and an expenditure of £1,123 6s., the excess of income being £78 2s. 3d. This is a much more satisfactory result than in the previous year, and the total balance on income account is £243 3s. 1d. against £165 11s. 4d. The capital account also shows an improved balance, this being now £571 4s. against £560 14s. The "reconcilement of balances" shows a total increase in the balance to the credit of the society of £88 1s. 9d., after provision for the depreciation of tables, &c. The accounts of the Neill Prize Fund are also appended. All the accounts have been duly audited, and the only unsatisfactory feature appears to be that the capital of the Neill Prize Fund is not invested in a trust investment, this being pointed out by the auditor.

Southampton Royal Horticultural Society.—From the annual report and statement of accounts just issued, we gather that this society continues to hold a strong position in the horticultural world. The shows held in the past year, particularly the Rose and the autumn shows, have been remarkable for the excellence of their competitive classes. Unfortunately, however, the attendance of the public at all the shows has been somewhat disappointing, and in consequence the council has been compelled, for the first time for some years, to carry forward a few liabilities to the present year.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Squirrels and fruit. — With reference to the query on page 640, it may be taken for a fact that these animals will eat fruit. I have had a deal of trouble with them when Strawberries were ripening. To protect the berries from birds I used to thoroughly net, yet each day I found blackbirds in the nets. Time after time I went over the nets and tied up all the broken places I could find, yet each day the birds were in, and each day I found a fresh hole or two in the nets. Observing that the birds always got in during meal-times, I laid in wait one dinner-hour, and when all was still I observed a squirrel come tumbling down from a tall Fir and make its way to the nets. In a moment his sharp teeth had made a gap, and at the ripening berries he went.—T. A. W.

—— In answer to your question as to squirrels eating Apples and Pears, I can say that they have quite ruined the fruit of a row of cordon Pears, and have been frequently seen carrying off and eating the best fruits. Moreover, a squirrel can gallop some distance holding a large Pear in its paws and stopping to eat at intervals. Squirrels also make in the rows little heaps of ripe Strawberries, which they have taken off, bitten and even sucked. They also collect Peas, pods and all, in little heaps, having previously taken them from the sticked rows. We have been obliged, though regretfully, to lessen the numbers of the squirrels here, as we could not keep a Pear untouched (except cooking Pears), the squirrels running up trees against the house wall, 20 feet to 30 feet high, after Pears.—L. C. R. NORRIS-ELYE, *Utterby Manor, Louth, Lincs.*

—— In reply to an enquiry in your "Correspondence" columns of a recent number, I can report having had this past season repeated ocular proof of damage to, and carrying off of, Apples, Pears and unripe Plums by squirrels. They stripped all the Pears and Plums from a wall adjoining our shrubbery, and took all but two of my Williams' Pears, and even though I netted the two remnants, the bags bore marks of an attack. I have seen a squirrel run along the top of a wall with an Apple in its mouth. The squirrel was not of the usual foxy red colour, but a good deal of grey made it look dingy red grey. I put this raid down to scarcity of Nuts and Walnuts. After the fruit was gathered it fed on red Horse Chestnut fruit and on Service Tree berries.—JAMES C. ROSS. *Wadworth Hall, Doncaster.*

Pernetiana Roses.—I noticed Mr. W. Easlea's letter in a recent issue of your paper, and most fully endorse his opinion with regard to this new race of Roses, namely, Pernetiana. I do not think any Rose grower or lover of the same can but say they are a great acquisition in regard to their coloration, form and strength of growth. The first quantity most certainly stands well above the majority of English medal Roses which have been brought out of recent years; the second stands well in with the same; and the last, if I may say so, above. Notice the growth of Lyon Rose in one year from transplanting. It makes clean and strong wood, rods often 16 inches to 18 inches in length. The foliage when in full leaf I consider most beautiful, fully qualifying the exquisite colours of the bloom. The blending of tints of the same must be seen to be appreciated (being rather transient I shade them before they have even burst the calyx). I am, as many others must be, looking forward to this year, when we shall see Rayon d'Or and Viscountess Enfield, both from description quite unique, the latter being a beautiful blend of colour after Lyon Rose, the former at last a true orange. Surely the National Society of this country in this speciality of horticulture should consider the question of some recognition direct to this firm, which has, and is, producing such splendid specimens.—CHARLES WILLIAM CROSBY.

Winter flowers in the open garden.—It has been interesting to collect the flowers from shrubs and herbaceous plants in the open on December 31, 1910, and January 1, 1911. The garden is nine miles north of Oxford. The season has been wet and uncommonly mild. The following is a list of twenty-five shrubs and thirty other plants that are in flower: Shrubs in bloom—Chimonanthus fragrans, Pyrus japonica, Jasminum nudiflorum, Viburnum Tinus, Osmanthus ilicifolius, Garrya elliptica, Berberis vulgaris, B. Darwinii, Lonicera fragrantissima, L. japonica, Arbutus Unedo, Hamamelis arborea, Buxus sempervirens, Ruscus aculeatus, Ulex vulgaris, also a dwarf variety; Roses—China, Hybrid Tea and Polyantha Aennchen Müller; Ivy, Veronica (two varieties), Daphne Laureola, Erica carnea and Pieris floribunda. Hardy plants—Iris stylosa, Schizostylis coccinea, Cyclamen Coum, garden Primroses, Bunch Primroses, Aubrietia, double Arabis, Wallflowers (red and yellow), Alyssum saxatile, Omphalodes verna, Violas (white), Pansy (purple), Violets, Wood Violets, double Daisies, Field Daisies, Camomile Daisy, Feverfew, Helleborus niger, Eranthis hyemalis, seedling hybrid Pinks, Anemone coronaria, Hesperis matronalis, Vinca major, hybrid Pentstemons, Geum coccineum, Chickweed, Helianthemum vulgare variety, and dwarf wild Cinquefoil. Flowers in bud showing colour—Berberis nepalense, Azara microphylla, Anemone triloba, Laurus nobilis, Hellebores (purple and spotted) and Galanthus. — LADY EVELYN MASON, *Eynsham Hall, Witney, Oxon.*

The Gardeners' Royal Benevolent Institution.—In the review of "Horticulture in 1910," which formed the leader in a recent number of THE GARDEN, mention is made of that most deserving institution the Gardeners' Royal Benevolent, which, with increased funds, could do far more towards the unfortunate ones who have fallen on evil days. The need of this is emphasised by the voting paper for the forthcoming election now lying before me, from which I

learn that there are no fewer than seventy-three approved candidates for the twenty vacancies, so that it is evident there must be on January 19 many sad and disappointed ones. Furthermore, the committee earnestly appeal to all lovers of gardening for increased funds in order to carry on the good work. On this point, speaking both as a life member and an annual subscriber, I venture to say a few words. I have tried hard for years to induce gardeners to join this most desirable institution, in some cases with success, but by no means invariably so. In advocating the claims of the institution, the retort is frequently made that it is quite possible to be a subscriber for years, and then, owing to lack of influence at the election, to be beaten by one who has never contributed a penny to the fund, but who happens to have weighty supporters. In answer to this I have endeavoured to point out that it is really a benevolent institution and not a benefit society, otherwise the subscription would be a much heavier one. This is by some accepted, but in the majority of cases the resolution is formed of paying into something in which there is a sure return for one's money. Another point which has often struck me is that, considering the number of wealthy people who are much interested in their gardens, and, in fact, find their main pleasure therein, the number of legacies left to the institution is remarkably small. With regard to the fact that a subscriber of fifteen to eighteen years, and I believe in some cases longer, should fail at election, it must be borne in mind that it is conducted on what may be termed the handicap principle, namely, each subscriber or life member is allowed a hundred votes for every guinea subscribed.—H. P.

The National Sweet Pea Society's floral committee.—I have been taking keen interest in this society and its recent attempts to reform the floral committee. By adopting Mr. W. P. Wright's proposals it is admitting in some way that the committee is not what it ought to be, and may I add that its findings, especially in awards of new Sweet Peas, call for serious comment. When such Sweet Peas as St. George, George Stark and I might mention three of the five in their 1910 awards, will not stand the test of merit for more than one year, what is the public, who have been deceived in them, to think? What confidence can the exhibitor place in them after paying high prices for poor, second-rate varieties? I know some will say that they marked a slight advance at the time; of course, they mean in one direction only, in other ways they could not possibly come up to the ordinary standard, and for this reason I think they should not have received the highest award. I see one of your correspondents would not favour a scale of points or a code being used in making these awards; but I think such a system is absolutely necessary. If all those excellent Sweet Pea experts who support the society were to come to a decision on the different points where the merits of a Sweet Pea rest, then I think it should be an easy matter to get from two to half-a-dozen disinterested persons to go and award points as per instructions given. It would be both interesting and helpful to all who send new varieties for trial to know in what direction any variety succeeded or failed. Some arrangement of this sort would clear all traders and interested persons of suspicion, which at present hangs as a heavy cloud over the society. This is made manifest in the resolution adopted: "That no amateur having any interest in the sale of Sweet Peas be allowed to act on the floral committee as an amateur." There is a great band of Sweet Pea lovers eagerly looking for something to restore their confidence. Up to now it has been in vain.—A. A. ELLIOTT, 15, *Kirkgate, Ripon.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PREPARING GROUND FOR PLANTING.—The preparation of ground which is not occupied by spring-flowering plants should be proceeded with whenever the conditions are suitable. The condition of the soil and the kind of plants which are to occupy it during the coming season must have some bearing on the nature of the ingredients it is intended to incorporate in the soil when digging. Heavy, retentive ground will be much improved by adding a quantity of burnt garden refuse, the manure from an old spent Mushroom-bed or well-rotted leaf-mould.

Roads and Paths.—There is nothing which more detracts from the general appearance of the pleasure grounds than badly kept roads and paths. The present is a suitable time to overhaul these and remedy any defects that may be found. The making of new roads or paths is often a very expensive item; but if a little is done every year the strain on the garden resources, both financially and otherwise, will be more easily met. In any case, the paths which are in the immediate vicinity of the dwelling must be made so that water will quickly pass away after heavy rains.

Bedding Plants.—Attention must be given now to the propagating of various kinds of bedding plants, and the stock of such kinds as Geraniums, Iresine, Coleus, Alternanthera, Ageratum and Heliotrope, from which it is desired to obtain cuttings, should be brought into heat to promote suitable growth for this purpose. The whole of the stock of bedding plants must be occasionally overhauled and all bad leaves removed, or a good many of the plants may be lost through damping. The watering and ventilating of plants in heated pits will require very careful attention.

PLANTS UNDER GLASS.

Begonia Gloire de Lorraine.—As these pass out of flower, cut off all the old flowering sprays and place them in a house having a minimum temperature of 50°. Keep them here for two or three weeks to rest and apply water to the roots sparingly. After this treatment they will throw cuttings more readily, when they ought to be cut right down and given more heat and moisture.

The Greenhouse.—There is little difficulty nowadays in keeping the greenhouse and conservatory furnished with flowering plants the whole year round. Now that the Chrysanthemum season is nearly finished, the forcing of such plants as Lilacs, the Ghent and mollis Azaleas, Rhododendrons, Wistarias, Deutzias, Kalmias, Spiræas and Lilies will be necessary to furnish flowers for decorative work. Fruit-houses which have just been started are excellent places in which to stand batches of flowering shrubs. They can be moved from the fruit-houses to warmer quarters, if necessary, to hasten them into flower; but they will force all the better if placed in a moderately warm house for a week or two at first. Batches of Tulips, Hyacinths and Narcissi should be placed in the forcing-pit at regular intervals.

Roses in Pots.—These are so much appreciated and are so useful for indoor decoration that a good batch should always be grown for this purpose. To keep up a constant supply of blooms, place a few plants in a light, moderately warm house at intervals of a fortnight. Grow the plants as near to the glass as possible to promote sturdy growth.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT GARDEN.

PRUNING.—The pruning of all fruit trees and bushes should now be pushed forward, especially where they are planted throughout or adjacent to the vegetable quarters, as it is better to have all pruning done before commencing digging or trenching operations. Gooseberries should have the branches well thinned out, so as to ensure a free circulation of light and air, removing also all growths running crosswise. There is some difference of opinion as to the best method of pruning Gooseberries. Many good cultivators adopt the short spur system, others employ a medium course, while some advocate leaving the young, vigorous and well-placed shoots unpruned. The latter plan I have found to give very good results. Red and White Currants do best when spurred well back, leaving the leading shoots from 6 inches to 8 inches long for extension. Remove some of the old wood from the Black Currant bushes and encourage the production of young and vigorous shoots from near the base, leaving those unpruned. If cuttings of any of these are required for increasing the stock, select well-ripened and straight shoots, which should be tied in bundles and labelled. They can then be heeled in until such time as they can be properly prepared for planting. Old plantations of Raspberries that were thinned in the autumn will only require to have the canes trained to the wires or other supports. When the pruning has been completed, collect all the shoots and remove them to the fire-heap. It is also good practice to remove the loose surface soil as well and place it on the top of the fire to be charred.

Manuring.—When the ground is in a frozen condition, the carting and wheeling of manure should be proceeded with, as this is then much easier accomplished than when the paths are in a plastic condition.

FRUITS UNDER GLASS.

During unfavourable weather for outside work there is plenty requiring attention in the houses. The later vineries will still need cleaning. Every part of the wood and glass must be properly washed with soap and water, and all crevices where pests are likely to be lurking should be painted over with paraffin. The earliest house will now be making some progress, and disbudding should be attended to as soon as necessary. The temperature may not be much increased yet, as any sudden change in the weather conditions outside would necessitate very heavy firing to keep up an equal temperature. The early Peach-house, if not already closed up, will now have to be started if an early crop of fruit is required; but with the introduction of numerous early maturing varieties it is not necessary to start so very early, and if fruits of the best quality are desired, it is not advisable to force them earlier. There need be no difficulty, however, about starting at this date if the trees have been forced early the previous season. They should be started very slowly at first, for while Peaches when growing freely can be subjected to a very high temperature without danger, they resent being unduly forced in the early stages. A steady night temperature of 45° to 50° is sufficient to begin with, allowing it to rise 5° during the day and admitting air very cautiously on fine, sunny days. The atmosphere must be kept slightly moist, syringing the trees on fine days with tepid water; this, however, must also be practised with caution. When the blossoms are about to expand, the temperature may be raised another 5°.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

THE SILVER-LEAF DISEASE OF FRUIT AND OTHER TREES.

SILVER-LEAF is a disease known to most gardeners. It occurs in many trees, but notably in stone fruits such as Peaches and Plums. The disease is becoming more and more prevalent, and unless fruit-growers take immediate action and apply drastic measures to prevent its further spread, silver-leaf is likely to become a really serious trouble in the near future. It is hardly necessary to describe it. Its chief characteristic, as the name indicates, is a whitish or silvery appearance of the foliage. At first the disease has little or no effect upon growth or fruitfulness, but after a few years the branch or branches affected die, while the silvering of the foliage extends to other parts of the tree, until in time the tree is killed outright.

For a long time the cause of silver-leaf was unknown. Microscopic examination of the foliage could discover no trace of any fungus, and its origin, therefore, remained obscure until in 1902 Professor Percival demonstrated by inoculation experiments that it was really due to the attack of a fairly common fungus known to science as Stereum purpureum. This particular fungus fructifies, as a rule, on the fallen trunks of trees, especially Poplars, according to the observations of Cooke. An important point in its life-history is this—that although it may grow luxuriantly in the living tissues of a plant, it will never "fruit" until the wood of the host is dead; that is to say, it will grow on from year to year in the tissues of the living branch; but once the branch dies, and not till then, does it direct its energies to the production of spores or fruits. It is this peculiarity, together with the fact that its thread-like body, or mycelium, is made up of inconceivably fine tubes, that the parasite in the living tree so long escaped detection by the working botanist.

When the silver-leaf disease brings about the death of the branch, tiny patches of fungoid growth may appear on the surface of the bark of the dead wood. This patch, which is the beginning of the "fruit," grows bigger and bigger, and gradually assumes a purplish colour, although it is occasionally white or pallid-looking. The fruit in its development grows out, or away, from the bark, and eventually assumes the form of a rather thick and leathery ear-like flap with wavy margins. Several arise together, one over the other, forming a stratified cluster. The upper side of each fruit is distinctly zoned and faintly velvety, while the under side is purplish in hue, smooth, and carries an enormous number of spores. To prevent the formation of these spores should be the primary care of all fruit-growers troubled with cases of silver-leaf. From experiments carried out at the Woburn Experimental Fruit Farm, it is clearly evident that a living branch affected with silver-leaf cannot transmit infection. The disease, so far as at present known, can only naturally spread by means of spores, and even then only through a wound in the bark. The importance, therefore, of preventing the fructification of the Purple Stereum in fruit plantations is sufficiently obvious. The only means of check within the control of the fruit-grower is to either prevent the occurrence of dead wood in all cases of silver-leaf or to promptly remove and *burn* all such wood immediately it ceases to be alive.

Once silver-leaf appears in the foliage of a bough, the whole branch should be cut off and the wound painted over with tar. There is little or no hope of the branch ever getting rid of the invading fungus, and no fungicides are of the slightest use in such a case, as the parasite is internal. The branch may live and bear fruit for a few years, after which it is sure to die; but in the interval time is given for the fungus to invade other branches. Better remove the diseased limb at once and burn it without delay, for this is the only means of checking its ravages. In the case of a tree badly attacked, it will be the wisest plan to take it up and burn it root and branch. On no account should any part of the diseased tree be cast on a rubbish heap. The Stereum in such cases will fructify, and so give rise to fresh infection.

D. HOUSTON, F.L.S.

Royal College of Science, Dublin.



THE NEW SWEET PEA ELFRIDA PEARSON. (*Much reduced.* *See page* 17.)

FRUIT NOTES.

BIRDS AND BUDS.—All gardeners are lovers of birds, and ready to do all that is within their power to preserve those that are useful and beautiful; but when it comes to protecting the handsome bullfinch, the fruit-grower thinks that he is being asked to do something beyond what should be demanded from the ordinary human being. Personally I am of the opinion that bullfinches should be shot on sight; but I fully comprehend that in making such a suggestion I am running the risk of bringing down upon my head the wrath of many fellow-readers of THE GARDEN. There are, of course, other birds against which the buds must be protected, and as in the majority of instances netting is quite out of the question, recourse has to be had to frequent dustings with lime. Inexperienced cultivators appear to think that if they dust once, coating thoroughly every portion of the tree, nothing more will be necessary; but this is an error, since the stuff is quickly washed off, and thus its value goes. To be effectual it must be followed up, always making the application when the shoots are damp, as the dust will then adhere more readily.

FEEDING OLD TREES.—Although aged specimens do not yield the quality of fruit which we expect to secure from young trees that are in full vigour, they are undoubtedly valuable, for the simple reason that they invariably carry a heavy crop when the youngsters have scarcely anything on them. For this reason it is not wise to head them back and graft them or grub them entirely, as is so commonly advised; rather should they have attention in the thinning out of the growths with which the heads are massed, and feeding with strong liquid manure at the roots. If these things are done, the profitable life of the tree will be considerably lengthened. If the soil above the roots is cultivated, it will suffice to repeatedly soak the ground with the strongest liquid manure that is at command; but when there is a grass covering it is preferable to bore holes about 3 feet deep and 3 feet asunder in all directions from within 2 feet of the bole to at least 2 feet beyond the spread of the branches. The holes should be given a diameter of 6 inches at the top. Fill these half-a-dozen times with strong stuff, and afterwards firmly with rich soil. In the following season the benefit which the trees have received will be very marked.

WALL TREES.—The important operations of nailing and tying in should be pressed forward with all speed, with a view to completion before the middle of next month. This sounds as though there is abundance of time to carry out the task, but such is not really so, as we are sure to have weather when anything in this direction will have to be wholly suspended, and in all instances the necessary details are tedious, and it never pays to rush them through. If the washing has not been finished, this also must have prompt attention, and when the whole of the work is done in the branches,

fork lightly over the surface and apply a good mulching of short manure, commencing within a few inches of the main stem and extending outwards to a distance that is about equal to two-thirds the spread of the longest shoots, and the plants will be well fed.

LATE PRUNING.—A rule which is regarded as of the utmost importance in many gardens is that the whole of the pruning in the fruit department, with the possible exception of Gooseberries, which are commonly left over owing to the ravages of birds among the buds, shall be completed before Christmas; but excellent as this may be in theory, it cannot always be carried out in practice. On the contrary, where there is not much labour it is only with the utmost difficulty that time can be found to finish it by the end of February. An endeavour should be made to press the work onwards with all speed now, so that a conclusion may be come to by the close of the month. At the same time it is preferable to defer it rather than cut during severe frosts, since there is always a danger of trouble arising while the wounds are fresh should hard frost find a way into the hearts of the growths. After the foundation of a tree has been properly formed it is desirable that it should be allowed to assume somewhat of its natural habit, but this is not possible with trained trees, which have to be cut according to the position they occupy.

FRUIT-GROWER.

THE FLOWER GARDEN.

SWEET PEA ELFRIDA PEARSON.

THIS is one of the beauties of last season, and it is safe to promise a popular future for it. It was raised and will be distributed by Messrs. J. R. Pearson and Sons, the famous Nottinghamshire fruit nurserymen, and it is hoped that the stock will be abundant enough to meet the demand. It is in the way of Mrs. Hardcastle Sykes, Princess Victoria and others, and the blooms possess all the refinement of the first-named, with greater size and richer colour.

Essex. A. B.

THE EARLY FLOWERING CHRYSANTHEMUM IN SCOTLAND.

DURING the past twelve or fifteen years a vast improvement has taken place in the culture of the border Chrysanthemum, which has become exceedingly popular both for making a display in the flower garden and for supplying material for cutting in the autumn. No doubt the many fine varieties which have been produced in recent years, and their comparative hardiness, coupled with a better knowledge of their cultural requirements, have done much to popularise them. They are by no means difficult plants to grow, succeeding fairly well even under indifferent circumstances; but to have them at their best one or two details in their culture require attention. Young plants are always more satisfactory than old ones, or even old plants divided up. Young plants are those that have been propagated from cuttings. To do this a few plants should be lifted before severe frosts set in, and either potted or boxed. These should be kept in a cold frame during the winter, protecting them from severe frosts. Early in the year young growths will spring away from the roots. These when about 3 inches long should be cut off, trimmed in the usual way, and inserted in pots of light, sandy soil. Place the pots in a close frame or in a cool greenhouse, and shade from bright sunshine. In the course of four or five weeks the cuttings will be rooted, and should be gradually exposed to light and air. In about another fortnight or so it will be necessary to give the young plants more room. Boxes will be found useful at this stage, using a compost of two parts loam, one part leaf-mould and one part sand. Remove the plants carefully from the pots, breaking as few roots as possible, and plant them in the boxes, allowing 2 inches between the plants. Label each variety as the work proceeds, so as to avoid confusion later on. Place the boxes in a frame, and keep close and shaded for a day or two till root action has recommenced, after which the hardier the plants are grown the better. Early in April they will be ready for another shift. At this stage some recommend potting them; we, however, prefer planting them out in frames, which we find quite satisfactory and much less trouble. Growth will now be rapid, and air should be freely given, removing the sashes entirely towards the end of the month in favourable weather. About the middle of May they will be ready for planting out where they are intended to bloom. A nice open spot should be chosen where they will get a maximum of sunshine, and also shelter from rough winds. The ground should be thoroughly cultivated, but must not be made too rich. Add a little well-decayed manure and a sprinkling of soot and wood-ashes a week or two before planting. Tread the soil hard, so as to induce a firm and sturdy growth. If space can be spared, allow 3 feet between the plants, which will permit of easy access to gather the blooms. We have grown them much closer than this, but they are all the better for the extra room if it can be spared. A stout Bamboo cane should be placed to each plant, to which the main shoot should be tied, looping the side shoots to it also to avoid breaking.

We never pinch our plants, but allow them to break naturally, and most varieties make nice bushy specimens. In some we find it helpful to thin out a few of the weaker shoots. Attention to tying the plants when necessary and hoeing frequently among them to keep the soil sweet and free from weeds comprise the summer work. As soon as the flower-buds are set, a sprinkling of some artificial manure will be of benefit. This should be hoed in, and if dry weather prevails a good soaking with water will greatly help. Early in October some provision should be made to give shelter to the plants in case of frost. Very often there may be two or three nights at most, but sufficient to destroy the crop of bloom if unprotected; whereas a light covering may be the means of extending the period of beauty very considerably. There is now a wide choice of varieties, perhaps too wide, as so many sorts become bewildering, especially to beginners. The following list will be found to contain the names of tried and useful varieties: Whites—Market White, Mytchett White, Caledonia, Lady Mary Hope, Champ d'Neige, Roi des Blancs and White Masse. Yellows—Horace Martin, Elstob Yellow, Polly, Champ d'Or and Maggie. Crimsons—Ernest Baltet, Goacher's Crimson and Roi des Precoces. Orange and bronze—Nina Blick, Orange, Rosie and Crimson Marie Massé. Pinks—Mytchett Pink and Lillie. Creams—Ralph Curtis and Ethel. Other good varieties are Robbie Burns, rosy cerise; Mrs. Baird, peach; G. Bowness, crushed strawberry; and Improved Massé, lilac. Pompons capital for bedding are Craig Millar, yellow; White Pet; Piercy's Seedling, orange; and Early Blush, lilac.

Bridge of Earn, N.B. SCOTIA.



OTHONNOPSIS CHERIIFOLIA IN A SUSSEX ROCK GARDEN.

AN INTERESTING ROCK PLANT.

(OTHONNOPSIS CHERIIFOLIA.)

THIS handsome North African plant is a very suitable subject for large rockeries, stony banks, or the summit of a retaining wall, over the edges of which it tumbles and hangs in large masses. It is also a capital seaside plant, growing well on chalk cliffs and sandy places. The distinct shape and glaucous blue colour of its foliage form a good setting for the golden yellow, Marigold-like flowers produced in May and June. Planted in well-drained positions it rarely suffers from frost in this locality, though it would probably need some shelter north of the Thames. It is very easily propagated. The illustration shows an effective grouping of this plant against a sandstone rock placed to imitate the natural outcrop so common in some parts of this county. J. COMBER

Nymans Gardens, Handcross, Sussex.

THE GREENHOUSE

THREE GOOD CYPRIPEDIUMS.

THE type of the popular Cypripedium insigne first flowered in 1820 at the Liverpool Botanic Gardens, and since that date many distinct forms have been introduced, some being remarkable for their size, others for well-defined purple spots on the dorsal sepal, which vary in arrangement and brilliancy, while another section is characterised by pale yellow colouring and only a few minute spots. The largest flower shown in the illustration is C. insigne Harefield Hall, which is the finest of all the spotted insignes. The bold dorsal sepal is a yellowish brown, with a wide margin of pure white and a tinge of green near the base. There are several bright purple spots on the upper half, which extend into the white area,



THREE GOOD VARIETIES OF CYPRIPEDIUM INSIGNE.

C. Sanderæ. *C. Harefield Hall.* *C. Chantinii.*

where they are very conspicuous, while those on the lower portion are not so well defined. The pouch and petals are yellowish green, richly suffused with brown.

On the right of the picture is C. insigne Chantinii, which differs from the preceding in not being so large, but has more spots of a clear violet purple. The remaining one is C. i. Sanderæ, the best of all the yellow varieties, and now, happily, fairly plentiful. It is a pleasing primrose yellow, with only a few pin-like brown dots on the dorsal sepal and a pure white margin at the apex. The three Cypripediums quoted are of easy culture and extremely floriferous, while as fog-resisters they have no equal, which is worth consideration by those who reside near large manufacturing towns. Moreover, the flowers last many weeks in the dull winter season. Those mentioned by no means exhaust the various forms of C. insigne, for there are sufficient in commerce to suit the most fastidious taste.

SENTINEL.

THE KITCHEN GARDEN

VEGETABLES DURING 1910.

(*Continued from page 8.*)

FRENCH BEANS, both dwarf and climbing, did fairly well. Canadian Wonder (dwarf) and Princess of Wales (climbing) are each excellent. The improved forms of Runner Beans have been good. Scarlet Emperor, Prizewinner and White Emperor, the last-named being distributed under the name of New White Mammoth this season, are quite the best for any purpose.

Beetroot.—This crop proved to be exceptionally good, both in the long and globe-shaped varieties. I have seen nothing very new, the old standard varieties still holding their own.

Broccoli.—All kinds of these made good growth, as they naturally would during such a wet season; but in many parts of the country it will be necessary to afford them some protection should severe weather be in store for them. At the time of writing (Christmas Eve) we are cutting splendid heads of Superb Early White and Winter Mammoth, while other midwinter varieties, such as Christmas White, Snow's Winter White and Perfection, look equally promising. Leamington, Late Queen and Model can each be relied upon as hardy and good standard varieties for later use.

Borecole or Kale.—These, too, are excellent, and unless very severe weather sets in there will be abundance of good material through the winter and spring.

Brussels Sprouts.—These are yielding abundance of good Sprouts, Dwarf Gem being quite the best that has come under my notice. It is wonderfully true, and by making successional sowings it is equally good during early autumn, winter and spring.

Cabbages.—These also have been particularly good all through the season. With such a large range of varieties now to select from, there is little difficulty in keeping up a regular supply of this popular vegetable. My favourite sorts are Ellam's Early, Flower of Spring, Winningstadt, Rosette Colewort and Hardy Green; and among Savoys Perfection, Dwarf Green Curled and late Drumhead are especially good.

Cauliflowers.—One of our most valuable kitchen garden crops and, to the exhibitor, indispensable. For early use Early Forcing, Magnum Bonum and the old Walcheren are hard to beat, and for continuous supplies Early and Autumn Giant are each very fine, and by making sowings at intervals good heads may be cut from July to the end of November.

Carrots.—These have not generally been first-class, though I am bound to admit the dish shown by that splendid vegetable-grower, Mr. J. Gibson, at the National Vegetable Society's show in his winning collection of vegetables was the most perfect I have yet seen. Colour, shape and finish were all that one could possibly hope for, the variety being New Intermediate, quite the finest of all varieties for general use. For early sowings Favourite and Model are good, reliable sorts.

Celery.—Though this has made remarkable growth, the crops generally have been more free from the ravages of the Celery fly than usual. The specimens exhibited generally have not been of that high order of merit which one would wish to see. Giant White, Aldenham Pink and Standard-Bearer are each good in their various sections.

Leeks.—Though in some instances these have been shown remarkably fine and the general crops are good, I am of opinion that I have seen the quality generally much superior in former years. International and The Lyon are, in my opinion, two of the best and most reliable varieties on the market when good stocks are obtained.

Onions.—These have not been seen, owing to the sunless weather, in such a high state of perfection as is usual. In nearly all cases lack of high finish has been noticeable. The best-ripened and most highly finished specimens I have seen during the past season were those exhibited by Mr. G. Ellwood at the Royal Horticultural Society's show. Though much larger bulbs have been staged, these were, in my opinion, quite the best quality I have seen. The best type of Ailsa Craig is unquestionably still superior for producing specimens of heavy weight. Maincrop and James's Long Keeping are each excellent for sowing outside, and their keeping qualities are all one could wish for.

Parsnips.—Except in a very few instances this crop has been most unsatisfactory, owing to the continuous wet. The specimens have been badly rusted, and especially so where the land is in too rich a condition. Tender and True, a hollow-crown variety of much merit, is fine for any purpose, and Evesham, one of the stump-rooted varieties, is unquestionably of superior quality to many others.

Tomatoes.—Except on walls and in the most favoured parts of the country these have been a miserable failure out of doors. Under glass, however, they have seldom been seen better. Looking back a few years, it is indeed marvellous not only to note the great demand that now exists for this vegetable compared with, say, thirty years since, but the large number of improved varieties, both for inside and outside culture, is truly remarkable. Though there are many shades of colour, from deep yellow to bright red, the latter seem to find most favour. In my opinion, one or two of the yellow varieties are distinctly superior in flavour, namely, Sunbeam and Golden Perfection. Winter Beauty and Sunrise are quite two of the best all-round varieties, and for winter work are

indispensable, and are alike suited to outside culture. Perfection and Polegate are two of the finest exhibition varieties.

Turnips.—Little or no excuse could be offered during the past season if Turnips of the highest quality were not to be had in a successional supply. Little of the Turnip flea was to be seen, and the dull, damp weather was conducive to quick growth, which means quality in the highest state of perfection. For frame culture White Gem and Long Forcing are, I think, quite the best. Early Milan, for south borders, must be used in quite a young state. Snowball and Jersey Lily are excellent white varieties. For a hot summer Red Globe is invaluable, standing drought better than any other variety I am acquainted with. Prizetaker, a green-topped variety, always does well for winter use, is perfectly hardy and the quality very fine. Golden Ball is one of the best yellow-fleshed varieties, and this sort never did so well with us before as this past season.

Vegetable Marrows.—These, too, naturally were in many cases seriously affected by the cold, dull summer, though in some cases they made some amends by giving a supply during very late autumn. We have for many years here started our principal plants in portable frames on a mild hot-bed early in the year, commencing to cut fruit during the end of April or beginning of May. We find this a great gain, as by removing the frames entirely by the end of May or the first week in June, and giving a good surface dressing, the plants will then be in full bearing, and continue to yield good crops until frosts destroy them. Moore's Cream, The Sutton Perfection and Pen-y-byd are all excellent varieties and of superior quality.

Lettuce.—Little difficulty has been found in keeping up a continuous supply of the highest quality of this popular salad. There are such a large number of varieties now in existence, enough, surely, to meet all tastes in this respect, both in the Cos and Cabbage varieties. It is extremely interesting as well as pleasing to see a good trial of the Cabbage varieties, the colours embracing as they do various shades of red, yellow and green, and the diversity in the shape of the plant and foliage is most marked. Golden Queen, All the Year Round, Stanstead Park, Staghorn and the old Hammersmith are quite the best for winter use, and each is desirable in this section.

Aldenham House Gardens. E. BECKETT.

RADISHES IN COLD FRAMES.

WHERE there is space available in cold frames the present is a good time to make a small sowing of Radishes for an early supply. A bed of good soil, such as is used for general potting purposes, should be made in the frame, a depth of 6 inches answering very well. If made moderately firm, and the seeds are scattered over the surface and lightly covered with sand, young plants will soon appear, when free ventilation and careful attention to watering will be necessary. Wood's Frame and French Breakfast are two good varieties for frames.

THE ROSE GARDEN.

CLIMBING ROSES WITH LARGE FLOWERS.

THERE is a tendency on the part of the Rose-loving public to become a little tired of the so-called rambler Roses. I have this season had the question frequently put to me, "Have you some fast-growing Roses that produce good quality blooms, not clusters like ramblers?" and I have been only too glad to be able to recommend such a fine Rose as Climbing Caroline Testout. That it will grow freely many will know from experience, being in this respect almost on a par with Climbing Devoniensis, but infinitely more useful, as it is so hardy. I only wish it possessed as sweet a fragrance as that of Pink Rover, for it is a far superior flower in every way. As a pillar Rose, Climbing Caroline Testout is a great success, and it would be splendid for a tall hedge if suitable supports were afforded. Unlike some climbing sports of dwarf Roses, there is nothing wanting in size; indeed, I have sometimes thought the blooms were even superior to the parent variety. Climbing Mrs. W. J. Grant is also a first-rate variety, but one must not expect too much of it in the way of growth, and it is also somewhat erratic. I have seen rows of it in some nurseries absolutely refusing to grow beyond the usual dwarf habit, and in others fine tall plants with growths 6 feet to 7 feet in length. This variety should not be cut back hard the first year. Leave the growths fully 5 feet in length: then the following season cut one or two of these older growths right down, which ensures new wood from the base. As a pillar or fence plant is the best form in which to grow it. Just make a screen with a few stout Bamboo canes, let them stand out of the ground 5 feet, and plant bushes of this Rose 3 feet apart In two years one may have a splendid hedge, and the earliness in which the buds are produced makes it invaluable to the florist or the gardener.

Ards Rambler is a real beauty with its very fragrant, large-flowered blooms, which are of a velvety orange crimson colour. Of less vigour, but a real good variety, is Sarah Bernhardt, its semi-double blooms being of the rich colouring of a bright Liberty, with just a resemblance in the velvety shading to Victor Hugo. This glorious Rose should be in every garden, and it makes an ideal standard. For a wall with a south or west aspect I must not forget Climbing Kaiserin Augusta Victoria. It is perhaps the best whitish climber we have that yields good-formed flowers, for however much we may admire Mme. Alfred Carrière in the mass, one can hardly pronounce its blooms to be of good form, whereas a cluster of five to seven blooms on one stem of Climbing Kaiserin Augusta Victoria would be difficult to surpass.

I must not take up space in describing any others, but would simply name a few that are worthy of being planted wherever opportunity offers: Bouquet d'Or, Ards Pillar, Climbing Captain Christy, Climbing Lady Ashtown, Climbing Niphetos on warm wall, Climbing Liberty, Mme. Berard, Mme. Charles Monnier, Mme. Leon Constantin, Reine Olga de Wurtemburg, François Crousse, Souvenir de Mme. Joseph Metral, Duchesse de Auerstœdt, Lady Waterlow, Zepherin Drouhin, Mrs. Stewart Clark, Johanna Sebus and Noella Nabonnand. P.



AN INTERESTING NORTH AMERICAN SHRUB: ARALIA SPINOSA.

TREES & SHRUBS

HERCULES' CLUB.

THIS formidable name has been given to a hardy North American shrub botanically known as Aralia spinosa. The name Hercules' Club is somewhat appropriate, from its stout, woody stems covered with sharply pointed spines. Under favourable conditions this Aralia will attain a height of 20 feet, and the spread of its branches, which are arranged in an umbrella-like head, would even exceed its height in measurement. The flowers are creamy white, borne in large, feathery panicles late in the autumn, when few other shrubs are seen in flower. For foliage alone this plant is well worth a place in any garden; in this respect it is like most other members of the Aralia family. Aralia spinosa, however, is probably the hardiest of the genus, and certainly much better suited to open-air treatment than its better-known relative A. Sieboldii, correctly known as Fatsia japonica, which is much inclined to turn yellow in cold weather. Aralia spinosa has the misfortune to bear two popular names, for in addition to Hercules' Club it is also known as the Angelica Tree. Although not very well known, it

is the oldest species in our gardens. A sheltered position suits it best, such as is shown in the illustration on page 19, where it is seen flowering in the Berberis Dell at Kew.

A NOTABLE WITCH HAZEL.

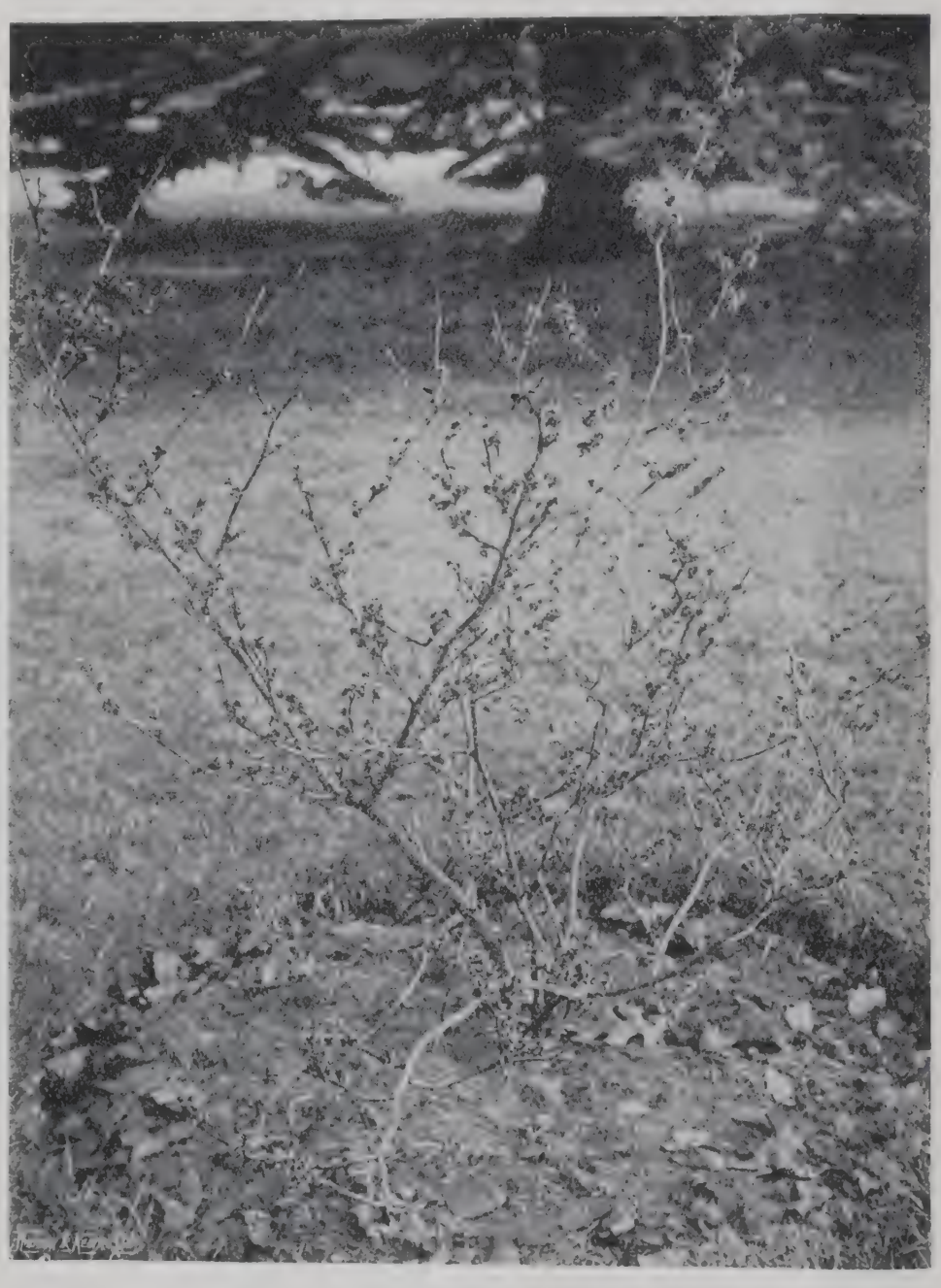
(HAMAMELIS MOLLIS.)

No collection of hardy shrubs is at all representative without the Witch Hazels, and of them Hamamelis mollis is certainly the most decorative. It is now flowering freely in some gardens, and its curious yellow flowers, with twisted petals, arranged upon leafless and dry-looking twigs, are sure to attract attention. Indeed, any plant having the courage to flower in the dead of winter naturally receives more than usual notice owing to its precocious nature. Witch Hazels have long been cultivated in our gardens, and probably the best known are H. japonica and H. virginiana. There is a variety of the former known as arborea. Hamamelis mollis, a native of China, is of more recent introduction than the others mentioned; resembles mostly the variety arborea when in flower, but is quite distinct from all others in its soft felt-like foliage. All of them seem to thrive quite well in ordinary garden soil, although preference is shown for that of a sandy nature, and a sunny position. There is one unfortunate mistake sometimes made in planting these shrubs, and that is in not choosing a suitable background to show off the flowers to the best advantage. The writer has seen cases where Hamamelis has been planted as a solitary specimen in the open on a lawn, where the flowers have not shown well owing to the lack of contrast. An ideal position is in front of some dark evergreen subjects.

AN UNCOMMON ASH.

(FRAXINUS DIMORPHA.)

THIS curious, small-leaved Ash is a native of Northern Africa, whence it was introduced rather more than thirty years ago. As it is found at a moderately high altitude, it can be grown satisfactorily in England, and may be said to compare favourably with Cedrus atlantica in the matter of hardiness. It was originally discovered by Sir J. D. Hooker in Southern Morocco in 1878, but has since been found in other places, including the Algerian mountains, at an altitude of 4,000 feet to 6,000 feet. It differs considerably in size, for in moist situations, such as the borders of streams or lakes, it forms a tree 40 feet high, while when growing in dry, exposed places it makes but a low bush. Other peculiarities are also noticeable regarding its manner of growth under various conditions, for when growing slowly in dry situations the branches are very short-jointed, stiff and sharp-pointed, somewhat approaching a thorny character. Under more genial conditions, however, this spiny character is not developed and growth is more free. The shoots are slightly four-angled and clothed with dark green leaves composed of seven or nine oval leaflets, which may be from half an inch to three-quarters of an inch long. It is sometimes met with grafted standard high on to stocks of common Ash, but is more satisfactory when growing on its own roots. A variety called dumosa is in cultivation. This may be distinguished by its low, dense habit and its thorn-like side shoots. When young, the shoots of both kinds have a purplish hue. D.



THE RARE WITCH HAZEL HAMAMELIS MOLLIS.

THE TOWN GARDEN.

CARNATIONS FROM SEED.—The border Carnation is among those good plants of the year that are easily raised from seeds, and not a few prefer to deal with them in this way because of the interest in raising all florists' flowers that are inclined to be sportive or variable. The Carnation in particular has this sportive tendency very fully developed, so much so, indeed, that the unexpected often happens, and good varieties are found occasionally even among the ordinary seedlings. Naturally the percentage of high-class flowers is not large, that is to say, not large when compared with the best named collections. For border decoration, however, and for cut-flower work the majority are well suited, and for these purposes should be largely cultivated by all amateurs and gardeners who must have an almost incessant supply of cut bloom. The weak point of the border Carnation when raised from layers each year is the briefness of its flowering season, while the strength of the seedling plant lies as much in the superabundance of the growth as in its remarkable profusion. In these directions, viewed entirely from the decorative standpoint, the seedling is immeasurably superior and worthy of every encouragement.

WHERE FAILURES CREEP IN.—There are ever present weak points that admit of failure; those little "ifs" so abundantly prolific *after* the event create a measure of disappointment where complete success might have been. It was always so, and, doubtless, so will ever remain. Procrastination, the thief of time in many a walk of life, is a daylight robber often enough to the gardening beginner, and the latter, himself working not a little in the darkness of inexperience, yields to the "putting off" temptation from day to day. "Delays are dangerous," and there is a fund of truth in the axiom so far as the raising of seedling Carnations is concerned.

WHEN TO BEGIN.—If the object in view is to get all that is possible from the plant at its flowering-time, eighteen months hence, a beginning should be made in January, or not later than mid-February, by sowing the seeds. To say that the seeds should be thinly sown, that fine, sandy soil should be used, that the pots be clean and well drained and given a greenhouse temperature of about 50°, would be to repeat the essential elementary details of culture that have been tendered hundreds of times before, but which are just as essential now. Indeed, they must not for one moment be overlooked. Of equal if not of even greater import than the early sowing of the seeds is to keep the seedlings going—growing, that is—after they are up. To allow the seedlings to come to a standstill for lack of more room is one of those dangerous delays already hinted at, and must be avoided at any cost.

THE ROYAL ROAD TO SUCCESS, indeed, in plant cultivation, and soft-wooded plants in particular, such as Carnations, is a steady growth from the first, and such opposites as check, standstill or going back are its greatest enemies. The steady, continued growth we have in mind is therefore vital to complete success, by which is meant young and sturdy plants for bedding out of 4-inch pots in May, which, yielding tufts of growth 15 inches across by October, will provide sheaves of blossoms in the most wholesale way in the following June. "Sheaves of blossoms" is no mere figure of speech; it is an absolute reality attainable by all who care to follow what is here laid down. It is the reward of early sowing and constant care.

HOW TO AVOID A CHECK.—A packet of choice Carnations may contain anything from fifty to one hundred seeds, depending on its quality and the price paid, and a good way to avoid an early check to the seedlings is to sow the seeds 1 inch apart in shallow pans. If this cannot be done, the seedlings must be pricked off quite early. If the weather is at all favourable free ventilation must be afforded the young plants when they are 1 inch or 2 inches high. S. N. N.

GARDENING FOR BEGINNERS.

INCREASING BEGONIA GLOIRE DE LORRAINE.

MANY beginners are under the impression that Begonia Gloire de Lorraine and other beautiful hybrids are of difficult cultivation; but, given proper conditions under glass, there is no reason whatever why plants of fine proportions should not be raised with comparative ease. Quite large plants may be grown in comparatively small pots, and this fact may be regarded as an excellent test of the cultural skill of the grower. I have seen plants some 3 feet or more in height, beautifully clothed with foliage and flowering in profusion, and all this attained in one year. Begonia Gloire de Lorraine and other hybrids will always be valued, because the plants come into flower at a period when, except for Chrysanthemums, there are few subjects available for conservatory embellishment.

Regarding the culture of Begonia Gloire de Lorraine, many growers have their own pet methods. Opinions, as well as systems, differ. There is an orthodox way of raising plants, and there are other methods, all more or less praiseworthy. Some of our most successful growers commence the work of propagation as early as October; but in such cases the plants are not increased by cuttings, as is more generally practised. Instead, the leaves of the plant are utilised, and very successfully, too. Thumb pots are filled with suitable compost, and leaves are inserted instead of stem-cuttings. As a rule, in October there is a plentiful supply of healthy leaves available, and a few removed from each plant in a collection could not, therefore, detract from the beauty of the plant as a whole. The leaves are removed intact, with the full length of leaf-stalk, and these are inserted singly in the small pots already named. It is not necessary to insert the leaf-stalk deeply; as a matter of fact, a shallow insertion is better, and the leaves may be supported, if necessary, by a small stake. The more popular, or orthodox, method of increasing these plants is that of inserting cuttings made from young growths that have developed subsequent to the flowering season. If placed in a rather moist and warm glass house, it will not be long before new shoots will be observed, and in normal conditions these will provide an ample supply of growths, from which cuttings may be made in a comparatively short period.



2.—BEGONIA GLOIRE DE LORRAINE IN ITS FIRST SEASON.

I have depicted in Fig. 1 first a growth from which a suitable cutting may be made; next, a cutting properly prepared and ready for insertion; next, a number of cuttings inserted around the edge of a 3-inch pot; and, lastly, an individual cutting inserted in a thumb pot. This should serve to illustrate the process to the beginner, and simplify the procedure for him. The shoots should be of recent development and detached 2 inches to 3 inches in length. To make a cutting, trim off the lower leaves and the stipules, and cut through the stem of the growth immediately below a joint; a careful observation of the illustration should make this quite clear. Cuttings may be inserted in shallow boxes, or around the edges of large pots if preferred, or three or four cuttings may be dealt with in a 3-inch pot, or, what is far better, individual cuttings in small pots. The advantage of the latter system is that the young plants may be potted on subsequently without damaging the roots.



1.—BEGONIA CUTTINGS THAT MAY BE INSERTED NOW.

The compost for propagation purposes is an important item. Generally speaking, loam and leaf-mould in equal parts, and a very liberal addition of coarse silver sand, all passed through a rather fine sieve, answers very well. More recently, however, many successful growers have substituted peat for loam, with very satisfactory results. A nice bottom-heat is desirable, and if this can be provided after the cuttings have been lightly watered in and allowed to drain, the success of the rooting process is almost assured. A propagating-frame on the greenhouse bench, boxes covered with sheets of glass, or bell-glasses may be utilised to promote root development. A temperature of about 65° answers very well. From now till March is a good time for inserting cuttings. The young plants are subsequently potted on as they need a shift, and finally into 5-inch or 6-inch pots where moderate plants such as those portrayed in Fig. 2 are desired. Where extra large plants are preferred, forward plants may be finally potted into 8-inch pots or those rather less in diameter, and this work is better done in the closing days of July or early August. A good compost for the final shift should consist of equal parts of fibrous peat and fibrous loam, half a part of good leaf-mould, and the free admixture of silver sand. Some growers add a small quantity of broken charcoal to the compost. A temperature of from 50° to 60° is suitable for flowering.

D. B. CRANE.

HOW TO GROW EARLY CARROTS IN FRAMES.

EARLY Carrots are always very much appreciated, and, as many roots can be grown in a very small space, they should be cultivated where there are the necessary appliances. Now, frame plants generally like a nice cosy corner to grow in, but Carrots do best if they are grown in an exposed position—that is, while the roots are forming. A hot-bed of leaves and stable litter, mixed, is the most suitable for these vegetables, as a strong heat would spoil them by unduly forcing the growth during its early stages.

In districts where tree leaves were numerous last autumn and were gathered into heaps, hot-beds made entirely of the leaves are the best of all. To make up a successful bed of leaves, the cultivator must have the latter slightly damped and shake them out well when placing them in position. If put down in solid flakes they will not heat at all, but remain cool. Build up the bed 5 feet high, and make it 18 inches wider every way than the frame which is to be placed on it. Then put on the frame, and in the latter a layer of sifted soil 10 inches deep. The weight of the frame and the soil will cause the bed to sink down to half its original height. Make the new soil moderately firm, then sow the seeds thinly broadcast, and cover them in the usual way. Only put on mats or straw if severe frosts prevail after the young plants are to be seen, and admit air judiciously when the

weather is favourable. If the seeds are sown thinly, it will not be necessary to pull out any young plants except when they are becoming fit to use. As the warmer weather comes, take off the glass lights during the daytime, and finally remove the frame. The exposure to the warmer winds will cause the plants to form larger roots. Sow seeds of the Early Horn varieties. SHAMROCK.

NURSERY NOTES

MESSRS. T. S. WARE'S BEGONIAS

IMAGINE a flat field some three acres in extent with a few standard fruit trees dotted about it and a broad, straight path running down the centre, and imagine this field carpeted with tuberous Begonias of every known colour shade and in double, single and intermediate types, and you get some idea of the seedling Begonias as grown at Messrs Ware's nursery at Bexley Heath. Although the head-quarters of the firm are at Feltham, the Bexley Heath branch has for some years been devoted to tuberous Begonias, and under the management of Mr. Pope considerable progress has there been made with these charming flowers. The whole of the plants that we saw growing in these three acres early in September were seedlings from seed sown under glass in January, the young plants being transferred to the open early in June.

Those who do not know the value of these plants for bedding, particularly where a brilliant display is needed in the autumn, ought to see them as grown at Bexley Heath. Sturdy, branching plants, with stems as thick as one's forefinger, and throwing their flowers well above the foliage, these newer types of the tuberous Begonia create colour pictures that may, if so desired, be of almost Oriental gorgeousness. There are, however, many quieter colour shades, and it would be difficult indeed to find anyone whose tastes could not be satisfied. In addition to the wide range of colours, there is exquisite form that commands attention. In the double flowers we get some that a novice might well be excused for mistaking for the best types of Camellia, while others have that conical centre so much admired in such Roses as Frau Karl Druschki. Then some of the double flowers have the edges of the petals delicately fringed, while others are plain, so that in this section alone we get considerable diversity of form.

Then what shall we say of the colours? Crimson, scarlet, yellow, white, orange, terra-cotta, blush pink, salmon, salmon pink and bronze all vie with each other for the place of honour. The scarlets were exceptionally good, reminding us forcibly of the vivid colouring of that king of bedding Pelargoniums, Paul Crampel. The yellows also called for special mention, the colour being a good, clean, rich canary yellow. In the plain singles we saw the same colours, and for bedding purposes many prefer these to the double-flowered types. Certainly their flowers are held more erect or rather higher above the foliage level, and the effect they create when massed is beautiful in the extreme. The fancy flowers, *i.e.*, those of two or more colours, specially appealed to us in this section, those composed of white and varying shades of pink possessing an air of refinement that is difficult to define.

In addition to the double and single flowered varieties there were two distinct types that come, as it were, midway between the two. These are the crested and frilled flowers, comparative newcomers, but beautiful enough in their way, and evidently appealing to many, judging by the large quantities grown. In the crested section we get single or semi-double flowers with a sort of frilled crest on the inner surface of the petals, while the frilled type are mostly true singles with the edges beautifully goffered. Although the range of colours in these sections is not yet quite so large as it is in the true doubles and singles, there are many beautiful shades available, the salmon, pink, scarlet, crimson, white, cream and yellow varieties being particularly beautiful.

Of named sorts Messrs. Ware have a very extensive stock, many of which have received awards of merit from the Royal Horticultural Society. In addition the firm has a wide range of the beautiful Cactus-flowered type, the pendulous growths of which render them particularly useful for greenhouse baskets. Lack of space will not allow of details being given regarding these, but anyone interested can obtain full information concerning them by writing to the firm at Feltham.

BEAUTIFUL BASKET FERNS.

AS decorative Ferns for suspended baskets the varietal forms of our common Polpody (Polypodium vulgare) cannot be excelled. I have in view as I write such a basket, made of galvanised wire, in which, some seven or eight years ago at least, a selection of half-a-dozen of the best varieties were installed; and while shortly after such installation the variously cut and crested fronds rose and formed a very pretty object, it has practically increased in beauty every year, since in course of time the creeping rootstocks have found their way to the surface on all sides, so that it is now a ball of diversified foliage. The basket itself is about 15 inches in diameter by 9 inches deep, and is suspended by stout copper wires to a hook in one of the joists of the fernery roof. It was lined with living moss to retain the soil, which consisted of leaf-mould or brown fibrous peat, loam and sand, the leaf-mould or peat largely predominating, and this has been mulched several times since with a handful or two of pure leaf-mould, thus imitating the natural conditions of the species. The varieties planted were P. v. grandiceps Forster, a heavily crested variety; P. v. bifido-multifidum, a narrow, small, crested form; P. v. pulcherrimum, a robust, thrice-divided one; P. v. glomeratum Mullins, of which no two fronds are alike, though all are more or less branched and tasselled; and a variety the writer found at Killarney, with long, slender side divisions, P. v. longipinnatum. All these have grown into one another, so that their fronds are intermixed; but as they have also penetrated the soil and worked their way through the moss laterally and downwards, they do not interfere with one another to any marked extent, and by their distinct and varied character add to the charm of the group. The only care necessary is to see that water is supplied from time to time sufficient to keep the ball moist; but in this particular connection P. vulgare is very obliging, since it is precisely one of those Ferns which will stand drought if such accidentally occurs, and the only trouble then is that the basket must be taken down and submerged for a little while until it is soaked. The fronds will then revive and little or no harm results, whereas with most Ferns recovery would be tardy or impossible. As the weight of the ball is considerable, strong suspending wires must be used. I have mentioned several varieties as occupying this particular basket; but where accommodation for several baskets is available, I would rather advise a single variety for each, and, apart from those named, there are the beautiful cambricum or Welsh Polypody varieties, peculiarly adapted for this purpose. P. v. cambricum, P. v. c. Barrowii, Hadwinii and Prestonii are four distinct forms of this section, all robust growers and distinguished by extra broad and leafy fronds, even more ornamental than those cited; while P. v. grandiceps Fox, cristatum, and grandiceps Parker are three other finely tasselled forms, and P. v. cornubiense, or elegantissimum, is distinct from all of them in its peculiarly finely cut frondage and eccentric behaviour as regards this cutting. Recurring to the establishment of a basket Fern of this species, it is well to mention that its creeping rootstocks object to being buried, and always seek the light, though the roots proper penetrate the soil; hence the fleshy rootstocks should be kept on the surface and only the root fibres buried. To facilitate the formation of lateral fronds, pieces of the rootstocks provided with root fibres and a frond or two may be inserted next the lining of moss all round in addition to those planted on the surface. This is easily effected through the meshes of the wires as the moss is put in position and soil added. Finally, I may add that the species and all the varieties are perfectly evergreen and hardy, and need no warmth in the winter. The fronds may appear wilted if a hard frost is experienced, but when the thaw comes they resume their verdure and are none the worse; so that baskets of this kind are admirably adapted for decorative purposes the winter through, the fronds only fading and dying when the new crop rises. For cold conservatories facing north, and thus getting little sun, I cannot too highly recommend basket Ferns of this kind, since flowers, or even some of the ornamental Asparaguses, are far less satisfactory, besides being useless for winter decoration.

CHAS. T. DRUERY, V.M.H., F.L.S.

PEACH TREES IN POTS IN GREENHOUSES.

PEACH trees may be grown in pots in greenhouses with much success if they are given ordinarily good treatment. During a part of the year the trees may be placed in the open air, and thus leave room in the greenhouse for other kinds of plants; and as this period embraces the autumn and the greater part of the winter, they cannot be condemned as plants that unduly occupy valuable space in the structure.

I would advise intending cultivators to purchase trees that are established in pots. Those specimens that have been trained for covering walls are not suitable, and cannot be properly manipulated except by expert cultivators of this luscious fruit. Young bush or pyramid shaped trees are the right ones to purchase, and if they are three or four years old and possess short-jointed shoots well studded with flower-buds, so much the better.

No repotting must be done at the present time; this work is best carried out early in the autumn. A good top-dressing of lumpy fibrous loam put on at once will prove very beneficial. The pots containing the trees must now be well protected from severe frosts. Usually the most severe frosts occur at this season, but they will not injure the buds nor the trees at all if the pots are well packed in leaves, straw, Fern or ashes. I prefer to pack leaves or ashes around the pots, and then cover the surface with short litter 1 foot deep. A very severe frost can thus be kept out. Watering will not be necessary, as the exposed pots will collect sufficient rain-water. Very little pruning is necessary, and none where the summer pinching of the shoots has been carefully attended to. The restricted rooting space prevents any gross growth of branches.

Place the trees in the house directly the buds commence to swell freely. This will be about the

middle of February. They must have a very light position with clear glass above them, and no climbing plants. Of course, the cultivator must pay attention to the requirements of the other occupants of the structure as well as to those of the Peach trees; and as I am advocating the growing of a few Peaches in pots as a kind of supplement to the general greenhouse stock, they must not be given special treatment detrimental to the other plants.

The general management of the trees will consist of watering, disbudding, syringing and feeding. The plants may be taken outside occasionally and given a thorough syringing. Watering must be very carefully done, but no feeding should be attempted before the young fruits are about the size of ordinary marbles; then weak doses of manure-water and artificials will prove very helpful. At the final thinning leave the fruits about 10 inches apart on the branches, and when the crop is gathered take the trees outside and thoroughly syringe them, also make sure that the roots never suffer through lack of water. The free ventilation of a greenhouse will suit the Peach trees. The following varieties may be selected: Royal George, Hale's Early, Crimson Galande, Rivers' Early York, Dymond and Waterloo. AVON.

NEW PLANTS.

CYCLAMEN MRS. A. BUCKSTON.—A very large, highly decorative variety of the Papilio race of these flowers, from which all the form of the original species has practically been obliterated. The mass of spreading, twisted, much fringed flowers is remarkable, and this overtopping the foliage at considerable height makes a very effective whole. The colour is pink. From the Rev. H. Buckston, Etwall, Derby.

Lælio-Cattleya Cranstounæ Westonbirt variety.—This is a charming variety of a most pleasing tone of colour. The perianth is clear sulphur yellow, shading to white, and the lip is cream and tinted with purple-crimson. The plant exhibited carried six flowers, borne in a strong inflorescence. It is a cross between Cattleya harrisoniana and Lælia tenebrosa Walton Grange. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire.

Odontioda Cooksoniæ.—A very handsome hybrid between Cochlioda noetzliana and Odontoglossum ardentissimum. The flowers are small, of bright orange scarlet, with over a dozen to the spike. It was shown by J. Gurney Fowler, Esq., Glebelands, South Woodford.

Each of the above received an award of merit from the Royal Horticultural Society on January 3.

THE EDITOR'S TABLE.

CYCLAMEN FROM NORFOLK.

Mr. T. Jannoch, the well-known grower of Lilies of the Valley, Dersingham, Norfolk, sends us some particularly beautiful flowers of up-to-date varieties of the Persian Cyclamen, the fimbriated forms being extra good. Mr. Jannoch writes: "I am sending you a few of my Cyclamen latifolium fimbriatum giganteum and a few salmoneum types of various shades. The above received an award of merit from the Royal Horticultural Society on October 29, 1907. Through careful crossing I have obtained a very fine strain of Cyclamen. The blooms sent are by no means flattered, as I have had much finer which I intended sending some weeks ago, but was prevented from doing so through over-pressure of business."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Carnation flowers (*A. G. W.*).—We have never heard that the pistil is removed from the Carnation with a view to add to the longevity of the flower when cut, though it may be done by exhibitors of the flower in summer-time, more particularly in those classes devoted to the so-called "dressed" flowers. At the present time, in the winter-flowering Carnations the pistiliferous organ is rarely seen when the flower is fully expanded, and in the majority of instances only appears when the flowers have passed their best. At other seasons it is seen at a much earlier stage, and at such times, if fertilised by bees or other insects, does affect the longevity of the flower. Its removal is easily effected with a pair of scissors or tweezers. Lilies for the express purpose of retaining their purity of tone are de-anthered by market-growers and florists alike, but that, of course, is another matter. In like manner all flowers intended for hybridising or cross-breeding have their anthers removed at quite an early stage, as if left to mature the pollen, the aim and object of the hybridist would be defeated at once. This latter is, therefore, an essential to the success of the work in hand, and does not touch the question you have raised.

Plantains on the lawn (*Anthony*).—The best way to get rid of Plantains from a lawn is to pull them out, taking care to remove all the rootstock. It is possible to kill a certain number by applying salt and various chemicals, but in many instances the top only is destroyed and a new head of leaves is formed from the rootstock. By continually cutting them off below the ground it is possible to so weaken them that they will die in time, but if they are left a week or two longer than they ought to be they strengthen again very quickly.

Polyanthus leaf (*J. F.*).—Though green fly may have been present on the plants, it is certainly not responsible for the many holes appearing in the leaves. These are doubtless caused by slugs or by caterpillars, the last-named the more probable. Dust fresh soot about the surface soil occasionally, and if possible, at dusk, or a little later, examine the plants for the pests we have named. A small black slug is very troublesome in certain soils, and, being of dark colour, is not readily seen. It is only rarely that permanent injury is done to the plants.

ROSE GARDEN.

Pruning Roses (*White Rose*).—We are glad to know you find "Rose Growing Made Easy" so helpful to you. The subject of pruning is always a difficult one for the beginner, and in this book the author endeavours to help beginners as much as possible. When about to prune a Rose, you should first of all cut away all dead, weak and unripe shoots right to the base. By "unripe shoots" we mean such as are very pithy. The best shoots are those that are hard and firm and of the previous year's production. When instructed to prune "hard," cut these shoots back to four or five eyes from the base, and two or three eyes may be left on the lateral growths which spring from the older wood. When instructed to prune "moderately," the young hard shoots should be cut back to about six or eight eyes; but this would depend somewhat upon the vigour of the variety. If you find one variety grows twice as vigorously as another, then this more vigorous grower should have more eyes retained, say, some eight to twelve, and even more than this providing the growths are really hard, which means they are well matured. Soft, pithy wood is useless, and should be cut away in all cases. To prune "lightly" means that the strong, ripened shoots may be retained almost full length, and as the number of eyes varies in the different sorts, we cannot give any definite number. You will find that those varieties which make very long and strong annual growths are best pruned lightly; indeed, they are best grown as pillar Roses, retaining their growths some 4 feet to 5 feet long. The next season these long growths would send out a number of side growths or laterals, which will bloom. These laterals the following season are cut back hard to two or three eyes, and the following year the whole growth may be discarded to make room for newer growths, which in most cases are already present. In the case of Briar Roses such as Austrian Copper, the reader is instructed to prune lightly; merely removing extreme tips of shoots will suffice.

Rose species and hybrids of species (*W. P. C.*).—We have pleasure in giving the names of a few which we consider the very best to grow: Rosa clynophylla plena, R. setigera, R. altaica, R. Hugonis, R. lucida, R. pimpinellifolia, R. macrophylla, R. Albertii, R. Andersonii, R. humilis rugosa, R. lucida plena, R. pomifera, R. rubrifolia, R. alpina, R. hispida, R. indica Miss Willmott and R. wichuraiana alba.

Climbing Roses to add to pergola (*W. B. C.*).—You have a very fine collection and well up to date. There are, however, several kinds you should possess, the most important being American Pillar, Leontine Gervais, Joseph Lamy, Bagatelle, Diabolo, Minnehaha, Réné André, White Dorothy, Goldfinch, Lady Waterlow, Ards Rambler, Joseph Billiard, Alberic Barbier, François Crousse, *Sarah Bernhardt, *Avoca, *Mrs. Stewart Clark, and Climbing Captain Christy. Other beautiful sorts would be *Bardou Job, *Beauté de Lyon, *Gloire des Rosomanes, *Lina Schmidt-Michel, Grüss an Teplitz, *Johanna Sebus, Non Plus Ultra, Grüss an Zabern, Elise Robichon, Lady Gay, Paul Transon, Robert Craig, Paradise, Ruby Queen, Helene, Félicité Perpétue, Bennett's Seedling, Morletti, Flora, Souvenir de Mme. Joseph Metral, Dr. Rouges, Mme. Jules Siegfried, Crépuscule, Climbing Cramoisie Supérieure and *Sheilagh Wilson. The varieties marked with asterisks are semi-climbers only. We do not know anything of the Hungarian Climbing Rose under this name, but doubtless it is some old variety.

THE GREENHOUSE.

Bulbs going wrong (*F. J.*).—It is impossible for us to say why your bulbs have not flowered properly, because you give us no particulars as to their treatment. If you will send us one or two of the bulbs, describe your treatment, and enclose your name and address as per rules, we shall be pleased to assist you.

Solanum leaves for inspection (*W. R.*).—The trouble with the Solanums is called intumescence. It results from the cells taking up more water than they can hold, with the result that some burst and others grow greatly in size compared with that they ordinarily attain. This is due to keeping the plants in too moist air with insufficient ventilation.

Chrysanthemum leaves for inspection (*B. W.*).—The Chrysanthemums are attacked by the Chrysanthemum rust fungus (Puccinia chrysanthemi). This fungus is sometimes very destructive, and it would be well to take care that cuttings used this year are not infected. Also spray the plants at intervals with potassium sulphide, 1oz. to three gallons of water, through the season. Practically nothing can be done now but to burn the infected foliage.

Greenhouse construction for foliage plants (*H. F. M.*).—Fine-foliaged plants that will thrive under the same conditions as the Chrysanthemums, Carnations, Pelargoniums and Primulas named by you are Aralia Sieboldii, A. S. variegatum, Asparagus Sprengeri, Araucaria excelsa, Aspidistra lurida variegata, Cordyline (Dracæna) australis, often known as indivisa, C. Bruantii, C. Doucettii, C. Eckhautei, Ficus elastica, Grevillea robusta, Nerium Oleander variegata, Ophiopogon Jaburan argentea variegata, O. spicatum aurea variegata, Phormium Colensoi and P. Veitchii. We should certainly not advise you to use the rough rolled glass for the roof, as it obstructs far too much light during the dull season of the year. Permanent shading is by no means desirable, particularly in the case of Carnations and Pelargoniums, which quickly draw up weakly under its influence. We should certainly advise

you to use clear glass, and if the structure is unsuitable for shading by means of blinds, the glass may in the spring be painted over with Summer Cloud, washing it off in the autumn. To obtain flowers during the winter, every scrap of light and sunshine is necessary. We have had no experience of the boiler mentioned by you; but, of course, a small boiler can be readily heated by gas, the one thing essential being to take great care that none of the gas fumes can enter into the conservatory.

MISCELLANEOUS.

Treatment of bones for manure (*G. R. B. M.*).—The simplest way of utilising old bones will be to crush them up as small as possible, or to have them ground up into meal. To make "dissolved bones," sulphuric acid is used, but without proper vats its use is attended with very considerable risk.

Grubs in the soil (*E. A. C.*).—It is impossible to advise without knowing what grubs are present and what kind of soil. A very frequent cause of infertility is lack of lime, and this also favours the multiplication of insect pests. Possibly your soil needs lime, and if so, unslaked lime should be put in heaps on the soil at the rate of a half-bushel to the square rod, be covered with soil, allowed to powder, spread on and dug in now.

Ling and Heather on golf course (*Conway Morgan*).—The best way to get rid of Ling and Heather is to grub it up a few inches below the ground. It is possible that seedlings will grow afterwards; but if you sow grass seeds on the site and keep the whole regularly mown over with a machine, the young plants of Erica and Calluna will not make serious headway. If you leave the mowing undone for a time, however, it is quite likely that the Ling and Heather will make headway again.

Exhibiting the Ten-week Stock (*A Constant Reader*).—The exhibitor to whom you refer did not conform to the schedule in the case, and should, provided you have quoted the schedule aright, have been disqualified. A growing plant is in no sense "a bunch" as that phrase is usually understood by flower show committees. It is not whether the terms or conditions of the schedule appeal to exhibitors or the reverse; it is the duty of all competitors to comply. A "spike of Ten-week Stock" is nothing more than one of the flowering branches of the plant, and, of course, the latter may be made up of many flowering branches, the largest of these only being employed as a rule for exhibition work. The growing plants would, of course, make a much more attractive exhibit; but the exhibitor, having been guilty of a technical breach of the conditions, should have been precluded from receiving any prize.

Garden weed (*C. B. W.*).—The small, close-growing weed of which you send a plant is a very common one found in almost all soils, and once it gets a hold of the ground, because it seeds freely, is hard to exterminate. Its name is Spergula pilifera. Some years ago, when we had hot, dry seasons and grass lawns did badly, it was suggested that this plant, which thrives in dry weather, would make a good lawn base and save mowing. But, like so many other suggestions of a similar nature, not only did grass appeal most strongly to us for a lawn base, but the Spergula when tried proved to be unsatisfactory. There is in commerce a golden yellow form known as pilifera aurea, which does not seed and makes a charming rock or carpet plant, as in November its colour is very bright. Your best course with this weed, where it presents itself in paths or coach roads, is to give it a watering with properly prepared weed-killer, and where it grows on beds or borders to have it constantly cut up with the aid of a hoe, and thus in time destroy it. Lime or soil dressings will not do so.

Names of fruit.—*C. H. S., Bristol.*—Apples: 1, Bess Pool; 2, Margil.

Names of plants.—*E. May.*—Teucrium fruticans. ——*A. C. G.*—Albuca fastigiata.——*J. Philcox.*—1, Moschosma riparium; 2, Cypripedium caudatum.——*C. H. S., Bristol.*—Abelia chinensis.

SOCIETIES.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

AT the annual business meeting of this association held there the other evening, a generally satisfactory report was submitted by the secretary and the treasurer, the latter's statement showing a credit balance, from which honorariums were voted to the secretary and treasurer, who did not desire reappointment. Thanks were given to these officials, who had done much excellent work. Mr. Beats, the treasurer, in particular having put himself to much inconvenience to attend to his duties, although he had been away from the town for a while. Office-bearers were appointed, the honorary president being Mr. W. Grant, Fernhall Gardens; the acting president, Mr. James Bethel, The Grange; and the vice-presidents, Mr. R. Stewart, Mr. James Slater and Mr. D. K. Meston. Mr. James Croll, Ashley Grove, was appointed secretary, and the treasurer's duties were undertaken by Mr. William Brown, Cambustay Gardens.

BOURNEMOUTH GARDENERS' ASSOCIATION.

ON January 3 the first lecture of 1911 was delivered by Mr. C. Pearce of Astney Firs Gardens on "The Cineraria." Mr. Reeves sen., presided. The lecturer first referred to the comparative ease with which Cineraria plants could be grown. The first sowing of seeds should be made early in April if very early flowering plants were desired; but for ordinary purposes the latter part of May or during June was quite early enough for seed-sowing, and at that season the seeds must be sown in a cool frame. He said that plants raised under an ordinary hand-light placed on a cool border outside were stocky and satisfactory in every way. The lecturer advised cultivators to transplant the seedlings around the sides of shallow pans in preference to putting them in small flower-pots, as the roots dried so quickly in the latter at this season of the year. For the final potting a mixture of fibrous loam, leaf-soil, rotted manure, sand and old mortar rubble was recommended. Mr. Pearce favoured road grit, especially for mixing with the composts for the young plants.

A long discussion took place at the end of the lecture. The cause of the sudden collapse of the plants was keenly discussed, several members saying it was owing to eel-worms being present. The advantages of soot-water, both for feeding and syringing, the topping of the young plants and other cultural matters were keenly debated.

GLASGOW SEED AND NURSERY TRADE ASSOCIATION.

THE annual dinner of this association was held in Glasgow the other evening, when there was a large attendance of members and their friends. The chair was occupied by Mr. A. N. Hunter of the firm of Messrs. Austin and M'Aslan. The leading toast of the evening, "The Seed and Nursery Trade Association," was ably proposed by Professor M'Alpine of the West of Scotland Agricultural Association. He spoke in high terms of the character and ability of those engaged in the Scottish seed and nursery trade, and referred to the fact that he had experience of the seeds, seeing that he had for many years tested those they supplied. He also urged that the Glasgow Corporation should take up the question of window decoration more than they had hitherto done. The response to the toast was made on behalf of the trade by Mr. W. Williamson of Messrs. Williamson, Gemmell and Co., who expressed the pleasure of those present at the presence and speech of Professor M'Alpine. He was proud to belong to the trade, and this pride he found that others in it shared. Mr. Williamson mentioned that the Corporation had found that their efforts to promote the growth of window plants in boxes had been a failure. A number of other toasts were proposed, and a pleasant evening was made more agreeable by songs, &c.

"My Garden Diary for 1911."—Following their usual custom, Messrs. Sutton and Sons have just published a charming little garden diary under the above title. The covers, which are beautifully printed in colours, represent a most attractive old-world garden, while on each page useful reminders for the respective months are given. The price of this diary is 1s. net.

Changes in an Edinburgh seed firm.—By the death of Mr. A. Milne, the sole partner of Messrs. James Dickson and Sons, some months ago, Edinburgh lost one of its best-known nurserymen. Mr. Milne's heirs have just disposed of the business to Mr. James Stuart and Mr. Eric P. Laird, who will in future carry on the concern under the old name. Mr. Stuart, who has been in the employment of the firm (latterly as manager) for thirty-two years, is well known and respected throughout Scotland, where his genial disposition and sterling business qualities have earned for him troops of friends. Mr. Laird is a son of the late Mr. David P. Laird, who in his day was perhaps the best-known nurseryman in Scotland. The firm of James Dickson and Sons was founded as long ago as 1801, and has always held an honourable place among Scottish seed houses. The many friends of the two new partners wish them every success in their new venture.

Two useful garden directories.—"The Horticultural Directory and Year Book for 1911" is now to hand, and we find its pages filled throughout with useful information. It contains addresses of gardeners, nurserymen, and secretaries of horticultural and botanical societies. It is well arranged and contains over 600 pages. The price is 1s., and it may be obtained from 12, Mitre Court Chambers, Fleet Street, London, E.C. Another work of a similar character is "The Garden Annual Almanack and Address Book." Among other features it contains a list of the principal gardens, arranged in order of the counties, and alphabetical lists of gardeners, nurserymen, florists and the country seats of the United Kingdom. It may be obtained in paper covers at 1s. 3d. per copy, or in cloth at 2s., from the Publisher, 17, Furnival Street, London, E.C.

The Perpetual Flowering Carnation Society.—At the show of the Perpetual Flowering Carnation Society a noticeable feature, in spite of the excellence of the display as a whole, was the reluctance or shyness of the purely amateur in coming forward with his exhibit, a regrettable feature, because the Perpetual-flowering Carnation is a flower from which an amateur with a slightly heated greenhouse can obtain more pleasure and profit probably than from any other flower. The Perpetual Flowering Carnation Society exists for the encouragement and interests of this flower, and although the prizes offered in the amateurs' section are not large ones, they are well worth the attention of the amateur, and even those who only grow a few plants. Turning to the section for amateurs and gardeners possessing more plants, many valuable prizes are offered. The president's (Lord Howard de Walden) fifty-guinea cup and such money as 20s. for one bloom are well worth attention. Those intending to exhibit at the next show, to be held at the Royal Botanic Gardens, should become members at once. The membership fee is only 5s., although those subscribing 10s. 6d. or 21s. have additional privileges. The hon. treasurer is Mr. Laurence J. Cook, Mapledene, Wellington Road, Bush Hill Park, Middlesex.

"Country Life" for January 14 contains, among other articles, an illustrated account of "The Abbot's Grange and Russell House at Broadway, Worcestershire"; "Tale of Country Life: The Sea Spell," by Adam Lorimer; "In the Heart of Africa" (illustrated); "Wild Country Life," by H. A. Bryden; "A Corner of Hertfordshire" (illustrated), by Oliver G. Pike; "In the Garden: The Winter Treatment of Old Fruit Trees"; "The Badger" (illustrated), by Frances Pitt; "A Hill Herd's Hunt," by J. Cleghorn.

TRADE NOTE.

A CHEAP AND EFFECTIVE SEED PROTECTOR.

MR. H. N. ELLISON of West Bromwich, Staffordshire, has sent us a pair of the Dunsmore Gossamer Seed and Plant Protectors, which we find to be useful, cheap and practically indestructable. Like many other good things, this invention is simplicity itself. Two half-circle pieces of stout tin, painted green, are fitted with metal legs, which are thrust into the soil, and which, when not in use, can be neatly folded up. On the curved upper edge of the tin notches are cut, so that black cotton can easily be threaded in them. One portion of the protector is fixed at one end of a row of seeds or plants, and the other at the opposite end, and the cotton is then stretched taut from end to end. Thus, a row some yards in length can be easily and effectively protected from birds or cats. As these protectors are only 4d. per pair, or 6d. post free, we think they should meet with a large demand. Mr. Ellison will be pleased to furnish full particulars of this invention, together with a free copy of his interesting seed catalogue, to any of our readers who care to write to him.

PUBLICATIONS RECEIVED.

The enormous demand for the earlier parts of the "*Strand*" *Musical Portfolio* of copyright music is being fully maintained, and is likely to increase if the high standard of the parts already issued is kept up till the end. Part 8, which is now on sale everywhere, price 7d., contains three songs, among them being that popular favourite, "Never Mind the Weather." In addition there are two excellent pianoforte pieces. Considering that each is copyright and that all are printed full music size on good stout paper, this part, like its predecessors, must be regarded as a marvel of cheapness.

The *Grand Magazine* for February is one of the brightest and most interesting numbers that we have seen of this popular all-fiction monthly. Stories by all the leading writers of fiction are included, and this magazine is worth considerably more than the low sum of 4½d. asked for it. Like the "*Strand*" *Musical Portfolio*, it is published by Messrs. George Newnes, Limited, Southampton Street, Strand, and can be obtained at all bookstalls and newsagents.

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*



THREE GOOD PÆONIES.

PRIDE OF LANGPORT.

SILVER ROSE.

DOG ROSE.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE CULTIVATION OF ASPARAGUS.

OF all kitchen garden crops, this, when properly served up, is considered the greatest delicacy by the majority of people. Owing to its excellent forcing properties it is possible to obtain early dishes considerably in advance of the outdoor crops. Many people form an erroneous idea that Asparagus can only be grown by those possessing extensive gardens, and that it requires lavish expenditure to bring it to success. Such, however, is far from being the case, and when once a plantation is properly established, comparatively little attention is required. The initial outlay is perhaps a little expensive, as it is necessary to have the ground in the best condition at the time of planting; but when the foundation is properly carried out, Asparagus beds will produce good crops annually for twenty-five years and perhaps more.

The best site on which to form permanent beds should be an open one, quite free from the shade of overhanging trees and from the roots of any large trees, which would quickly impoverish the soil. Where the land is heavy and of a hungry nature, means must be adopted to remedy this in the best possible manner. During the autumn trench the ground to the depth of at least 3 feet, and, if procurable, add some turfy loam from an old pasture, with a sprinkling of mortar rubbish and decayed farmyard manure. Allow the ground to remain rough and exposed to the elements of the weather until the beginning of April; then fork over the surface and mark out the position the new beds are to occupy. The dimensions most suitable are a width of 4 feet for the beds and an alley 2 feet wide. This will be found most convenient to allow of easy access without treading on the beds when weeding or cutting the growths. Take the soil out of the alleys and throw it on the beds; and with the exception of very light sandy soils, the beds are best raised above the normal level. Planting is best performed in dull, showery weather, and the roots of the young plants should not be exposed to the air longer than is absolutely necessary. Mark out the positions the rows are to occupy—three will be sufficient for a 4-foot bed—and plant at 15 inches apart. There are various methods of raising the plants, but I do not advocate sowing the seed on the permanent bed. The best method is to sow seed in 3-inch pots about the end of April, stand them in a cold frame pot to pot, and water carefully until the seed is germinated and the pots are full of roots. Before they get too large, thin out to one, or two at the most. On the approach of winter plunge the pots in coal-ashes to prevent damage from frosts. When planting, knock out the young plants carefully, spread out the roots flatly and evenly, and cover with about 3 inches of fine soil. Through the summer months endeavour to promote a good growth by keeping the beds free from weeds, and give water in the event of dry weather. Give a sprinkling of an approved fertiliser, preferably during showery weather. No other crop should be allowed on the beds themselves, but the alleys may be planted with Lettuce if space is badly needed. Support the growths on the edge of the beds either with brushy stakes or a stretch of twine. When fully ripe cut down neatly with a pair of hedge shears near to the ground, give a surface-dressing of rotten manure, and just cover with soil from the alleys to present a neat appearance. The beds should remain in this condition until April, when the roughest of the soil may be drawn into the alleys with an iron rake and a dressing of agricultural salt applied, which is one of the best fertilisers this plant can have. Not until the second year after planting should any of the young heads be removed for cooking purposes, no matter how freely they may be produced or how strong and well the beds appear to thrive. This is most imperative, and greatly affects the future welfare and production of the plantation. When ready for cutting, the growths should be removed with an Asparagus knife when 3 inches to 4 inches above the soil, placing them with the ends in water until required for use or a sufficient quantity is collected.

This vegetable is forced in a variety of ways, providing the one thing essential is available, viz., bottom-heat. In some establishments a shed exists, expressly provided, for forcing Asparagus; but one of the best ways I know, and the one I usually adopt, is the use of portable frames on a hot-bed. Build up a hot-bed consisting of tree leaves and long stable litter, and make thoroughly firm. This should be sufficiently large to accommodate the frames intended and leave a good margin all round. When the bed has settled,

place the frames in position. After the rank heat has escaped and the heat is on the decline, place about 3 inches or 4 inches of light material on the bed; almost any kind of soil will do, but for preference loam, leaf-soil and spent Mushroom manure well mixed together. Strong crowns, either home-grown or purchased from a reliable grower, should then be laid out evenly over the soil, covering them with similar compost and well watering in with a rosed can and water with the chill taken off. Keep the lights close, generally speaking; but when the weather is bright, air can be admitted. Syringe occasionally with tepid water to keep a humid atmosphere, and when growth commences an application of weak manure-water can be given. As a guide the temperature should be maintained at about 65°, and on cold nights protect the glass with mats, straw or other similar covering. Keep the glass thoroughly clean to admit plenty of light and to avoid the growths becoming drawn. Endeavour to maintain a regular supply by introducing fresh roots in frames alternately. Provide fresh linings of material to the frames from time to time to engender more heat. When exhausted, the old roots should be thrown away, as they are of no further use. Asparagus makes a telling dish for a collection of vegetables during May or June when properly washed and staged. A variety for general purposes and hard to beat is Connover's Colossal. E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

NOTES OF THE WEEK.

FORTHCOMING EVENT.

January 26.—Manchester Horticultural Improvement Society's Meeting.

Snowdrops in South-West Scotland.—The common Snowdrop came into flower in the grounds of St. Mary's Isle, Kirkcudbright, on December 23, 1910. This is one of the earliest places in the South-West of Scotland, its proximity to the sea, with a warm exposure and a sheltered situation, causing many subjects to be considerably earlier than in the greater number of gardens in the same locality.—A.

The Gardeners' Royal Benevolent Institution.—The seventy-second anniversary festival dinner in aid of the funds of this institution will take place on Tuesday, May 23 next, the first day of the Temple Flower Show, when Alderman Sir Marcus Samuel, Bart., will preside. The dinner will be held, by kind permission of the Worshipful Company of Grocers, in the Grocers' Hall, Prince's Street, City.

British Gardeners' Association.—During the past year the association has made greater progress than usual. Three hundred and fifty members have been elected, bringing the total up to 1,964 at the beginning of December. It is anticipated that early in the New Year over 2,000 gardeners will have joined the association since its establishment. The monthly journal has been increased in size and the executive council have adopted a scheme for professional gardeners' examinations, the first one to be held on Wednesday, April 26, at 7 p.m. On Saturday, the 21st inst., a public meeting of gardeners in the Birmingham district will be held at the Cobden Café, Corporation Street, Birmingham, at 7.30 p.m. Mr. James Udale will preside, and addresses will be given by the chairman and secretary of the British Gardeners' Association and other well-known gardeners. A cheap train will run at 2.55 p.m. from Burton-on-Trent to Birmingham (1s. 9d. return), and a tea will be provided at 1s. each, at 6 p.m., for those who come from a distance.—J. WEATHERS.

Royal Caledonian Horticultural Society.—The annual general meeting of the above society was held in Dowell's Rooms, Edinburgh, on the afternoon of Wednesday, January 11. There was a good attendance, presided over by Mr. J. W. M'Hattie, City Gardener, one of the vice-presidents. The report of the council was generally of a favourable nature, as would be gathered from the summary of the financial position which we have already published, and it was adopted. The feature of the meeting which caused greatest interest, and which was of much importance, was the report of the committee jointly appointed by the Royal Caledonian Horticultural Society and the Scottish Horticultural Association to consider the question of the amalgamation of the two bodies. Several schemes had been under consideration, that which received particular attention being one to dissolve the two bodies and to form a new society. The charter of the Royal Caledonian Horticultural Society, however, gave no power to dissolve, and the opinion was expressed that to dissolve the society without the consent of the Crown would involve the former in the risk of forfeiting its property to the Crown, and that the society holding the control of the Neill Prize Fund presented another difficulty. After consultation with counsel and with high officials, such as the Secretary for Scotland, there seemed only two courses, *i.e.*, to arrange for the Scottish Horticultural Association to unite with the Royal Caledonian Horticultural Society under the latter's charter, or to apply to the Crown for a new charter, which would be a costly process and would involve other difficulties; and it would be necessary for the next-of-kin of the late Dr. Neill to give their consent to the administration of the fund by the new society, and they could not be traced. The scheme for the association joining the society under the latter's present charter had been rejected as unsuitable. The chairman moved the adoption of the report and expressed the hope that amalgamation might yet be effected, although he was averse to a new charter. Mr. King seconded the adoption of the report, which was agreed to. Mr. Stewart Clark was reappointed president; Mr. W. Younger, Ravenswood, Melrose, a vice-president; and Mr. James Whytock, Mr. W. H. Massie and Mr. G. P. Berry were elected members of the council to fill the ordinary vacancies.

East Anglian Horticultural Club.—The twenty-first annual dinner of this club was held at the Criterion Restaurant, Norwich, on January 11, and was attended by the leading professional and amateur horticulturists of the district. After the loyal toasts had been duly honoured, Mr. J. E. T. Pollard gave "Success to the East Anglian Horticultural Society." The speaker said he was pleased to see that the past good work of the club had been well maintained. Its work had gone forward, its position had improved, while the finances were in a sound condition. The club had achieved a great success this year by winning the Royal Horticultural Society's silver cup for fruit, and he thought such a success placed them well in the forefront of similar societies in the kingdom. The president (Mr. Lewis Smith) responded. He referred to the excellent series of lectures, essays and exhibitions which had been held, and said that such useful educational work must make itself felt in the career of all young gardeners who attended the meetings. Mr. J. F. Betts proposed "Success to the Norfolk and Norwich Horticultural Society," and in the course of his remarks said he was pleased to learn that this society did not intend to drop its spring show this year. Mr. A. W. Preston responded. He took the opportunity of explaining that this year's Norwich Rose show would be held in conjunction with the great show of the Royal Agricultural Society, which was holding its meeting at Norwich. Mr. John Clayton, in some well-chosen remarks, gave "Success to the Royal Horticultural Society," to which Mr. Charles Daniels replied, and in doing so gave some interesting facts and figures of the great work of this society.

CORRESPONDENCE.

(*The Editor is not responsible for the opinions expressed by correspondents.*)

Squirrels and fruit.—I should like to add my testimony to that of your other correspondents in regard to squirrels and the damage they do in gardens. Here in Regent's Park we have numbers of these interesting but mischievous creatures, which have originated from the Zoological Gardens. They have made themselves quite at home, and are of great interest to visitors who frequent the park. They are, I believe, natives of North America, and are much lighter in colour than the English variety. In the spring of 1910 they commenced operations by uprooting a number of Crocus bulbs. A few dressings of soot, however, put a stop to their depredations in this direction. When the Strawberries were ripe they were a great nuisance, and on several occasions I saw them making off with ripe fruit. They also turned their attention to the Horse Chestnut trees by biting off the tips of the young shoots and extracting the pith, thereby disfiguring the trees and lessening the show of bloom for this season. They are bountifully fed by people in the park with Nuts of all descriptions, but I have no doubt that a change of diet is found very agreeable.—J. WOOD, *St. John's Lodge, Regent's Park.*

Galanthus Elsæ. Those interested in the Snowdrop may like to know that this Greek Snowdrop bloomed with me last year in the second week of December. It is a shapely little flower of the nivalis type, is not a strong grower, and has made hardly any increase since I first received it in 1892 from the late Mr. F. W. Burbidge. Like others of its class, it has the feature of a white line down the centre of each leaf. It is, naturally, rather delicate, and slugs have a partiality for its flowers as they pierce through the soil. It came originally from Mount Athos in Greece in 1889, and flowered in October of that year; but this seems earlier than it has bloomed since, and Mr. James Allen first flowered it on December 17 at Shepton Mallet. This appears to be about its usual time in this country.—S. ARNOTT, *Sunnymead, Dumfries.*

Lilium giganteum from seed.—Sir Herbert Maxwell (page 3) expresses surprise that I did not, in my recent article on this Lily, "mention the surest way of raising a stock of it, namely, from seed." My article was not, however, intended to be exhaustive, its special object being, as I pointed out, to prevent those with little knowledge of the species from taking the "surest" as well as the shortest cut to disappointment and failure. In quite the largest number of bulbous-rooted subjects the best results are the outcome of the finest-developed bulbs. It is unmistakably so with many species of Lilies, though even here

there is a marked difference between the autumn or winter planted and the established roots. This is so entirely reversed in the case of L. giganteum that I considered it worth while to direct special attention to the fact. By planting bulbs two years or three years old instead of larger ones, and allowing them to grow and flower where first planted, as directed in my original article, any amateur may share with Sir Herbert Maxwell the pleasure of the giant flower-crowned stems of which this noble species is capable. Seedlings I have raised by hundreds, probably thousands; and for anyone having the space and patience at command seedling-raising is worth indulging in to the full. I hope, therefore, that a large number will avail themselves of Sir Herbert Maxwell's generous offer of seed and try for themselves. It would, however, ease the waiting years if those who are interested in this Lily would plant, for two seasons at least, some half-grown bulbs. These would flower in about three years from the planting, leaving the seedlings to bring up the rear.—E. H. JENKINS.

—— In response to my note offering seed of this Lily I have received a very large number of requests for it, all of which I hope to fulfil before the end of next week. But as some of my correspondents ask for directions how to treat the seed, perhaps you will allow me to describe the method I have found successful. Sow the seed in boxes in a compound of one-third loam, one-third sharp sand and one-third peat or leaf-mould. Keep the boxes in a cold frame in winter and protected from full sunshine in summer. The seed generally does not germinate under fifteen months if sown at this season. Prick out the seedlings when fit to handle in spring in a north or west border. The ideal soil for this Lily is peaty loam; avoid chalk or lime. When pricked out the seedlings should be 6 inches or 9 inches apart, and should not be disturbed till the third year, when they may be moved in October to where they are intended to flower. In planting out in permanent positions, dig a hole 2 feet deep, lay some rich manure or dead fish at the bottom of it, cover with peaty loam, and plant the bulb with its nose just level with the surface. The Lily enjoys moderate sunshine, but requires a cool root-run and will not endure parching or drought. It is a gross feeder, and must be treated liberally if it is to attain its full stature. The bulb dies after flowering, but produces several offsets.—HERBERT MAXWELL, *Monreith*.

Sweet Peas—A. B. Essex on the wrong road.—There is no amateur who does not behold with admiration the long stems and large flowers of Sweet Peas as shown by leading exhibitors. The amateur grows only the little wiry 6-inch stems and the biflorous scapes that A. B. Essex so much adores for home decoration, for want of confidence in himself to cultivate the better and newer varieties. He is like the small farmer who grows what his father grew, and his father that which his grandfather grew, and it takes a lot of object-lessons to get him out of the rut. Where is the artistic eye that can despise a vase of Sweet Peas with their 24-inch stems and with the waviness that A. B. Essex calls sometimes hideous? Is it not the length of stem and waviness of the flower that give it the beautiful decorative aspect? Stand a vase of the amateur's antiquated varieties beside a vase from a leading exhibitor and the old sorts only resemble Vetches. By all means let us have the large waved flowers of Mrs. Routzahn and Helen Lewis. It is only by the exhibitors' efforts to mount the highest rung of the ladder that these have been produced, and by that road are many and much better varieties to follow.—A NEW YEAR GARDENER.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY POT VINES.—Those Vines started at the beginning of November will now be growing freely, and more generous treatment must be given them both in regard to the atmospheric temperature and root moisture. The temperature at night may be raised to 65°; during the day it may rise to 75° or 80°, but a little air should be admitted at the top of the house during the forenoon for a short time whenever the glass approaches 80°. Remove all the surplus shoots when it can be determined which are showing the best bunches. Stop the remaining shoots two or three joints beyond the bunch, and at no time allow the laterals too much freedom, for when the trellis is covered with foliage, all the energy of the Vines will be required to mature the crop.

Early Permanent Vines.—Before these come into flower examine the border to see if it requires water. Do not water unless it is really in need of it till the bunches are set. It is not necessary to hurry the final disbudding of the shoots, as root-action at this stage is very slow. It may be necessary to place coverings on outside borders to carry off heavy rains or snow; but unless the Vines are growing entirely in outside borders, I do not think it advisable to place fermenting materials on the borders, as this may tend to sour the soil.

Early Peaches and Nectarines.—Fumigate those trees which are just coming into flower. Keep the atmosphere dry during the flowering stage and carefully fertilise the flowers daily before noon, taking particular care to fertilise those flowers on the upper side of the trees. Encourage a free circulation of air at this period, but avoid cold, cutting winds at all times. Disbudding should be done on the piecemeal system, removing the growths on the lower side of the shoots first. When this work is completed, there should be only two young growths left on each shoot, one at the base and one at the point.

Strawberries in Pots.—Place batches of these indoors as occasion demands. Fruit-houses just started are ideal places in which to force Strawberries, but they should not be allowed to remain near the trees to mature, because of red spider. It is a good plan to lay the pots on their sides and syringe the plants with an insecticide before placing them under glass.

KITCHEN GARDEN.

French Beans.—A batch of these may be sown in 7-inch pots in a fairly rich compost. They will require plenty of heat and moisture, and should be grown as near to the glass as possible. Osborne's Forcing is a capital variety for this purpose.

Broad Beans.—Make a sowing of these on a warm border as soon as the ground is in a suitable condition. Giant Windsor will be found suitable for this sowing.

Peas.—A sowing of these must also be made as soon as an opportunity offers in a warm, sheltered position, or in pots or boxes under glass. The Pilot is one of the very best for this purpose.

Cauliflowers.—Give plenty of air to autumn-sown plants during fine, open weather, and keep the glass clean to induce sturdy growth. The watering of these plants must be constantly attended to. Do not allow young seedlings to become crowded and drawn before pricking them out into their boxes Another sowing may be made now.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS PLANTS.—It is necessary from time to time to thoroughly overhaul and replant some parts of the herbaceous border, and where this department is at all extensive it is advisable to do a portion annually. If the old plants are all lifted, carefully heeled in and given a slight protection in the way of Bracken or Spruce branches to guard against extreme weather, the renovation of the border or beds can then be undertaken. With the removal of the large old stools the level of the soil will be considerably lowered, and what is left will be very much exhausted, so that there is ample room for restoring it to good condition by the addition of suitable soil. It should be deeply trenched and liberally manured, adding good loam, and in the case of heavy soils some leaf-mould and lime rubble. By preparing the ground now it will have settled somewhat by the time planting has to be done, and if the plantation is in any way extensive, a plan of the work should be prepared in advance. The work of preparing the plans forms an interesting occupation for the long winter evenings, besides furnishing a permanent record of the names where the labels may have been lost or misplaced.

FORCING VEGETABLES.

Continue to put in successional batches of Seakale, Rhubarb and Asparagus roots. These can be conveniently forced on the lower stage of the Mushroom-house, the roots being planted in a bed of rough leaf-mould or other soil sufficient to keep the crowns and roots moist. Sacking or old mats can be used to shut out light and keep draughts from the young growths.

Seakale may be successfully forced in any heated structure if the roots are placed in large pots with inverted pots over them to exclude the light. They can then be moved into more heat or retarded, according to requirements; but Seakale of the finest quality can only be had if a moderate and humid temperature is employed throughout and the heads cut as soon as developed.

Asparagus.—When forced this is a most acceptable vegetable, and can be treated in the same manner as the former; but under no conditions does it thrive better than when placed in frames on a mild hot-bed, the quality being far superior than if subjected to a high temperature in houses a long way from the glass. The same hot-bed may be used again and again, for as the season advances less artificial heat will be required.

Potatoes.—For early supplies these should be sprouted in boxes before planting in pits or frames, which will reduce the time that must elapse between planting and digging. Great care must be taken in ventilating on fine days, also in adding fresh soil when they are ready for earthing-up.

Onions.—To ensure a good crop of Onions, in many districts it is necessary to sow these in quantity under glass for the main crop out of doors, planting them out at a time and size when they can resist the attacks of the Onion fly. Whether the Onions are intended for exhibition or not, it is advisable to raise a portion, if not the whole, of the crop under glass. The seed should be sown in well-drained boxes of good soil any time this month, using only a gentle heat, such as that in an early Peach-house which has just been started, and pricking out when large enough to handle. A high temperature at any time should be avoided, and the plants gradually hardened off in readiness for planting out, which should be early in April.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

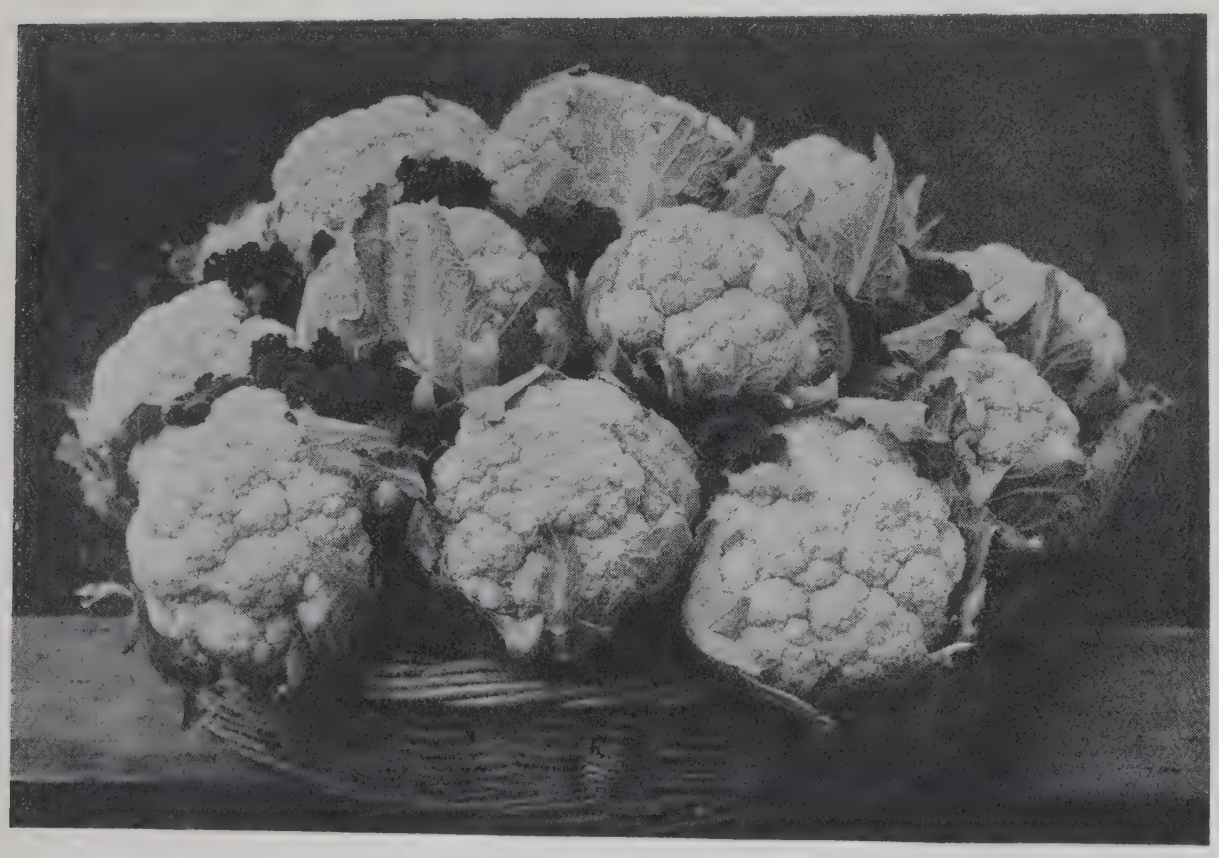
THE KITCHEN GARDEN

A SIX MONTHS' SUPPLY OF BRUSSELS SPROUTS.

THE value of this winter vegetable is so well known that I need not dwell upon its merits for use from October to the end of the year, though, as all growers know, it is of much better quality when the weather has sweetened the growths; and after the date I have named I think there are few vegetables more useful. My note as regards culture will be brief. In these days, with such excellent types to select from, there is no difficulty in having splendid material for a six months' supply. I may say that the gardener of the present day is in a much better position than was the gardener of fifty years ago. No matter what vegetable we select, it may be termed almost perfect as regards shape, size, its season and, I may add, quality. I note that the huge Sprouts favoured some time ago are now less fashionable, and this is a good sign. Quality has proved its superiority over quantity. For years in these pages I have advocated this point, though, as most growers know, all large vegetables cannot be condemned.

Culture.—I am often asked which Brussels Sprout is the hardiest. In this much depends upon the culture, the soil and other matters. For instance, in a light, porous soil plants are more injured than in a deeply cultivated clay soil. In the latter the plants require a full season's growth, but they give a wonderful return. Doubtless to get a good supply of early Sprouts there is a great gain in sowing the seed in a frame, pricking out the seedlings when large enough, and then transferring them to their permanent quarters, planting with a trowel and a good ball of earth. I am aware that some excellent growers sow in heat, and adopt much the same after-methods as above. I like the first-named. In Scotland and the North there are other modes of culture. I have sown seed in early September on a well-drained border for early spring planting, with excellent results, and in such a case a much longer period of growth is secured. Others sow very thinly in prepared land and merely thin out, the plants left forming the earliest supply, those removed the later crop. It is the last-named I will now touch upon, as they constitute one of our best late winter and spring vegetables. For this purpose I am very much in favour of what may be termed the dwarfer type—those with very close, solid Sprouts. For this work I have found that seed sown in the open in February or March, according to the locality, gives the best results; but even then a strong, sturdy plant at the start is an important item. For the culture of this vegetable I place much reliance upon deep culture, ample space between the plants and early planting for the season required, planting good material that grows away freely.

Varieties.—As I have stated earlier, the selection of varieties is now a simple matter, and as regards quality they are all vastly superior to the old imported varieties of years ago. Then the grower had to depend upon what he could get, unless he saved his own seed, and that was not always an easy matter, as the Brassicas so easily cross when in flower. Take such splendid types as Sutton's Exhibition and Matchless; here are two ideal forms of what one may term the early winter Brussels Sprout. Another very fine type, and an immense favourite in the North, is Dobbie's Selected, for its size one of the greatest croppers we have, and also equally good as regards quality and quantity. Each plant is perfect in height and productiveness. Carter's Holborn Exhibition is a great favourite for early use and a wonderful cropper, with superb quality, and free of the loose, useless Sprouts that were so common in the older forms. Another very fine Sprout is Veitch's Exhibition; then there are May's Northaw Prize and Market Favourite for an early supply. For use from Christmas to the spring I would advise the dwarfer forms, and one of the best is doubtless Sutton's Dwarf Gem. This is certainly one of the dwarfest I have grown, and remarkably hardy. Sown in the open very thinly and transplanted when large enough, it gives a wonderful crop of Sprouts, perfect in shape and of very delicate flavour. It can be planted much closer than the earlier forms, and will remain solid till early April. Veitch's Paragon is also valuable for this work very late, not large, and excellent. It is larger than Dwarf Gem, but a most valuable late variety in exposed positions. G. WYTHES.



BROCCOLI CHRISTMAS WHITE AS SHOWN BY MESSRS. SUTTON AND SONS AT VINCENT SQUARE ON JANUARY 3.

A FINE BASKET OF BROCCOLI.

IN more recent years it has been proved beyond a shadow of doubt that vegetables lend themselves to attractive or even artistic arrangement almost as much as flowers or fruit. The accompanying illustration shows delicate and snowy white heads of Broccoli tastefully arranged in a culinary basket. The arrangement is simple and the receptacle quite in keeping with the subject. That vegetables really pay for careful staging is shown more and more each year at leading horticultural exhibitions throughout the country. The Broccoli illustrated is an improved stock of Christmas White, a popular variety that comes in for use during late December and January. As may be clearly seen, the heads are well formed; they are also firm in texture and of first-rate quality. This basket was shown in a collection of vegetables staged by Messrs. Sutton and Sons at the Royal Horticultural Hall early in January.

THE GREENHOUSE.

THE CAPE COWSLIP.

(LACHENALIA PENDULA.)

I AM writing this note on January 5. Ever since December 20 I have been enjoying some eight pots of very fine red Cape Cowslips, or Lachenalias. Why they should have responded to our efforts to make them feel quite at home this year more than in previous ones I cannot say; but the fact remains that they have surpassed themselves and given me an extra amount of pleasure. Fine large spikes, with from ten to fourteen bright brick red flowers, set off by handsome, shiny green leaves, would, I think, appeal to anyone at almost any season of the year; but just at Christmas-time, when we seem to absolutely want a bit of red in our decorations, they are the very thing. Beyond their looks there is so much in their favour that I wonder they have not become a popular bulb. Very reasonable in price, very easy to grow (mine were potted in August and have just been brought quietly along in a cool house free from frost) and very bright and lasting when in flower at a dull part of the year—these are surely no small recommendations. JOSEPH JACOB.

SHRUBBY VERONICAS IN THE GREENHOUSE.

WITHIN the last few years many improved forms of the shrubby Veronicas have been introduced, and they are now gradually taking their proper place as pretty flowering subjects for the greenhouse during the autumn months. According to the position they are required to occupy, they may be grown as good-sized bushes or as neat flowering examples in pots 5 inches in diameter. To obtain these last, the cuttings should be rooted in early spring, potted off singly as soon as growing freely, and when the roots have taken possession of the new soil, the tops of the plants must be pinched out in order to lay the foundation of a bushy specimen. Throughout the summer they may be grown out of doors, and by autumn will have formed little bushes full of flower.

The cuttings are not at all difficult to root if made from the growing points of the shoots, dibbled into pots of sandy soil and placed in a close propagating-case. Some prefer to plant their Veronicas out of doors during the summer months; but they are

more useful when grown altogether in pots, as the flowering season is longer and they form much neater specimens. Standard plants of all kinds are just now very popular; but to me a standard specimen of Veronica is much less pleasing than a well-balanced bush. In referring to Veronicas as greenhouse plants, I do not, of course, intend these remarks to apply to the extreme West of the country or to other especially favoured spots where they pass the winter out of doors. Under these conditions they are justly valued for their display in the open ground.

Among the best varieties are: Attraction, deep violet; Andersonii variegata, prettily variegated foliage, pale blue flowers; Conquete, pale lavender; Crimson King, bright crimson; Diamant, rich crimson, very compact habit; Eveline, salmon pink; Gabrielle, rose pink; La Seduisante, violet purple, bronzy foliage; Mauvena, lilac mauve; Mont Blanc, a very fine white; Norma, bright blue flowers, clusters small, but borne in great confusion; splendens, rich purplish mauve; and Valiere, deep blue, very robust growth. H. P.

CLEMATIS INDIVISA LOBATA.

THIS is a Clematis that must not be treated as a hardy plant in this country; but it does not require a strong heat to cultivate the plant to perfection. A warm greenhouse is a suitable structure in which to grow it. As the majority of the owners of greenhouses like to have some nice climbing plants in them, they cannot do better than make use of the above-named Clematis. It is an evergreen variety, with beautiful glossy leaves, somewhat resembling those of the Lapageria, but not as large nor quite as stout in texture. The flowers may be likened to those of a white Anemone, and they are very freely produced. Thus we have a rapid-growing plant which retains its leaves all the year round and flowers profusely from the early spring months until the beginning of summer.

In order to obtain the best possible results from this Clematis, the shoots should be trained on wires under the roof glass, preferably directly above the path; then its leaves will not unduly obstruct the sunshine from other kinds of plants growing on the stages. I shall not readily forget a giant specimen that I once had charge of, among other greenhouse subjects, in the North of England. Its branches clothed a rather wide trellis the whole length of a very large house, and formed a striking object for the visitor to look at immediately he entered the structure.

As previously stated, Clematises make rapid growth, and in nearly all cases where this happens root-action is in proportion. The compost must be good, of such a nature that roots will freely permeate it, and at the same time be substantial and lasting. Fibrous loam, two-thirds, leaf-soil, one-third, and one peck of grit to five pecks of the compost, as above, will be quite suitable. If possible, grow the plants in a border, and not in tubs or pots. AVON.

THE SHAMROCK PEA UNDER GLASS.

THE considerable number of people who have small unheated greenhouses in their gardens, which they find difficult to fill with suitable subjects, are reminded of the value for this purpose of the Shamrock Pea, Parochetus communis, which, although hardy in mild districts, is not to be depended upon in the majority of gardens when in the open. It is, however, just the subject for hanging baskets in the cold greenhouse. The writer's attention was drawn to it for this purpose by its mention in "The Unheated Greenhouse," one of the volumes of "The *Country Life* Library." S. A.

THE FLOWER GARDEN.

PHLOX SUBULATA IN WALES.

THE plant of Phlox subulata shown in the illustration was put in two years ago. No bed and no preparations were made for it; it was simply turned out of a 2½-inch pot and wedged in with tightly packed sandy loam between two stones, the top stones of a 3-foot dry wall, a two-stone broad wall which acted as a boundary between a terraced bed and a flight of steps. The situation was very exposed, the windiest spot in a wind-swept garden. The only attention it had was a slight cutting back after flowering and an occasional soaking of water in dry weather. This Phlox, also G. F. Wilson and Stellaria, as well as being splendid wall plants, are equally good grown as an edging to a border, providing small broken stone is worked under the procumbent stems, for it is direct contact with damp ground that this Phlox and its brethren hate.

Abergavenny. E. M. WHITEHEAD.



PHLOX SUBULATA IN A ROCK GARDEN IN WALES.

SWEET PEA CHAT.

IMPORTANT TASKS.—There are some experts who would fain have us believe that all good cultivators purchase their seeds and sow them in the autumn; but this is far from being the case. I dare venture to say that thousands have not yet studied seriously the catalogues or given more than a passing thought to the preparation of the ground. All the same, these are tasks of importance, and the sooner a start is made, the more satisfactory are the results likely to be. Seeds are scarce and, therefore, dear, and the longer the despatch of the order is delayed, the more danger there must be of clearance of the entire stocks in some instances and the advancement of prices in others. As far as the soil is concerned, the earliest action is urged. It is directly beneficial to the plants when they go into soil that has been worked and allowed to lie for a few weeks; its physical condition has improved and its fertility been increased, and the latter, at all events, has cost the cultivator nothing except the effort of early working.

SOIL PREPARATION.—Before a start is made in this process the cultivator must decide whether the plants are to be in parallel lines or in isolated clumps, because the actual digging or trenching must depend upon it. If a small portion, or a large one, for the matter of that, is to be wholly devoted to Sweet Peas, it should be trenched throughout; but if the plants are to be in clumps, the working must be in stations. The practice of cutting and manuring trenches 3 feet wide is wrong from all points of view, and does not conduce to satisfaction either in a wet season or in a dry one. The tyro is strongly advised to avoid it; the experienced grower knows the trouble that may arise from it, and does so. When the preparations are for clumps, the greatest possible diameter should be secured, and in both instances the deeper the cultivation the better. In these days no one hopes to secure the finest Cabbages by scratching the surface of the ground, or the best green Peas by forking over 3 inches of top soil—those are plants that feed us; and if we would have the finest food we must give the plants the finest opportunities for feeding. We do not want to eat Sweet Peas, but we do want the best flowers in the greatest numbers for the longest possible time, and only deep working, with manuring, will give them. No man must rest satisfied until he has moved the utmost depth of soil. If it is only 12 inches, it must all be friable; if it is 4 feet, let the same rule be applied, and, other things being equal, the latter will give the better returns. Speaking of working to the full depth of cultivable soil reminds me of the speaker at the annual meeting of the National Sweet Pea Society who stated that he had 9 feet of magnificent loam. All I can say is that I wish my case were the same, but I do not think that I should bastard trench it to its utmost depth every year. As far as concerns natural manures, the majority of us have to take what we can get, and provided that it is sweet and a sufficiently heavy

dressing is worked perfectly into the subsoil, I do not think that it much matters whether it has come from cows or horses, and I say this notwithstanding the usual recommendations that the former should go into the light lands and the latter into the heavy ones. Poultry and pigeon excreta must be used with the utmost care, as they are highly nitrogenous and concentrated, and night soil, so valuable when judiciously applied, is a real source of danger in the hands of the individual who fails to appreciate its strength. Rather than any risks should be run, I would advise the amateur to rely upon ordinary stable manure until his knowledge of the soil and the properties of the different manures has become complete; then he may venture into the realms of experiment with a prospect of learning from his failures as much as, or more than, he will do from his successes. A. B. ESSEX.

SELF-SOWN PEACH-LEAVED CAMPANULAS.

SOME of our perennial Bellflowers, like the biennial Canterbury Bells, produce seeds very freely and increase rapidly from these when self-sown. It is, therefore, possible to raise in one's garden, with practically no trouble, many very beautiful flowers of the favourite Peach-leaved Campanula (C. persicifolia), which is one of the freest seeders, and one whose seeds germinate in great numbers under natural conditions. In my garden I have many such seedlings annually, the trouble, indeed, being to keep down their numbers where they appear so freely as to be detrimental to other flowers. The illustration shows a fine self-sown seedling with blue flowers, which appeared by the margin of a little path in a rough part of the rock garden. This literally received no attention, and grew and flowered without any assistance whatever. It was a really good form, but not superior to many others of various tints which appeared in other parts. One thing should be observed, however, by those who wish to encourage such seedlings in their gardens, and this is to be careful which plants are allowed to seed. All those which have badly formed, small, or poorly coloured blooms ought to be destroyed, and only those with flowers of superior character permitted to reproduce themselves. If this is neglected, the strain will deteriorate and many poor plants will be found in the garden, with the inevitable result that the standard of beauty will be lowered. In this instance, the fact that the plant flourished among the stones of the rock garden and did so well there points to what I have experienced—that this Bellflower does well in poor soil, although not always so well as in that which is good.

THE SILVERY SAXIFRAGES IN WINTER.

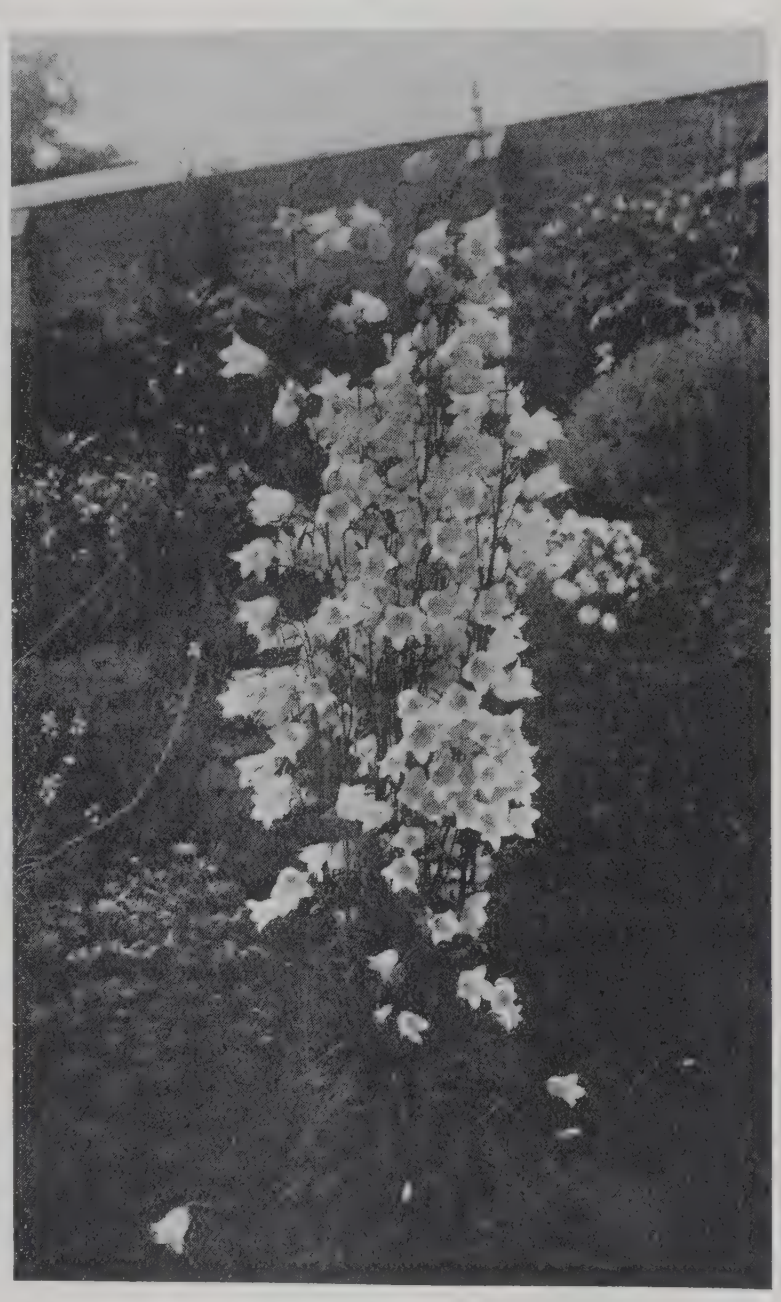
IN dry weather in winter the beauty of the silvery or encrusted Saxifrages is especially noticeable, and it strikes one far more forcibly now because we have few flowers to brighten up the rock garden. Their lovely tones of silver and grey are very fascinating, especially when the plants have grown to some size and make a nice clump among the stones. Then we can study the delicate tracery of some of the species, and we realise more than ever how beautiful are these hardy flowers. The smaller species are especially delightful. S. ARNOTT.

COLOURED PLATE

PLATE 1417.

THREE GOOD PÆONIES.

TO many the beauty of single-flowered Pæonies appeals more than does that of the doubles. The pure gold stamens set off the surrounding tints of the lovely petals to great advantage, particularly in the case of the white, pink and maroon varieties. Nowhere is the dashing beauty of the Pæony more exemplified than in the charming single-flowered varieties. It was Messrs. Kelway and Son who first developed the single-flowered Pæonies, which are now greater favourites even than those with double blossoms. Moreover, their tints are purer, and their outlines, as a rule, more perfect. The flowers lend themselves most admirably to decorative purposes, in size as well as in colour. Those shown in the coloured plate have been reduced to about one-third diameter. The new variety, Pride of Langport, has an extremely large flower, and is one of the most beautiful—of brilliant yet soft pink hue. Dog Rose is certainly well named, for it is just like a glorified Dog Rose, with delicate white petals speckled over with pink. It is indescribably pretty, and also very early flowering. Silver Rose is the name of one which will be sent out in the autumn of this year. It is silvery white, with flushes of softest pink, very large and of beautiful outline.



A SELF-SOWN PLANT OF CAMPANULA PERSICIFOLIA IN A SCOTTISH GARDEN.

THE ROSE GARDEN.

TRANSPLANTING OLD STANDARD OR BUSH ROSES.

PROVIDING the weather keeps open, this work may be carried out now to great advantage, as the trees are as dormant as they will be. I think that, generally speaking, amateurs and gardeners are not fully alive to the advantages of a periodical transplanting of Roses. I do not say we should transplant at stated intervals just for the sake of transplanting, and would certainly not recommend this being done if the trees are flourishing; but there comes a time in the life of many standards and bushes when they appear to be going back, and then it is that such standards or bushes should be given a fresh position or replanted in the old one, in the latter case adding a liberal amount of new soil.

I think I may safely say that a large number of sickly-looking standards are in this condition owing to faulty preparation of the soil in the first place. So many individuals cannot see the necessity of deep cultivation, and to open out holes 2 feet to 3 feet deep and 2 feet wide and long seems an absurd amount of trouble to take over one standard. But if we would have those glorious big-headed standards we used to see years ago, such careful preparation must be given. I am fully aware of the fact that many varieties are grown as standards which are foredoomed to failure; but, happily, the Rose-loving public are becoming more acquainted with the habits of Roses, so that nurserymen will be obliged to stop budding these unsuitable varieties upon standards, as they will not be called for.

If the trees appear to be wanting in vigour, and providing they have not become too weak and stunted, the best plan is to carefully dig them up, then cover the roots with soil for a time, making a trench deep enough so that all the roots are covered. If the trees are to be returned to the same positions, throw out the top soil to a depth of 1 foot and lay this by itself. Now dig out the lower foot or 18 inches and mix with it some good manure and basic slag, this latter about 6oz. to a hole 2 feet each way; then shovel the soil into the hole again. Now take the tree, trim away suckers and remove jagged ends of roots, dip the roots in some thin mud, and the tree is ready for replanting. Take a good strong stake and secure this in position prior to planting, on doing which the standard should be tied to it and its roots placed so that they are no further from the surface than 6 inches or 8 inches. Shovel in the soil, making it firm with the foot, and as far as possible spread out the roots in all directions. After the soil is filled in nearly to the top of the hole, about two handfuls of bone-flour scattered about and then covered with the remainder of the soil will be of great benefit, and the roots will quickly find it. Bushes may be treated in the same way, and if they have long growths, cut all back to about 2 feet.

Later on, at pruning-time, it is well to prune these transplanted Roses fairly hard; but I do not care to do this until I see some of the lower eyes on the move, and for this reason I would defer pruning until April. Ramblers and wall climbers, where

they show signs of exhaustion, cannot well be replanted, but it is possible to remove a lot of the old soil around and beneath the roots and replace this with some good compost. I have seen wall climbers and pergola Roses marvellously rejuvenated by this means.

Bedding Roses especially need replanting every three or four years, overhauling the soil and trimming back the roots at the same time. This, followed by severe pruning in late spring, will give a fresh lease of life to the plants and provide that glorious display we had the first two or three years of their existence. The foregoing remarks are penned with a view to affording help to anyone whose Roses have not been a success lately; but where the bushes or standards are really doing well, leave them alone.

ROSE STOCKS

WHEN one reflects, it is a remarkable stride for a society to add 1,000 new members to its roll in one year, and yet that is the record of the National Rose Society for 1910. It may be asked, What has this to do with Rose stocks? Only this, that there are 1,000 additional Rose-lovers interested in the Rose; and although they may not all possess the desire to become exhibitors, I venture to say a large proportion of the number will be exhibitors in the near future. Now, to the exhibitor the question of stocks is an important one, as quite a number of our best show Roses are good as maidens only. That is to say, the variety must be budded each year. This may seem a big task, but really it is no more so than that undertaken by the exhibitor of Chrysanthemums, Carnations and other flowers, who must needs raise up annually a stock of his favourite flower.

Perhaps if one were to ask the successful winner of the large prizes at our National Rose Show how many of the specimens were from maiden or one year old plants, he would reply "Fully two-thirds," and by reason of these maiden plants flowering later than cut-backs the exhibitor has learned to depend largely upon them.

Exhibitors of Tea Roses would do well to plant a good number of short standard Briars for their favourites. There can be no question that certain sorts come far superior from the standard or half-standard Briar than from the bush plant. For the comfort of those who have not yet planted their stocks, I may say that Briars planted last March are equally as fine with me as those planted before Christmas; indeed, rather than plant in midwinter, when the land is very wet, I prefer to wait until March, for in the meantime, if the Briars have been trimmed ready and heeled in the soil, the rootstock becomes callused over and fibrous roots are assured.

Where the soil has not been trenched for some years, it should be attended to this season for the stocks. By trenching I mean bastard trenched. This allows the lower spit of soil to remain in the bottom, where it soon becomes fertile by the addition of manure and basic slag. A word of caution is needed here. If the land is heavy, do not trench too much at one time; rather carry out the work piecemeal, planting a row of Briars as soon as sufficient is trenched. But for standard or half-standard stocks I much prefer to trench land in early summer and allow it to lie fallow ready for planting the stocks in the following November. Dwarf stocks, such as rooted Briar cuttings, seedling Briars and Manettis, are best planted in February, weather permitting, and the planting may even be carried out until the end of March. In their case plant upon deeply dug and richly manured land. I like to plant dwarf stocks in rows 3 feet apart and about 8 inches or 10 inches asunder in the rows. Standard and half-standard Briars are planted in rows 3 feet to 4 feet apart and about 12 inches in the row. For the exhibitor the cutting Briar and Manetti are indispensable, and for late shows the seedling Briar. The standard and half-standard stocks are ready for budding at the latter part of July, and the dwarf stocks in the first three weeks of August. Thirty kinds of which the amateur should bud a few annually are as follows. Only those marked *m* should be budded on Manetti stock; those marked with an asterisk bud on half-standard or standard stocks: *Bessie Brown, Mildred Grant, Dean Hole, Mrs. W. J. Grant, *m*Lady Ashtown, Kaiserin Augusta Victoria, William Shean, A. K. Williams, Alice Lindsell, Gustave Piganeau, Horace Vernet, Marquise Litta, *m*Suzanne M. Rodocanachi, Mrs. Theodore Roosevelt, White Lady, *m*Charles J. Grahame, *m*Alfred Colomb, *m*Duke of Wellington, *m*Richmond, Papa Lambert, Victor Hugo, *White Maman Cochet, *Mrs. E. Mawley, *Maman Cochet, *Medea, *The Bride, *Muriel Grahame, *Mme. Cusin, *Mme. Constant Soupert and Melanie Soupert. It must not be inferred that all of this list would be useless the second year. Most of the Tea Roses would be serviceable for some years, but they give their best bloom the first year. P.



A HEDGE OF ROSE DOROTHY PERKINS TWO YEARS AFTER PLANTING.

A HEDGE OF ROSE DOROTHY PERKINS.

THE accompanying illustration represents a hedge of this charming wichuraiana Rose in a Gloucestershire garden, and depicts in an unmistakable manner the usefulness of this Rose for such a purpose. When the photograph was taken, the hedge had been planted less than two years, and the result is one of which the owner may well be proud. The hedge is 100 feet long, and eighty-three plants were used in its creation.

ROSES ON HEAVY SOILS.

THERE is little doubt that a fairly stiff soil is better for ordinary Rose culture than one going to either extreme. But we need not despair of good results in almost any class or kind of soil, provided a judicious selection of varieties is planted in the proper way. Just so much as soils and varieties of Roses differ, so should we select and plant if the finest results are to be obtained. The question of stocks also needs considering, both as regards the particular variety of Rose and the soil it is to grow in.

A warm, dry and sandy soil grows the Manetti very rampantly, and only the most vigorous growers can use up the sap produced. But it is upon such a soil alone that I would use the Manetti, because it is considerably more forward in growth than the Briar, and the Rose growth is apt to be caught by frost in any but a dry and favourable situation. On stiff or heavy soils much can be accomplished by raising the beds or borders, somewhat after the style adopted with Asparagus. This raising avoids much of the superfluous moisture found in heavy soils during the winter months, when our Rose roots would be safer if kept more on the dry side. On the other hand, to use raised beds upon naturally well-drained soil is a great strain on the growing plants during a dry season.

A stiff, clayey, or hungry marl soil necessarily needs considerable preparation, but it can be done. Deep trenching, with the addition of chalk and manure—not artificials, as these are of very little service in such a case—will do wonders towards

future success. Nor does it do any harm to turn the whole over a second time, to get it thoroughly incorporated. The second turning also allows of more air getting to the compost from a different point, and this is a great help towards checking the close and heavy condition marly soil so soon returns to. In short, I do not think we can turn over the soil for Rose beds and borders too frequently, more especially if it is not naturally suitable. Much has been argued in favour of what some call a Rose soil, but we find the common hedge Briars thriving in very widely differing soils; in some cases surprisingly so. Therefore I see no reason why, with care and judgment, Roses should not be grown in almost any soils. If at all inclined to be wet, drainage is necessary; but here again so much depends upon the situation and aspect, as heavy soils on a slope will not retain water so much and become stagnant as if in a level and lower position, and it is well to give a little more thought to this than many apparently do. Soils and varieties, also other conditions, vary so much that no hard-and-fast rule can be laid down with safety. When trenching and preparing ground for beds, it is better to lay the soil up in as rough ridges as possible, so that air may get to it and any suspicion of stagnation be avoided, as Roses will not thrive under these conditions, even in the most favourable situations. Exposure to winter frosts greatly improves heavy soils, provided they can be kept fairly dry.

Then there is the important question of suitable manures; this really needs more attention than it gets. One class of manure is not equally good for all soils. If very light, aid by applying heavier and closer-natured manures, giving such as night soil, cow and pig manures. The first need not be offensive if properly prepared. Mix it well with the naturally light soil, or old potting soil answers admirably. Make a heap of the manure and soil and turn it at intervals to get the whole well mixed, for we must not forget that this manure is very strong and retentive. Heavy soils may have well-rotted stable manure, with a good addition of soot.

A. P.

TREES AND SHRUBS.

A SUSSEX HEATH GARDEN.

THE desire to avoid any abrupt transition from trim lawn to rough woodland or park has led to the formation of many beautiful semi-wild gardens. Few plants are more suitable for this purpose than the Heaths, especially where the site is an open one and the soil light and free from lime. There are few days when it is not possible to gather flowers from some of the species and varieties. Their foliage also varies from sombre to vivid green, while golden and copper coloured varieties are brilliant in the spring.

The illustration represents a portion of such a garden formed at Nymans about eight years ago. The soil was a sandy loam, and the site sloped slightly to the south-west. To diversify this and provide sunny banks for tender species, such as Erica australis, and cool, moist hollows for E. ciliaris and Tetralix, some groundwork was necessary. The top spit was carefully retained at the surface, and about 1 inch of sandy leaf-mould was spread over it before planting. Turf was laid to form grassy paths, and a few large stones or small rocks were introduced in prominent positions.



THE HEATH GARDEN AT NYMANS, HANDCROSS, SUSSEX.

The Heaths were planted in October about 18 inches apart. No particular arrangement was followed. Though masses of distinct varieties were planted, their edges were mingled together and patches were avoided. Later we found that such plants as Andromeda japonica, Rhododendron myrtifolium, R. Cunningham's Blush, Rhodora canadensis, Rosa altaica, microphylla and lucida added to the general effect and relieved the otherwise rather monotonous level. Previous experience had taught us that Erica arborea and E. lusitanica might be considered hardy in this locality, but a batch of Erica australis planted in March caused many misgivings on the approach of winter. The slight protection of a few Laurel boughs brought them safely through.

Nymans Gardens, Handcross. J. COMBER.

THE TOWN GARDEN.

HANGING BASKETS.—This is essentially a phase of gardening for town-dwellers, and more particularly for that section who, not having the proverbial yards of ground at their disposal, still delight to have evidences of flowering plants, or even a touch of greenery, in the windows of their homes. Over and over again the Creeping Jenny (Lysimachia Nummularia), or the just as frequent Mother of Thousands (Saxifraga sarmentosa), may be seen dangling in its wire basket in the centre of the window of even the humblest of dwellings. So is it possible in suburban districts a little further removed from the worst influences of smoke and fog to do much more than is often attempted at the present time. It may be, indeed, that the possessors of small front and back gardens, and window-boxes which have to be filled to boot, imagine they are playing their parts sufficiently well by attending to these things, and I am not going to say them nay. But even for these there is room, and doubly so where a greenhouse exists, to give a start to those choicer subjects one has in mind.

THE WEALTH OF MATERIAL.—From the commonplace subjects already mentioned to the margin of that wealth of better material there is, so to speak, a big difference in floral gaiety and effectiveness alone, and this is increased and enhanced as the inner recesses are reached. For example, the trailing Campanulas—fragilis, isophylla, i. alba and i. Mayii—are quite a host in themselves, while tuberous Begonias, Fuchsias and Ivy-leaved Pelargoniums are among other things generally employed for basket-work. During the last few years that fine blue Lobelia tenuior has been constantly exhibited; it is a capital subject to bear in mind. And there are many other good plants worthy of thought. At the present time, however, I would rather direct attention to the securing of early plants of the more suitable kinds, while throwing out a hint here and there as to the best means to employ to secure the finest display at flowering-time.

THE VALUE OF AN EARLY START.—Too frequently the hanging basket is looked upon as a sort of makeshift, something which will do quite well after the ordinary bedding arrangements are completed, when, in common parlance, "we shall see what is left." This much, indeed, is conveyed by many a basket alone, as it more often than not teems with odds and ends, the pieces that have been left over from other work; in other words, it was not catered for at the beginning, hence its makeshift appearance. To-day, however, I wish to direct my readers' attention to the value of including the hanging basket in the original estimate, so that with due preparation and a season of growth before it is wanted in the open it may be able to do itself justice.

STARTING WITH CUTTINGS.—In the case of Ivy-leaved Pelargoniums, Campanulas, Ageratums and Fuchsias it is a good plan to start with cuttings. The autumn cuttings of the first-named, for instance, if now potted off, placing four in a 5-inch pot and growing them on well for a time, will do admirably for the purpose, and three such pots, or twelve plants in all, would be capable of forming a most effective basket when the time arrives for making up. In like manner cuttings of the Campanulas named, Heliotrope and others are capable of making a good floral display in their season if an early start be made, though plants of a year old may, with intelligent care and treatment, provide equally good results. The greater value of the cuttings of some of these plants is that, given the ordinary wire basket, some of the young plants can be threaded through the sides, thereby ensuring a pendent growth and flowering much earlier than would otherwise be the case.

S. N. N.

GARDENING FOR BEGINNERS.

CULTURE OF HARDY PLANTS UNDER GLASS.

MANY novices are deterred from taking up the culture of some of the most beautiful and easily cultivated subjects because they under-rate their own ability, and also because they imagine difficulties that seldom or never arise. In the present instance it is proposed to deal with the following popular plants, viz., Solomon's Seal, Lily of the Valley, Dielytra spectabilis (Bleeding Heart) and the Spiræa. Each of the foregoing may be grown in pots under glass quite successfully by any reader who possesses a warm greenhouse.

The first of these interesting subjects is Solomon's Seal, known to botanists by the name of Polygonatum multiflorum. It is one of the handsomest of our native plants, and its merits as a pot plant have long been appreciated. The crowns may be potted up either in the autumn or early spring. Early potting ensures early flowering, and that is the only advantage of autumn potting. The crowns may be purchased cheaply, but where this subject is growing in the hardy border they may be dug up during the winter at the convenience of the grower. Solomon's Seal is an excellent plant for the conservatory, but it is well to point out that it does much better in a low temperature than in a high one. The Lily of the Valley like-crowns may be grown in any pots 5 inches or more in diameter. It is a mistake to crowd the crowns in the pots, and for this reason I have depicted on the left of Fig. 1 a few crowns potted up in a 5-inch pot and an ideal specimen crown in the front thereof. Any ordinary light soil will answer the requirements of this subject. See that the soil is worked well round the crowns, and subsequently place the pots in a cold frame or under the bench of a cool greenhouse. They will begin to grow in a very short time, after which they will come on rapidly. Those who have the necessary crowns, and also the accommodation, should pot up a number of the strongest in 10-inch pots.

On the right of Fig. 1 there is portrayed about a dozen crowns of Lily of the Valley potted up in a 5-inch pot. Crock the pots carefully to ensure good drainage, and place twelve to fifteen good plump crowns in a 5-inch pot. The crowns should be visible above the surface soil, as shown in the illustration. When the crowns have a somewhat shrivelled appearance, it is a good plan to soak them for an hour or two in tepid water before they are potted up; it is most undesirable to keep crowns out of the soil for any length of time. After potting give a good watering in, subsequently standing the pots in a cold frame on a bed of ashes for a few weeks. Cover the crowns with a good layer of moss, after having spread the latter out on the ground and thoroughly moistened it with boiling water to destroy slugs and insects. Introduce the plants to a gentle heat in the first instance, affording a brisk bottom-heat of about 80° later on. Bottom-heat is absolutely necessary to success. So soon as the buds begin to show the white of the blossoms, the pots should be removed from the bottom-heat and the plants gradually inured to a lower temperature. Tepid water should be used for watering, and on no account must the soil be allowed to get dry.



1.—POTTING UP SOLOMON'S SEAL AND LILY OF THE VALLEY. CROWNS OF THE RESPECTIVE SUBJECTS ARE SHOWN IN THE FOREGROUND.

Fig. 2 represents Spiræa japonica and Dielytra spectabilis, two easily grown subjects, the former on the left and the latter on the right of the picture. Good clumps may be lifted and divided, or they may be purchased from the nurseryman. After potting, place the plants in a cold frame till wanted, or in a cool glass structure if more convenient. The plants may be introduced to heat when required, but if wanted to flower early they must be maintained at about 60° to 65°, with plenty of light. Water, and plenty of it, is a most essential factor in successful culture. When some 5 inches or 6 inches of growth has been made, the pots should be stood in saucers, and these may be kept full of water. Liquid manure should be applied at every second watering. The plants should be turned frequently to keep them shapely. When the plants are stood outdoors in the first instance, it is a good plan to cover the pots with several inches of Cocoanut fibre. Dielytra spectabilis (Bleeding Heart) is a very beautiful plant in the hardy border, but seems to be better appreciated when properly grown under glass in the spring. As a pot plant it is easily managed. Strong roots should be procured from the florist, or, what is better, be lifted from the hardy border. Pot up as advised for Spiræas, preferably utilising 6-inch pots. Place in a cold frame till growth begins to develop freely, subsequent to which transfer to the greenhouse, maintaining a temperature of from 55° to 60°. Apply liquid manure once or twice weekly when flower-buds appear, watering freely when in full growth. At all times avoid strong liquid manure, it is better to give a little and often.



2.—TYPICAL CLUMPS OF SPIRÆA JAPONICA AND DIELYTRA SPECTABILIS. THESE MAY BE POTTED UP NOW.

D. B. CRANE.

A VALUABLE WINTER-FLOWERING PLANT: THE POINSETTIA.

POINSETTIA PULCHERRIMA has scarlet bracts with central scarlet and orange-coloured berries, and as these bracts or flowers are obtainable from November to March, they are very much appreciated. Young plants are raised from cuttings taken from the old specimens in spring. Very often the old plants are thrown away, but I think it is a pity to discard the best of them, as they may be grown for a second year, each specimen bearing several bracts or heads of flowers. When these are faded, keep the plants in a warm house or pit, but withhold water for several weeks. Then syringe the stems daily, and water the soil once each week. In a short time young shoots will grow on the old stems, and they can be selected for propagation in sandy peaty soil in a warm frame. As previously stated, some of the old plants cut partially back will bear a number of young shoots, which may be retained. The original soil must be shaken from the roots, and then the plants should be repotted. In the summer-time both the old and the young specimens should be grown in frames.

B.

PARSNIPS AND CELERY.

OWNERS of small gardens who have not much opportunity of affording their various crops a change of soil every year need not despair of cultivating many kinds in the same position year after year, especially Parsnips and Celery. The writer not only grew these crops annually in the same position, and practically in the same soil, but exhibited the produce so grown, with much success. The position selected for the Parsnips was an open one near the north side of the garden and fully open to the south. The soil was trenched 30 inches deep, every lump being thoroughly broken, and the sub soil below was also forked up. The natural soil was rather clayey, so that the work of trenching was done in the winter, and only the surface portion was left rough and lumpy. Some well-rotted manure was mixed with the loam as the trenching was carried out. Holes were made in due course

with a pointed stick shaped like a fine Parsnip. These holes were about 1 foot apart in the rows, and were filled with sifted sandy loam made firm. Then the seeds were dropped just on the top and covered. In due time the young plants were thinned out singly. The ground for the Celery was broken up and fresh light soil mixed with the original. The Celery was planted on the level ground and earthed-up in due course. It was easy to feed the plants during the summer, and the mixture of sand and sifted ashes placed next to the plants caused the stalks to blanch superbly. A thick surface mulch of manure helped forward the growth of the plants during the hot days of summer. SHAMROCK.

NURSERY NOTES.

MESSRS. JAMES CARTER AND CO.'S NEW WAREHOUSES AND TRIAL-GROUNDS.

AMONG the many excellent seed firms of the present day, that of Messrs. James Carter and Co. occupies a foremost and honourable position, a position which it is only possible to establish by years of unremitting care and toil, together with the setting up of a high standard of quality in the goods supplied, and subsequently seeing that there is not the slightest deviation from this standard. There is a peculiar fascination about the growth of a large business: an indefinable something that appeals strongly to British people, who have been termed, and not without a certain amount of reason, "a nation of shopkeepers."

Carter's of Holborn has been a garden by-word for years past. In our childhood we gloated over the glowing descriptions of their flowers and vegetables as set forth in their artistic catalogues, and it is difficult indeed to realise that the head-quarters of the firm have been moved from Holborn to the more salubrious air of Raynes Park. The cause of the trek was a happy one, viz., the enormous increase of business and the consequent increasing difficulty of dealing with it at the old premises so thoroughly as the heads of the firm demand.

In September, 1909, twenty-five acres of land, with a frontage of over 1,000 feet alongside the London and South Western Railway, was bought and dug two spits deep ready for the crops, and after this plans were prepared for the new building which we were privileged to inspect thoroughly a few days ago. British built by British labour, this massive building will long stand as a testimony to the excellent foresight and judgment of the present heads of the firm. The main building covers just over two acres, and is specially designed for the comfort and convenience of the whole staff, as well as for external and internal beauty. The whole is heated with hot-water pipes and radiators, one mile of 4-inch pipes and forty-eight large radiators being fixed, a large boiler with a capacity of 1,250,000 British Thermal units being used to heat these. In addition there is a smaller boiler for heating the water for the employés' lavatories, which represent the last word in sanitary engineering. The whole is lighted by electricity, and all the machinery is driven by the same power. The main entrance to this building is up two large flights of stone steps, flanked on either side with a massive marble lion, through folding doors of oak and bevelled glass into a marble hall paved with black and white marble, and with a prettily designed marble fountain in the centre. From this hall visitors pass through another set of folding doors to the private and general offices, then to the despatching departments, and subsequently to the large and lofty warehouse and seed-cleaning departments.

The latest and best seed-cleaning machinery has been installed here, and it is a marvellous sight to watch these large machines at work, the seed being fed into them by electric power. In addition to this machine cleaning all the large seeds, such as Peas and Beans, are hand-picked by a large staff of nimble-fingered and keen-eyed girls. The seeds are fed first of all into an easily regulated hopper, whence they pass on to a broad revolving band. As they pass by the operator in steady and orderly array, it is an easy matter to pick out any that are not absolutely good, the perfect seeds falling into a sack fixed beneath the machine. As each sack becomes full, it is taken away to the packeting department and put up into the various sized packets, which are then transferred to the despatching department.

But before any seeds are sent to customers, and, indeed, as soon as they come into the warehouse, each consignment has to be tested, the process being briefly as follows: The samples are first of all examined microscopically, then 300 seeds are taken from each parcel, 100 of which undergo the indoor germination test. This means that the seeds are placed between two thicknesses of damp felt and placed in a heated germinator with a temperature of 60°. The second hundred are planted in pots in frames, and the third hundred in damp fibre in frames. As each trial germinates or sprouts, the growing seeds are counted, and so the growth is ascertained and entered in the "Growth Register." This test being of germination only, another trial is made in the open ground, where the plants are allowed to reach maturity, so that they may be examined under usual garden conditions and checked by the partners. All seeds, whether they are going to the growers or to Messrs. Carter's many customers, are tested in this way, so that the firm know by examining their own trials how the produce of their seeds should be doing in the harvest-field or in customers' gardens. If a question of growth is raised, it can be settled in a moment by referring to the "Indoor Trial Book," the "Pot Trial Book" or the "Fibre Frame Trial Book," each book checking the other and so eliminating any chance of error.

Vegetable and flower seeds are dealt with in enormous quantities by Messrs. Carter, and they have for long made a speciality of preparing golf courses, bowling greens and tennis courts from seed, particulars of which we have not space to deal with just now. Their excellent publication, "The Practical Greenkeeper," is one of the best books on the subject. They were the first to recognise the great nuisance caused by worms in turf, and their worm killer, which they put on the market a few years ago, has become one of the best recognised substances for easily and effectively eradicating these pests. Of course, at this season there is little to be seen in the trial-grounds which surround the building; everything is in a state of preparation for the coming summer, and during the months of June, July, August and September the twenty odd acres should be a blaze of colour. Believing that the public should have the right to see what they are buying and the way in which the business of the firm with which they deal is conducted, Messrs. Carter extend a cordial invitation to anyone to visit their new establishment at Raynes Park, and we have no hesitation in recommending those of our readers who are able to do so to accept the firms' generous invitation.

THE FRUIT GARDEN

HOW TO FORCE STRAWBERRIES IN POTS.

AS the days will soon be lengthening perceptibly and the sun's rays gaining in power, the forcing of plants will become a much more congenial occupation. This work is at all times a pleasant and interesting one, but somewhat trying when all the necessary heat must be obtained from the furnaces. Strawberries forced from now onwards are much more profitable than those plants placed in heat several weeks before Christmas. The following brief hints will be of service to inexperienced cultivators.

In starting the plants they must not be taken direct from the open air or cold frames and placed in a high temperature. It is advisable to make up a hot-bed in a deep frame if one is available and prepare material—leaves and litter, or either alone. Plunge a batch of plants in the hot-bed, a mild heat being the best, and leave them there for about ten days; then raise the pots, leaving them on the top of the material for three or four days, finally taking them to a sunny shelf in a warm greenhouse, newly started Vinery, or Peach-house. The object of plunging the pots in the mild hot-bed is to excite root-action. This accomplished, the plants will soon bear their trusses of flowers.

Before placing the plants in a warm hothouse, turn them out of the pots and see that the drainage holes are quite free, and if there are any earth-worms in the soil, remove them. On some plants small side crowns are to be found: these are quite useless and must be removed, as only the central large crown will bear strong flower-trusses and large fruits.

For several days after the plants have been placed in the warm house very great care must be exercised in regard to the watering. The soil must not be allowed to get at all dry, neither must it be kept in a sodden condition. Maintain it in a medium state of moisture, and the foliage healthy and clean by frequent syringings with tepid water. Syringe the plants every morning at first, and after the flowers are open and the young fruits can be seen plainly, syringe twice each day, and also commence to feed at this stage. Keep a moderately high temperature and moist atmosphere; but when the fruits show colour admit air to them freely and turn all the trusses of fruits towards the sun. B.

TREE SCREENS.

RECENTLY "A TOWN-DWELLER" wrote asking advice as to the best form of tree screen he could have in his garden. That such screens are very needful in towns or their suburbs, where houses overlook one another, and privacy in a garden is in such case quite out of the question, is very natural. But the provision of them of sufficient height to furnish a screen, such as privacy needs, is not an easy matter. Gardens in or near towns are small, and the planting of any kind of tree screen on one side, especially the north of one's garden, means shutting out sunshine from the next garden, which is very unfair and unjust. However desirous to any one resident may be the provision of such screens, it could not be permitted that they should injure a neighbour. Trees that grow very rapidly—for instance, such as Lombardy Poplars—not only send their roots far into an adjoining garden, but if allowed to grow 20 feet in height may in such

case do the next garden grave injury by shading it, apart from the injury done to the soil by the tree roots. Local by-laws should place some limitation on the heights to which tree screens should be permitted to attain when gardens, as is so commonly the case, closely adjoin each other, being separated only by a 4-feet-high fence. A height of 10 feet should be the maximum allowed when any screen is close to the fence on the north side of a garden, and a height of 15 feet may be permitted when it is on the south side, although in such case one's own garden may suffer materially because of the dense shade thrown by the screen. But beyond these considerations comes the question as to how to supply a living screen. The Poplars, being deciduous, give foliage only for a portion of the year. They are out of the question. The very best of tree forms are some of the quick-growing Thuyas, such as gigantea, or of the Cupressuses, such as lawsoniana, and these may be purchased at moderate prices 6 feet in height to start with. Still, to be planted 4 feet apart they may be too expensive for many pockets. Holly makes a fine, dense hedge, but is slow-growing, needing many years' patience before it reaches 10 feet in height. The Broad-leaved Privet, Ligustrum ovalifolium, grows rapidly and soon reaches to a good height, but it is a terrible devourer of food and needs constant root-cutting, also severe shoot-pruning or clipping. But, while commonly described as an evergreen, it is in towns, especially where fogs prevail, notoriously otherwise, as leaves fall rapidly under adverse conditions. Generally, the simplest and best way to form a screen is to erect at once one of lattice-work, supported on stout 10-feet-high posts, with substantial cross pieces, the whole being at the first coated three times with good paint. If the bottoms of the posts have been creosoted previously, they will endure for at least twenty years, and perhaps much longer. Then, on the open side of this screen should be planted, 2 feet apart, strong plants of any good Ivy, such as regneriana dentata, or others, which would cover the lattice-work quickly. In three years the wooden screen might be covered with rich green leafage, evergreen, and always beautiful because so green and glossy. Apart from the prime cost of the wooden screen, that of the Ivy plants would be comparatively small as compared with that of trees. A. D.

A GARDEN OF SWEET SCENTS.

IT is no new idea, that of making a garden where flower and bush of sweet scent only shall be admitted, or where, at least, they shall predominate; but it is worthy of more frequent interpretation. It would be a pleasant thing to know that somewhere in the garden there was a region where nearly everything was not only beautiful, but also fragrant; where, at every step, one would be greeted by some sweet scent—to know that whichever way the wind might blow it would waft some delicious breath of perfume new-distilled. It should be observed that flowers and leaves give off their scent in different ways—one might say, in three different ways. First, there are those that give it off naturally, so that, in passing, it is brought to us by the lightest wind, or even spread abroad in quite still air. This is done by Sweet Briar, Azalea, Cistus, Azara and French Honeysuckle (Lonicera brachypoda) among shrubs, and by Wallflowers, Stocks, Mignonette and Violets among border plants; also by three of the grandest of the Lilies—the pure and stately white Lily, the gold-rayed Lily of Japan and the immense Lilium giganteum. Some lowlier plants must be admitted, for of all the sweet scents of the year that of the dying leaves of the little wild Strawberry is one of the most enjoyable; pungent yet delicate, mysterious, elusive, but wholly delightful. Roses in general give off but little scent in the open air, though a bowl of cut Roses will scent a room; they are, as Bacon says, "fast flowers of their smell." But there is one notable exception in the type Rosa polyantha of the Himalayas, the parent of a number of the modern Rambling Roses. The warm-white flowers, not unlike Bramble flowers and not much larger, are borne in great numbers at the end of the new shoots. Their scent is carried far and wide; as far as that of Lilium auratum and Lilium giganteum, two of the most noted of scent-distributors. Clematis montana, though not usually reckoned among plants of good smell, must be admitted, for when the flowers are just passing their best—when the petals, instead of being quite smooth, show a slightly ridged surface—a scent much like vanilla is given off. Secondly, there are the plants with sweet leaves—some of them have sweet flowers also—that do not give off their scent in the air, but yield it to the touch. Such are Rosemary and Lavender, Bay, Bog-myrtle, Candleberry Gale and Rhododendron myrtifolium among shrubs, Sweet Geranium, Sweet Verbena and Balm of Gilead among tender plants, and a number of the sweet herbs their near relatives—Balm, Marjoram, Thyme, Savory, Sage, Hyssop and variegated Mint. The last is the variegated form of a native plant, Mentha rotundifolia; it is a good old garden plant that is too much neglected. Thirdly, there are all the other sweet flowers that only ask for the slight effort of searching for their sweetness—Roses, Carnations, Pæonies, Heliotrope, Jasmine, Sweet Peas, Lily of the Valley and many others. The names are given only as examples, not as complete lists.

It would be well to arrange the garden of sweet scents as a double border, with a path of turf leading to a summer-house or arbour, which might be covered with Honeysuckle and Jasmine. The path would be of wild Thyme, with, for better wear, a mixture of some of the finer Fescue Grasses with wiry leaves, that mow and roll into a close short turf. The border would be backed by a planting of Sweet Briar and two of the Cistuses, namely, C. laurifolius and C. cyprius, the kind that is usually sold as C. ladaniferus. Next the Grass, the better to be brushed by foot or skirt, would be bush Thyme, Winter Savory, Sage, Lavender Cotton, Catmint and Hyssop. Sage should be oftener used as a plant for border or rock garden. It is one of the best of the grey-foliaged plants, and its bright purple bloom is as good as that of any flower of the same colour that blooms at its time of year. The main planting of the border would be of Roses, Lilies, Pæonies, Lupines, Tulips, Rockets and Daffodils, the sweetest of which are the Poet's Daffodil, single and double, the yellow Campernelle and the Tazettas. Of tender plants there will be Heliotrope in plenty and Sweet Geraniums, and all the sweetest of the annuals, such as Sweet Peas, Mignonette, Sweet Sultan, Night-scented and other Stocks, Wallflowers and the low-growing Alyssum maritimum. Mignonette should be on the sunny side, as the sun brings out the scent. Night-scented Stock (Matthiola bicornis) should be freely sown in empty places, not necessarily at the front, though it is a smallish plant, because it has no special beauty. Its delicious fragrance is only given off when the day is dying and through the night. Nicotiana affinis is another, much larger, plant of the same character, giving off its sweet scent at night, when its flowers expand fully. Lavender and Rosemary must also have a place, and Daphne pontica, so lavish of its sweetness in the early year.

If there is a wall or a wooden fence, there would be the place for the Winter Sweet, that gives its sweet, small blooms in the winter months. Such a garden might be still better done if the place were of the more formal type, with the terminal summer-house of the small temple or pavilion kind. In this case the path would be paved, with here and there an open joint for the planting of the creeping wild Thyme, that is so sweet when trodden underfoot. Or the sweet garden may be on quite free lines, that would give a better opportunity for displaying the larger of the scented shrubs. There might be small groves of Magnolias and Azaleas, of Daphne and Rosemary, and in some places quite narrow pathways or merely slight openings between the shrubs; so narrow that anyone passing must needs brush up against the plants and bushes. Here would be the place for Rosemary and Rhododendron myrtifolium, and especially for Candleberry Gale (Myrica cerifera), whose leaves, crushed or bruised, give off an incomparable scent, such as can hardly be matched by that of any other growing thing. G. JEKYLL, in *Country Life*.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

London garden and outhouse (*C. A. Taylor*).—The wireworm may be cleared out by a good dressing of gas-lime, but the ground would not be available for planting for a couple of months. Frequent forking and hand-picking is about the best remedy for wireworms, which at this season are found much deeper in the soil than at other times. You might also try some of the soil fumigants now advertised, such as Apterite and Vaporite. In other respects the ground should be well trenched and manured throughout. The borders might well be planted with Columbines, single and double Pyrethrums, Gaillardias, Helenium pumilum, H. Riverton Gem and Asters. On the northern border Hepaticas and Christmas Roses could also be planted, while at another season the planting of Daffodils should be borne in mind. For this season also you might plant Sweet Peas in variety, Poppies, Sweet Sultans, Cornflowers, Marigolds, Antirrhinums, annual Pentstemons, early-flowering Chrysanthemums, Candytuft and similar kinds to assist in making a good floral display. It would be quite possible to grow certain Orchids in the greenhouse to which you refer, more particularly Cypripediums in variety (perhaps the most valuable of winter-flowering Orchids), Cœlogyne cristata, Sophronitis grandiflora, Calanthes of sorts, Odontoglossum crispum in variety and many more. We presume you know something of the cultivation of these plants; but if not, you had better obtain the advice of some practical man, who having viewed the place, might save for you his fee a dozen times over in the course of a couple of hours. We cannot recommend the heater you refer to for the purpose,

and advise you to obtain the catalogue of Messrs. Darby and Sons, Western Street, W.C., which contains particulars of useful apparatus for the purpose you have in view.

Perpetual-flowering Carnations (*E. S. L.*).—You will find the varieties Mrs. Burnett and Enchantress good pink Perpetual-flowering Carnations. We should prefer the young September-rooted cuttings for pot-work, but for planting out in spring the older plants would be likely to give better results. Your plants ought to stand in a cold frame. Careless watering and indifferent ventilation are likely to cause more serious injury than frost.

Planting wet ground (*J. W. B., Glendale*).—Liliums and Azalea mollis will require an addition of peat to the soil; all else, such as Cornus, Spiræas, Weigela, Pampas Grass and Sea Buckthorn, would succeed in good garden soil. Should your gravelly clayey marl incline to a tenacious character, it had better be lightened by leaf-soil, or, if possible, by raising the level somewhat. In the shade of the trees you would find Lenten Roses, Hepaticas, Primulas cashmeriana, P. resea, P. japonica, P. Sieboldii, with Anemone robinsoniana, double Poet's Narcissus, Camassia esculenta and other plants do quite well.

Flowers for border (*E. P.*).—Both from your description and the outline you give of the spread of the Ailantus, it is obviously the shade of the latter, and not a little also the effect of its root spread, that are responsible for the poor results of which you now complain. Hardy Ferns, Foxgloves, Evening Primroses, Lenten Roses, Daffodils, Megaseas, Lilies and other shade-loving plants would be very much at home in such a spot. The fact that the Philadelphus and Lythrum are now doing well within the region of the shade, and the Fatsia flourishing outside this boundary, appears to emphasise this. If a semi-wild spot would be agreeable, you might, in addition to the things we have named, plant Wood Hyacinths, London Pride, Crown Imperials and the like for early work within the shade limit, while Sedum spectabile, Aster Amellus, Anemone japonica alba, Oriental Poppies and many other flowering plants would do quite well outside this area.

Pampas Grass (*Hibernia*).—The plants may be suffering from old age. If such is the case, the better plan to adopt would be to dig a trench about the plants at, say, 2½ feet or thereabouts from the centre of the clumps; after removing and discarding the soil, replace it by fresh from other sources. In the operation take note of the root fibres, and if these exhibit signs of decay, work the soil down nearer to the plant, and replenish if sufficient has been removed to reveal root-fibres of greater vitality. A soil mixture of turfy loam with a little manure and some old mortar rubble would do quite well. The trench should be about 18 inches deep and 1 foot in width. The work may be done any time before the end of March ensuing, and you will be able to observe in the summer following whether there is any improvement in the growth. By removing the surface soil a few inches deep right up to the clumps and replenishing this also, the plants may receive more immediate benefit. Should no appreciable improvement follow this treatment, the plants had better be lifted, divided and replanted another year.

THE GREENHOUSE.

A new greenhouse for growing Tomatoes (*Firewood*).—The first thing you should do after the house is quite finished is to trench the borders inside the house all over to the depth of 2½ feet. If the natural soil is of a heavy, clayey nature, then a few cartloads should be taken out, replacing with good turfy loam broken into bits the size of one's fist, adding also to the soil as the trenching proceeds half a barrow-load of rotted manure and half a pint of bone-dust to the square yard of soil. The best way to plant will be in short rows across the border (not lengthwise). The rows should be 15 inches apart, and the plants 12 inches apart in the row. We have grown as many as 20lb. to the plant, but this is exceptional; 10lb. should be a good average. The plants must be trained to grow in single stems. This is done by cutting away all the side shoots which grow out of the main stems while they are quite young. The first week in April would be a good time to plant the borders, as there is then heat from the sun and less fuel is needed. The after-treatment will consist in careful ventilation, bearing in mind that the Tomatoes do not like extremes of heat or cold. The happy medium should be the aim of the grower, say, a temperature of from 60° to 65° Fahr. in the daytime without sun-heat. During the night the temperature may range between 53° and 58°, and should not be allowed to fall below 50°. These figures are only approximate, and are intended as a rough guide to you. Water alternately with clean and manure water. The best manure-water to use is that from a stable or cowyard in a diluted form. If this is not available, scatter thinly over the border some Peruvian Guano, and occasionally, as a change, some soot, watering in as soon as applied.

Treatment for Cypripediums (*Constant Reader*).—We would suggest that you now repot the plant, selecting a receptacle at least two sizes larger than the one in which it is growing. When this is filled with roots a few spikes may appear; if not, we should not hesitate to pot it again, using the same compost as advised in THE GARDEN of December 31, 1910. The Cattleya house will probably suit it better than if cultivated with the smaller-growing Cypripediums. One cultural detail to bear in mind is that they are vigorous subjects which require generous treatment; but when they become large specimens and begin to flower, no repotting will be necessary for about three years. During this time a weak solution of liquid cow-manure once a week will greatly help the plants to produce a quantity of bloom. When once they reach the flowering stage they continue in bloom for quite a long time, and as one flower fades the spikes elongate and another takes its place.

Adiantum fronds turning brown (*Puzzled*).—The leaves sent show that their condition is due to some error in cultivation, but what that may be it is impossible to say definitely. If the paint with which the pipes were coated consisted simply of boiled linseed oil and lamp-black, the plants would not have been injured in any way; but you do not state what substances were used. The fact that the plants did well during the summer, when, presumably, there was no fire-heat employed and more air given, and are now badly affected, would suggest that there must have been some deleterious substance in the paint employed. Excessive damp with the sun shining full on the fronds might also be answerable for some or the whole of the trouble.

ROSE GARDEN.

Roses for wire screen (*J. Jones*).—As you desire varieties of semi-climbing habit that will not grow much taller than 7 feet, you would find the following very suitable: White—Nova Zembla and Alister Stella Gray. This latter is white in its general effect, although its buds are pale yellow. Red—Grüss an Teplitz or François Crousse; pink—Lady Waterlow or Conrad F. Meyer. All of these would grow bushy at the base. If at any time they exceeded the desired height, their growths could be trained out laterally, or, rather, in a fan-like manner, which would conduce to a more abundant blooming.

Pruning Rose Hugh Dickson (*Alexandra Park*).—This splendid Rose is a most vigorous grower, and if given space will form an immense bush or pillar Rose. It is also suitable for clothing a fence up to 7 feet high. It is a pity to prune it too hard, as the long shoots will produce flowers their whole length during the season.

Six best standard Roses (*H. B., Bristol*).—The sorts you mention, namely, Caroline Testout, Frau Karl Druschki, Mme. Abel Chatenay, Hugh Dickson, Grüss an Teplitz and La France, are six first-class varieties; but as your friend would like a yellow or copper-coloured variety, he could not do better than plant William Allen Richardson. This makes a glorious standard if its long growths are slightly bent downward the first year; afterwards they will droop naturally. As you have three pink varieties in your selection, you should omit La France.

FRUIT GARDEN.

Fruit trees and scale (*A Constant Reader*).—Judging by the specimen sent, your fruit trees are very badly attacked by scale insects, to destroy which you should set to work as soon as possible. Various preparations are now used to get rid of these pests, which at one time were kept under by the laborious process of scrubbing the branches with a strong solution of soft soap and water. Now the trees are usually sprayed or syringed while totally dormant with one of the many caustic washes which have proved so effectual. One of the most simple is what is known as the Woburn Winter Wash (A), made according to the following formula: Soft soap, ½lb.; paraffin, 5 pints; caustic soda (98 per cent.), 2lb.; water, 9½ gallons. To prepare this, dissolve the soap in warm water, churn the paraffin into it, and then shake in the caustic soda. One caution to be observed is that this wash is of a caustic nature; therefore it must not be allowed to touch the skin, and only old clothes should be worn. Stout gloves are very essential. One point to bear in mind with the destruction of scale, as well as other insects, is that all fallen leaves and prunings should be at once collected up and burnt, in order to destroy any possible source of infection. Besides the compound named, all horticultural sundriesmen supply preparations of their own that can be depended upon to do their work well, and can be mixed with but little trouble. The Cypripedium sent is C. barbatum.

Apples splitting (*Fruit-grower*).—The Apples have been attacked by the fungus Fusicladium dentriticum, causing Apple scab. This disease has recently been described in our columns.

Apple Wm. Crump (*Amateur, Alexandra Park*).—We think that this new Apple will prove to be one of the very best Christmas dessert varieties we have. It is a cross between Cox's Orange Pippin and Worcester Pearmain. The tree is a good grower and good bearer. It has something of the appearance of Worcester Pearmain, but is larger. The flesh is yellow, like Cox's Orange, and the flavour, like it, is excellent. The raisers were Messrs. Rowe and Co. of Worcester. Mr. William Crump of The Gardens, Madresfield Court, Malvern, Worcester, will, we think, give you all the necessary information about the Apple. We understand that there are some good-sized trees of it on the market.

Old Strawberry plants and Currant trees (*Norah*).—The best thing to do with your old Strawberry plants will be to cut away all runners which may be growing round them, clear away all weeds from between the rows of plants, and then place a dressing of rotten manure on the surface of the soil round the plants to the depth of 2 inches or 3 inches. Keep the ground clear of weeds through the summer, and we hope you will be rewarded with a good crop of fruit. The best way to treat the Currant bushes will be by cutting out any weak or dying branches there may be in the trees, thereby thinning out the middle, so that light and air may circulate freely among the branches. Clear the ground underneath the trees of any weeds or other growth there may be, and then lay a surface dressing of manure over the roots in the same way as recommended in the case of the Strawberries.

Scale infesting Vines (*J. McL.*).—The scale infesting your Vines is Aspidiotus nerri, a difficult pest to get rid of. Your best way to proceed will be by pruning your Vines at once and burning all the prunings and leaves. Then take out all your Palms and other plants, and do not bring them back again at all if you can help it: at any rate, do not bring them back until you are satisfied they are clean. Rub off the loose surface bark of the Vine stems with the hands, taking care not to injure the fruit-buds; then wash your Vines with warm water and soft soap, half a pound in a gallon of water. Let the water be of a temperature of 95° Fahr. This will loosen the hold of the scale on the Vine, when it may be brushed off. Paint the Vines over afterwards with Gishurst Compound, which is still one of the best winter cleansers of trees we have. It can be obtained with instructions how to use from any seed merchants or sundriesmen advertising with us.

MISCELLANEOUS.

Plague of woodlice (*J. D.*).—These pests may be destroyed by mixing some Paris green with sugar and laying it in small heaps where the woodlice abound. Or a very excellent remedy can be procured from Walter Voss and Co., Millwall, London. It is called Phospho Nicotyl. This is now largely used by the leading growers of greenhouse plants, and also for outdoor use. There is no doubt that dry horse-manure will breed these pests. Probably if you spread out the manure thinly on the ground for a time you would find that birds would clear the manure of the woodlice, but as you are so pestered with them we should advise you to refrain from using it for a time. A light dressing of gas-lime would also prove beneficial, but this needs to be used very cautiously, especially when fresh. Rose plants grafted or budded on Briar will last for many years, although some varieties seem to deteriorate after four or five years. In their case it is best to strike them from cuttings. In hot countries there can be no doubt that own-root plants would be best.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE report of the committee and the audited financial statement of the above institution for the past year, which were read and adopted at the annual general meeting held at Simpson's Restaurant, Strand, London, W.C., on the 19th inst., and at which Mr. Harry J. Veitch, V.M.H., presided, are of a most gratifying character, and exemplify in a remarkable manner the splendid work that has been, and is still being, done by this praiseworthy institution. During the past year no less a sum than £4,203 19s. 8d. has been expended in annuities to aged and infirm gardeners or the widows of gardeners. What this means to these old folk only those who are closely in touch with the work of the institution can realise. Through no fault of their own, these unfortunate people, many of whom while they enjoyed good health were in comfortable circumstances, are reduced to a state of actual want, and, as Mr. Harry J. Veitch pointed out, in granting permanent or temporary relief to them the institution was also releasing to some extent their friends or relations, many of whom were also in straitened circumstances.

Since the institution was founded seventy-two years ago, upwards of £132,000 has been distributed in relief, a fact that we may well leave to speak for itself. Each year the income of the institution, which is purely voluntary, happily increases; but there is an even larger increase in the applications for relief, and many deserving cases cannot be granted aid on account of the lack of funds.

In addition to the ordinary funds of the institution, from which permanent annuities are granted, there are the Victorian Era and Good Samaritan Funds, each formed for a distinct and praiseworthy purpose. From the first-named the committee have the power to grant temporary assistance to those candidates who have not been successful at the poll, but who have been subscribers to the institution, and during the year £199 10s. has been distributed. From the latter immediate help is given to deserving cases, whether they have been subscribers or not, and £345 15s. 6d. was granted last year from this fund.

Two permanent annuities have been established in connection with the institution during the year, viz., "The Baron Schröder Annuity" and "The William and David Thompson Memorial Fund." The former was established by the Royal Horticultural Society as a tribute to the memory of the late Baron Schröder, and the latter by subscriptions from the friends of the late David and William Thompson, two Scottish horticulturists of considerable merit.

A new by-law has been formed, under which newly-elected candidates will receive half of their first quarter's pension within a few days of their election, and the other half at the end of the quarter. This by-law has been formed so that elected candidates shall at once receive some relief from the institution. The various auxiliaries of the institution have done splendid work during the past year, those of Reading and Worcester in particular having contributed handsome sums to the fund. Mr. Harry J. Veitch was re-elected hon. treasurer; Mr. G. Ingram, secretary; and the following members, who retired by rotation, were re-elected on the committee: Messrs. F. Cooper, C. R. Fielder, W. Iceton, Arthur W. Paul, W. Robinson, Joseph Rochford, Edward Sherwood, H. E. Tillman and H. Watkins. Messrs. James Walker and John Jaques were elected on the committee in the places of the late Messrs. W. Denning and J. McIndoe. Messrs. E. G. Monro, Percy G. White and Fred Cooper were appointed scrutineers of the ballot, and upon the declaration of the poll the following were found to have been successful:

Arthur Plummer, 4,062 votes; William M. Baillie, 3,162; Susannah Butters, 3,030; Thomas Sutton, 2,943; Thomas C. Gidley, 2,832; George Boothroyde, 2,816; Sarah Chinnery, 2,780; Rebecca Watson, 2,746; Emily Richards, 2,729; John Birch, 2,716; John Gough, 2,656; Fanny Bury, 2,607; John Dallimore, 2,585; Emma Arnold, 2,577; George Bastin, 2,576; Sarah A. Sutton, 2,516; Reuben Cavill, 2,457; Mary Hope, 2,446; William D. Robinson, 2,423; Anne Searing, 2,420.

The committee recommended that two additions should be made to the above list, in order to take the place of recent losses, under Clause 10 of Rule 3. The two additional names included were George Gedge and Henry J. Rosam.

Mr. Arthur Sutton desired to contribute £20 to the most needy and helpless case, and this was voted to David Dunstall. Mr. George Monro contributed £10 to a widow, Marie Baillie.

After the poll was declared it was announced that sixty-five unsigned, and consequently spoilt, papers had been sent in. This meant a loss of 450 votes.

At the friendly supper held in the evening, Mr. Joseph Rochford presided over a good attendance. Short speeches proved to be the order of the evening, and an excellent musical programme was provided.

The chairman announced that Mr. George Monro was unable to attend owing to illness, but he had expressed a desire to commemorate his forty years of business, just completed, by presenting £1 each to forty necessitous but unsuccessful candidates.

In the course of the evening the chairman announced his intention to give £20 towards the Good Samaritan Fund. These two kind offers were received with applause. Mr. Harry J. Veitch responded to the toast, "The Institution: Its Continued Progress and Prosperity." The toast to the committee was proposed by Mr. N. N. Sherwood, to which Mr. W. J. Baker responded.

Having given a brief review of the excellent work that the institution is doing, we appeal most earnestly to our readers to give it some financial support. In the enjoyment of our gardens—than which there is none greater—let us not forget those who have, through illness and other unavoidable causes, fallen on unfortunate times, and who in their more happier days contributed in lesser or greater degree to the beautiful products of the earth that we are now enabled to enjoy. Full particulars concerning subscriptions and the work of the institution will be gladly furnished by the secretary, Mr. G. Ingram, 92, Victoria Street, Westminster.

THE NATIONAL SWEET PEA SOCIETY.

THE unsettled environment which has surrounded the above society in relation to the constitution of its floral committee was to some extent cleared at the special general meeting held at the Hotel Windsor, Victoria Street, Westminster, on Wednesday, the 18th inst. As we stated a few weeks ago, the difficulty arose through an instruction to the general committee that was passed at the annual general meeting, this being to the effect that any member should not be eligible for election on the floral committee as an amateur who was in any way connected with the selling of Sweet Peas. This, of course, prevented some of the best amateur growers in the country from acting on that committee, and the members undoubtedly did the right thing in rescinding that instruction at the special meeting. Mr. H. G. Baker, who was the original proposer of the instruction, moved that it be rescinded, and he also proposed an amendment as follows: "That as there are at present no rules for the formation, composition and conduct of a floral committee, this meeting requests the general committee to draw up rules for such purpose and submit the same to a special general meeting in April, 1911. Such rule when passed by the special meeting shall become operative immediately." This was carried unanimously.

In the past there has been an unwritten rule that the floral committee, which exists for the purpose of judging and making awards to the new varieties sent to be grown at the society's trials, should be elected by the general committee, and that it should consist of six amateurs and six representatives of the seed trade, with an amateur chairman; and it is the status of the amateur members which has caused all the difficulty.

In the meantime the committee invites suggestions for the formation of such proposed rules from all members of the society, these to be sent to the hon. secretary. We would suggest that the words "amateurs" and "trade representatives" be eliminated, and that a given number of the best men be elected by ballot, irrespective of whether they are connected with the seed trade or not. It is the best men that the society wants on such an important committee, and any regulations that debar such men from acting in that capacity are sure, sooner or later, to prove a brake on the work that the society has set out to do.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 31.—Royal Horticultural Society's Exhibition at the Royal Horticultural Hall, Vincent Square, Westminster. Lecture at three o'clock on "Colour Photography," by Mr. W. Marshall.

February 2.—Meeting of the Linnean Society, 8 p.m.

Proposed National Daffodil Society.—There is, we hear, a movement in Daffodil circles with the object of trying to establish a national society, which will do for that flower what similar societies have done for the Rose, the Dahlia and the Sweet Pea. Our informant tells us that many of the most prominent raisers and cultivators have already promised their support, and that in all probability a meeting of all Daffodil lovers will be called on one of the days of the Royal Horticultural Society's Spring Bulb Show in March. We would welcome short letters from readers who are interested in the subject.

Fruits in Covent Garden Market.—At the present time quite a number of interesting fruits are finding their way to this world-famed mart, and the leading dessert Pear is Passe Crassane, a variety that is grown in a few private gardens in this country, but which is not at all well known. The supplies of this variety now on the market come from France, and equal in flavour a well-grown Doyenné du Comice; indeed, it has often been referred to as a winter Doyenné du Comice, though the two are quite dissimilar in appearance. Some very fine examples of free-stone Peaches have arrived from the Cape, the luscious fruit of these being of very high quality. Unfortunately, they are very expensive, as much as 12s. to 15s. per dozen being asked for them wholesale. Moor Park Apricots are also arriving in splendid condition, and these are highly appreciated by the public. Consignments of Nectarines Rivers' Early, and Windsor, and William Pears, as well as Wickson, Satsuma and The Apple Plums, are expected from the same source in the course of a week or two. The last-named Plum is only known to fruiterers in this country, but by them it is regarded as the finest variety which arrives from the Cape. It has rich, dark red flesh, resembling in colour a good Beetroot; is of globular shape and of delicious flavour. The sending of high-class fruit from the Cape to this country has received a great impetus, and enables us at home to have fruits at a season when they would be otherwise unobtainable.

National Chrysanthemum Society.—On Monday evening, the 16th inst., there was a meeting of the executive committee at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. The proceedings were purely formal, and consisted mostly of business to be done preparatory to the holding of the annual general meeting, which will take place at Carr's Restaurant on Monday, February 6, at 7 p.m., when the president, Sir Albert Rollit, is expected to take the chair. Subject to arrangements being satisfactorily concluded with the Receiver for the Crystal Palace Company, the dates of the National Chrysanthemum Society's 1911 shows were provisionally fixed. The accounts for the past year were submitted, and approved of subject to audit. The reading and discussion of the draft report for 1910 were then proceeded with, and finally passed for presentation at the annual meeting. It was resolved, upon the motion of Mr. Ladds, seconded by Mr. Oliver, that a conference be again held, the date and subjects for discussion being left for further consideration.

The difficulties of French gardening.—At a recent meeting of the Sandhurst, Yateley and District Gardeners' Mutual Improvement Association, the chairman (Mr. Austin) called on Mr. L. Dupond of The Nurseries, Crowthorne, to read a paper on "The Difficulties of French Gardening in England." These, he would have his hearers believe, were many. Some of those mentioned by him were the high price of suitable land, the difficulty of getting sufficient manure, the higher price of labour in this country, and the finding of a suitable market for the produce. From his experience of this branch of gardening in France, the lecturer was quite conversant with the subject. A good discussion was well maintained by Messrs. Moyes, Benham, Ruddle, Inwood, Dennis, Goddard and Chapman.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Raising Freesias from seed.—For the last fifteen years I have grown Freesias from seed. I sow it in March in boxes, placing these on the floor of the greenhouse. In April the seedlings are pricked off into frames, where they are allowed to remain. Some years the plants commenced flowering in July, and kept on throwing up new and stronger spikes from the bottom until November. Sometimes they did not flower until the end of September. At last I found out that Freesia hybrida was the early flowering kind and F. refracta the late. The flowers are excellent for all sorts of decoration, especially for the table. I know of hardly anything more sweet and pretty. With the aid of some disheaded pins the spikes may be placed all about the table, just as if they were growing out of the table-cloth. With some Myrsiphyllum sprays spread among them they are very delightful. The plants will make large and branching bulbs, but these, not being ripened, are worthless.—T. S. RUS, *Kvaerkeby, Denmark.*

Nabonnand's Roses.—The supplementary notes on the above from "P." on page 4 have interested me, but most of the varieties have been, or are, still growing here. As regards Paul Nabonnand, I have lost it now. It never thrived with me as I expected after seeing such beautiful examples soon after its introduction. Only to-day (January 17) I purchased a box of blooms that were all one could desire for the price. In the market they are known as "French Nabs," and not as Paul Nabonnand. They have quite taken the place of the boxes of Safrano that used to be in such demand before we forced so many grand varieties in this country. I believe the majority of the blooms are obtained from sheltered spots and walls, where, of course, they last much longer than with us. Albert Stopford and Comtesse Sophy Torby are two more that rather disappointed me. But there are many Roses which do altogether different in certain localities, and quite a list of such rather uncertain varieties might be collected by any grower of quantities. It is news to me that "G." stands for Gilbert. Have we not for many years known it as "G." or Georges Nabonnand? In mentioning offsets from G. Nabonnand "P." expresses the opinion that any sport or seedling from it would be good. Peace is a lemon white sport from it, which our National Rose Society remark "should be more grown." Like G. Nabonnand, it is certainly one of our best late summer Roses, and favours the original in its beautiful and clean foliage.—A. P.

Is spring and summer bedding dying out? — Some weeks ago I was privileged to give a ten minutes' paper before our gardeners' association, and I chose for my subject, "Is Spring and Summer Bedding Dying Out, and, if so, on what Ground has it been Discontinued?" This had reference to our larger gardens rather than the smaller. My contention was, and is, that the tendency nowadays is to level down the beds immediately in front of the mansion, and this, in my estimation, was, and is, detrimental to the beauty and bright appearance of the average mansion. These statements aroused a keen discussion, the chief argument being that it saved considerable labour and time; otherwise I hardly know which had the best of the argument. Is it worth asking through the columns of THE GARDEN what the opinion of other readers is on this subject? Of course, the matter only refers to private establishments.—A. CRANSTONE.

Datura (Brugmansia arborea). — This plant perhaps is seen at its best in a Madeira garden. Unfortunately, it is not a plant for the small greenhouse; its branches demand much space, and when seen in plant-houses it is ofttimes the prey of red spider or scale. But, indoors or out, when well grown it is a most beautiful plant, its long trumpet flowers emitting a most delightful scent. For several years in succession we have planted one in a very sheltered place in the garden. At planting-time a hole 3 feet deep and the same in width is dug out for its reception and filled with half loam and half rotten cow-manure. After planting, a basin is made round it for watering purposes in dry weather, after which it is mulched with cow-manure. It always pays to feed this plant liberally, and it will lift its flowers toward evening and prove to be the most charming plant of the garden. Before frost appears lift the plant, put it in a pot or tub, and store in a cool glass house. Keep it dry during the winter months. The growths should be shortened back to where the leading branches originate. Old plants flower far more freely than younger ones. Towards spring prepare the plant again for planting out in June.—W. D. POPE, *Wareham.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

EUPHORBIA PULCHERRIMA.—These are now passing out of flower and will require a period of rest. Water must be gradually withheld. The plants may eventually be placed on their sides under a stage in a house having a minimum temperature of 50°, where they can remain till they are required to throw cuttings for next season's plants. E. jacquiniæflora will require similar treatment to the above.

Hydrangea hortensis.—Cut away all weak and useless wood, leaving only those shoots which are likely to flower. Plants in large pots may be divided and repotted if it is desirable to increase the stock. Smaller plants may also be given a shift into larger pots if necessary. The cuttings which were rooted last autumn must be potted into 5-inch or 6-inch pots. They require a rich compost. A batch of these may be started into growth at once, and if others are started at suitable intervals they may be had in flower during the whole of the summer and early autumn.

Mignonette.—These must be given occasional manurial stimulants when the flowers appear, and kept growing near to the glass in a cool house. Place neat stakes to the plants as they require it and make further sowings for succession.

Fuchsia.—Old plants which have been at rest should be pruned, cleaned and placed in gentle warmth. Repot them when growth has commenced and syringe daily. Pot on young plants when they are well rooted, and attend to the shaping of them by stopping the young growths when they require it.

FRUIT GARDEN.

Outdoor Peaches and Nectarines.—The pruning and training of these must be no longer delayed. To keep the trees shapely and full of young fruiting wood it is necessary to cut out as many old branches as can be spared. It is bad practice to overcrowd the young fruiting wood; this will tend to gradually weaken the constitution of the trees, and is also the cause of unripened wood in the autumn. Lightly fork up the alleys as soon as the training is finished.

Melons.—Sow a batch of these in 3-inch pots in fine, light soil and place the pots on a hot-bed in a warm house. Prepare a hot-bed and place a good bed of soil on it for planting when ready. The Melon requires a rich loamy soil with a good sprinkling of old mortar rubble mixed with it. No manures or stimulants of any kind are necessary till the crop is swelling; they must, however, be liberally fed after this period. Ripe fruits may be expected within twelve or fourteen weeks from the time of sowing.

Cucumbers.—These may be treated as advised for Melons, except that the soil must be thoroughly warmed through, and should be moist, but not too wet, at the time of sowing. Grow the plants in a minimum temperature of 70° in a moist atmosphere, and syringe them twice daily during fine weather. The houses, both for Melons and Cucumbers, must be thoroughly cleansed and the walls limewashed before the young plants are put out.

Tomatoes.—The plants which were raised from seed last autumn will soon be ready for their fruiting pots. Prepare a fairly rich compost consisting of fibrous loam, wood-ashes, old mortar rubble and a little crushed bone. Let this stand for a few days to get thoroughly warmed through. Pot the plants firmly and place them near to the glass in a minimum temperature of 60°.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

SOWING SEEDS.—Many of the seeds of half-hardy annuals may now be sown, such as Antirrhinums, Dianthus, Delphiniums, Scabious and Begonias. By commencing early these can be hardened off before the rush of other things takes place. They should be sown in pots, pans or boxes, placing some of the rougher soil over the drainage, then filling with light, sandy soil, making all quite firm and level. The smaller seeds require no soil covering whatever. They should be covered with sheets of glass and placed in a moist atmosphere where shade can be given if necessary. Many of the seeds will germinate without further attention to watering; but if water should be required, it must not be given overhead, but allowed to soak up through the bottom of the receptacle by immersing it in a pail or tub of water.

Antirrhinums have recently come prominently to the front as bedding plants, and many fine shades can now be had fairly true from seed. It is advisable to raise some from cuttings; these will be found to flower earlier than seedlings, besides having a more uniform appearance. If cuttings were put in during autumn they will now be rooted and showing signs of activity, and should on a fine day be examined along with Pentstemons, Violas, &c., in the cold frames, and the points of the shoots pinched out. All other occupants of the unheated frames should be gone over on the first favourable opportunity, and dead or mouldy leaves removed, giving air on fine days.

Bedding Pelargoniums.—If the stock is low, cuttings should be put in now, taking the tops from the stronger autumn-rooted cuttings or from old stools. They should be inserted singly in small pots, taking care not to bruise the cutting with the fingers (a frequent cause of failure); neither should they be pressed too firmly in the soil. Stand them on the bed of a Melon-house or other structure where they will get a fair amount of light and where they will soon take root, after which they may be removed to a lower temperature.

Chrysanthemums.—Cuttings from the stools of early-flowering Chrysanthemums should be put in now as soon as they can be procured. Some varieties are slow to produce cuttings, and, where this is found, the stools should be put in a little warmth to induce earlier growth. I still adhere to the plan of taking cuttings from the open ground in autumn and keeping them quite cool all through the winter. Well-established plants can thus be secured for planting out early in the season. A few of the hardier free-flowering varieties may be left in their summer quarters to flower a second year, and unless the winter has been very severe, these will provide a more abundant supply of flower than can be obtained from young plants. Good strains of both single and double Chrysanthemums can now be obtained from seed, and although not yet offered in separate colours, can be relied on to flower in August and September, either when planted out of doors or grown in pots. The seeds should be sown in January in heat and pricked out as soon as ready, afterwards treating them in the same way as plants grown from cuttings. Cuttings of late-flowering varieties for exhibition will be mostly rooted by this time, but those intended for decoration only can be put in now. That fine old variety Source d'Or in its various shades of colour is still hard to beat as a cut flower for decoration. Where quantities are required, the cuttings may be inserted in boxes filled with a mixture of loam, leaf-mould and sand. THOMAS WILSON.

(Gardener to the Earl of Strathmore)

Glamis Castle.

THE KITCHEN GARDEN.

VEGETABLE NOTES.

SPRING CABBAGES.—There is little doubt that all owners of gardens are eagerly looking forward to the time when they can have the first cooking of Cabbages. Green Peas are most palatable and we all appreciate Asparagus; but it is more than probable that the most highly esteemed dish of vegetables is the first Cabbage of the year. The early part of last autumn was rather too open for solid, hardy progress; but in November we had frosts of sufficient severity to check the tendency towards over-exuberance, which spells "proud" plants that have not the power to withstand the vagaries of our climate. It is good to know that there are many beautiful quarters of plants in perfect health and condition, and, should the weather during the first half of February prove fairly mild and open, the hoe should be run through the surface of the soil, not cutting deeply, at frequent intervals; and if it is deemed necessary to encourage advance, a dressing of nitrate of soda at the rate of 1oz. to the square yard ought to be given.

RHUBARB PLANTATIONS.—Why the average amateur should so consistently neglect the Rhubarb bed is a mystery, but the fact remains that he does so. It seems that he plants the stools and then looks for nothing else except returns. But this is unreasonable, as those who adopt other methods have proved to the point of demonstration. Rhubarb is as fully entitled to proper attention as any other crop grown in the garden, and it is only when this is accorded that the most gratifying results are achieved. At the outset it is impossible to cultivate too deeply or, within reason, manure too generously; but this will not suffice to maintain the bed in perfect condition for a generation. Each year cleansing and manuring should be carried out, and about every three or four years all stools should be lifted, divided and replanted after the soil has been restored to its full fertility. Then we shall not only have grand produce, but there will always be clumps for forcing as required.

BIG ONIONS.—Whether we call ourselves professional, amateur or cottage gardeners, we all aspire to the production of big Onions. They may not have the general utility of the small, hard bulb grown in the usual manner, but still we want them and intend to have them if it is within the bounds of possibility. The task is not an easy one, since it involves time, patience and skill. In the first place, it is imperative that the seed stock shall be good; but this is not a serious matter, for we can go to any of the leading firms who advertise in THE GARDEN and be sure that, as far as the strain is concerned, we are on the right road. Then we must sow thinly in boxes of rich soil. In some instances ordinary cutting-boxes are utilised, but they are nearly always too shallow; it is wiser to have a strong box at least 9 inches deep, and to fill it to within an inch or 2 inches of the edge with a soil mixture of sound loam and manure, with sharp sand to ensure porosity. The seeds should be set on a firm, level base, and allowed a distance of 2 inches—3 inches will be even better—in all directions. If the structure is pleasantly warm and the soil is kept moist, germination will soon commence, and no efforts must be spared to ensure strong, steady, incessant progress. It is well known that all seedlings resent checks; but as a rule excellent after-management will compensate for a slight early error. With Onions this is not the case, and those who desire real monsters must never permit the plants to stop growing from the time they first show through the surface of the soil in the boxes. They should not be put into their permanent positions until April, but the seeds should be sown by the middle of February.

EARLY PEAS.—Those who are the fortunate possessors of a border of warm, light soil should endeavour to get in a sowing of early Peas within the next fourteen days. Of course, when the ground is wet or frozen nothing can be done in the direction indicated; but when the soil is movable and a good tilth can be secured, the seeds should be sown. The base of the drill must be firm and level to encourage germination and subsequent progress, and it is invariably wise to completely envelop the seeds in red lead as a deterrent to mice, which will attack them if they get the opportunity.

H. J.



A DISH OF ONION RECORD SHOWN BY MRS. DENISON OF BERKHAMSTED AT A RECENT MEETING OF THE ROYAL HORTICULTURAL SOCIETY

THE EARLY CAULIFLOWERS.

FEW vegetables are more appreciated in May and June than the early Cauliflowers, and as there are now some very fine early forms to select from, I would point out their value if sown during the next few weeks for an early supply. One of the first introductions of the earliest Cauliflowers of the dwarf type was Dean's Snowball, and since the advent of the variety named there have been some splendid new dwarf forms, such as First Crop, Extra Early Forcing, Forerunner, Earliest of All and others. Any of these sown in January and February and given good culture may be had fit for table in about three months from sowing the seed. This is a great gain to most growers, as formerly the plants of the older forms were often little less than a year in maturing, and there were great losses by severe weather; also the plants in a mild winter bolted, and the heads left for a short time became coarse and almost useless. The great impetus the Cauliflower has received of late years has mostly been caused by these quick-growing delicate varieties and the splendid heads seen in collections at shows, also, I may add, by the utility of the small, pure white heads, which are delicious. When cooked they are of much better flavour, and this in a great measure is secured by their quick growth. Their dwarf, compact habit, with very few outer leaves, makes them most valuable for forcing at this season and planting out when large enough in rich soil.

G. WYTHES.

LATE SAVOY CABBAGES.

THE Savoys grown for use from August to Christmas are, I think, of less value from a private grower's point of view than the ones in use now and those that keep well into March or even later in the North. One of the best late kinds I have this season is New Year. This excellent late variety was well staged on the 3rd inst. at the meeting of the Royal Horticultural Society, and there are few better for use at the season named. As regards flavour, the Savoy now is vastly superior to the earlier ones. The flavour is milder, not unlike a good spring Cabbage, whereas often in a warm autumn it is strong, and much disliked on that account. In Scotland the New Year Savoy is extensively grown for its hardiness. In this respect it differs from others, such as the large Drumhead. The last-named, when full grown, in severe weather splits, whereas the New Year, if not grown too large, is free from this evil. This points to the value of late sowing for use at this time of the year. For that purpose I would advise sowing in April or May, according to the locality, North or South; also to plant on land not given fresh manure. Ours invariably follow the early Potatoes, and do well. If sown too early the heads are inclined to get large. A medium-sized head is much the best, both for keeping and cooking.

W. B. H.

A FINE DISH OF ONIONS.

THE five Onions shown in the accompanying illustration turned the scale at 3lb. each, and the bulbs have an average circumference of 18 inches. This is probably the heaviest variety in cultivation, and it has been appropriately named the Record Onion. Each year the Record Onion meets with increased favour both for exhibition and garden use. Our illustration represents a selected dish from a collection of Onions staged before the Royal Horticultural Society early this year by Mr. A. G. Gentle, gardener to Mrs. Denison, Berkhamsted, Herts. The collection was a very extensive one, and gained the society's silver Knightian medal. Mr. Gentle has on several occasions during recent years staged some remarkably good exhibits of vegetables and may be classed among the best growers of the present day.

As will be seen elsewhere on this page, it is necessary, to secure these large bulbs, to sow the seed under glass early in the year, the present being a good time to carry out this initial work. Another variety which has been grown very extensively for some years is Ailsa Craig; but some of our best growers are now using Record in preference to it. This latter variety came out well in the National Vegetable Society's trials of Onions that were held last year.

THE GREENHOUSE.

THE CULTIVATION OF GLOXINIAS.

THERE are, indeed, few flowering plants which produce so grand a display of colour as a group of well-grown Gloxinias. It is a well-known fact that seed can be sown early in the year, and with the exercise of care and attention plants can be had in bloom in 4½-inch pots the same season. But this system requires more heat, and possibly more attention, than many amateurs can devote to the interests of any one particular class of plants during the early part of the year. Under such circumstances a start may be made early in April, when more favourable weather may be expected. Procure a well-drained shallow pan or box and fill, not quite to the top, with a fine compost, the greater portion consisting of leaf-soil and sand. Make a smooth surface, and on it sow the seed evenly and not too thick. Do not cover the seed with soil of any sort; simply cover the pan with a piece of slate to conserve moisture. The seeds also germinate better in darkness. Place the pan at the warmest end of the greenhouse, and keep nicely moistened until germination takes place, when great care will be necessary to prevent damping off. As the young seedlings develop, gradually expose them to light, taking care to shade from direct sunlight. As soon as large enough to handle they should be pricked off into boxes or pans, which must be well drained. This is rather a tedious operation. The boxes may be filled with a compost similar to that used for seed-sowing. A great depth of soil will not be required, but care must be taken that the drainage is good. Great care will still be required in shading and keeping the seedlings in a warm and moist temperature. When the foliage of one plant touches that of another a shift will be necessary before the growing season is ended, the object being not so much flowering plants as good, strong tubers for another season. I would advise that rather shallow boxes be used, which, again, must be well drained, though a greater depth of soil will be necessary than heretofore.

The compost should now consist of equal parts of loam, leaf-soil and peat, to which should be added a good sprinkling of sand and a small portion of charcoal. A few flowers will develop which will give some idea as to the form and colours, though certainly not of the quality and size, that may be expected the following year. Keep them growing in a fairly moist and warm temperature, shading lightly from bright sunshine. As the foliage shows signs of maturity less moisture will be necessary, gradually withholding water as the leaves decay. When thoroughly dried off the tubers may be shaken out and stored through the winter in dry sand in a smaller box, taking care to place them beyond the reach of frost and damp. At the return of spring the tubers will show signs of activity, when they can be placed, not too close together, in a shallow box filled with Cocoanut fibre, the top of the tuber being only slightly covered. Place the box in a warm house. An occasional dewing with the syringe, using warm rain-water, will be beneficial. When the leaves expand and before they touch each other, preparation must be made for their potting, using 4-inch, 5-inch or 6-inch pots, according to the size and strength of the tuber.

In potting keep the tubers sufficiently deep, not covering the crown or potting too hard. Keep as close to the glass as convenient to prevent them becoming drawn, and keep the house as moist as circumstances will permit. Great care must be exercised not to over-water until the soil is filled with roots, when a little warm manure-water, Clay's or other approved fertiliser may be given, discontinuing it as the flowers show colour. Less atmospheric moisture will then be advisable. Ventilate freely during fine weather. In all stages of growth shade from direct sunlight, and aim at a temperature of not less than 65°; on bright days 85° will not be too high. W. H. WILSON.

Moor Hall Gardens, Stourport.

NERINE FOTHERGILLII MAJOR.

ONE of the most brilliant features of a meeting of the Royal Horticultural Society held last autumn was a group of this South African Amaryllid, contributed by Messrs. Veitch of Chelsea. Each pot carried several spikes or heads of blossoms, the number of the whole being about 150. All the Nerines are very beautiful, but the dazzling scarlet of this entitles it, I think, to premier position, other points in its favour being its freedom of flowering and good constitution. This particular form is by botanists included under the head of curvifolia, but it is more generally grown as N. Fothergillii major. The "Dictionary of Gardening" gives the date of its introduction as 1788, so that it is by no means a new plant. For all this, it is not often seen in gardens. Its cultural requirements are not exacting, yet, at the same time, a few items need to be rigidly adhered to. In the first place, it resents being disturbed at the roots, and flowers best when several bulbs are closely packed together. Owing to this the soil should be of a good, lasting nature, such as will keep sweet for years. Good fibrous yellow loam and sand should form the staple portion of the compost. Thorough drainage, too, is essential. Next, it must be borne in mind that directly after the flowers are over the leaves are pushed up, and the plant makes its growth through the winter and early spring, so that throughout this period a light position in the greenhouse must be assigned it. For the production of a liberal display of blossoms it is very necessary that the bulbs have a good roasting during the summer when dormant. As an illustration I may refer to the particular specimens shown, for during a visit to Messrs. Veitch's nursery at Feltham on August 8 last I noted them all standing in a frame with the lights on to prevent any rain reaching them, yet tilted to admit plenty of air, and fully exposed to the sun. Under these conditions, to which they had been subjected without any water for about two months, the soil was, as may be imagined, absolutely parched, yet even then two or three of the earliest spikes were beginning to show. H. P.



THE RARE TRANSVAAL TULIP, ANDROCYMBIUM MELANTHIOIDES.

FLOWER GARDEN

THE TRANSVAAL TULIP.

(ANDROCYMBIUM MELANTHIOIDES.)

THIS interesting member of the Lily family is a native of South Africa, where its habitat extends through the central region of Cape Colony, Natal, Transvaal and Rhodesia to Nyassaland. It was formerly in cultivation in the year 1823, but seems to have been lost until its recent reintroduction by Mr. W. E. Gumbleton, who received bulbs of it from Barberton in the Transvaal. There it is known as the Transvaal Tulip, on account of the large bracts, which form the most attractive feature in this plant. The bulb is like that of a very small Tulip, from which the slender stem is developed. The lower leaves are long and narrow, the upper ones decreasing in length. At the top of the stem are several broad bracts, the uppermost being quite white with longitudinal green veins, and sometimes 3½ inches long and 2 inches wide. These bracts form an involucre for the bunches of small flowers, which are produced in the axils. The illustration is from a photograph of a plant which flowered in a cool house in July; but it remains in an attractive condition for two or three months. It is not hardy, but requires cool house treatment, although it is possible that it might be grown outside in the warmer parts of this country. The bulbs grow well in sandy loam, and should be well ripened off after the growth has finished for the season. Water should not be applied again till the bulbs commence to grow. W. I.

AQUILEGIAS OR COLUMBINES.

AQUILEGIAS arrange themselves naturally into two groups, those that are tall being generally good growers and tolerably easy to cultivate, while the dwarf kinds are not so easily accommodated, although in this group is to be found beauty of the most sumptuous kind. I have never found it profitable to struggle with decrepit plants of Aquilegia, as seedlings are easy to produce and form the most promising material from which to expect flowers, while with species like alpina, cærulea and glandulosa it is simply wasting time in the effort to coax wasted specimens back to strength.

The best time to sow seed is immediately it is ripe; but when it has to be purchased from the trade, February is a suitable month in which to start. Boxes or pans should be well drained and filled with a light compost of loam, leaf-soil and sand, scattering the seed thinly on the surface and covering it with its own depth of fine soil. The seed often germinates at irregular intervals. As soon as the seedlings are large enough to handle, prick off into boxes of fresh soil and gradually harden them off. The species already named, including the hybrid Stuartii, are best when grown on the rock garden. Choose a position lightly shaded by a boulder or by some dwarf shrub, and give them a special soil in the form of loam, leaf-soil and well-rotted manure, mixed together. Plant in colonies of a kind about 8 inches to 9 inches apart. The effect these species produce when in flower is altogether different from the more familiar garden types, and one not readily forgotten, while grouped in this manner they are more readily accessible to protecting agents, as in the open garden one always requires to maintain vigilance over these treasures from depredations by slugs.

With the more robust species and long-spurred garden hybrids, any good garden soil that is well dug and enriched with manure and leaf-soil will give excellent results. They also succeed in positions fully open to the sun; but some slight shade is desirable, as the individual flowers last longer and the season is also considerably prolonged. To maintain Aquilegias in their maximum vigour, it is advisable to raise a few plants from seed every year, either for the purpose of reinvigorating existing beds or to form new plantings, and even old plants are benefited by lifting every second year, digging and manuring the ground previous to replanting.

All the Columbines, but particularly the dwarf kinds, are admirable subjects to grow in pots. They should not, however, be subjected to artificial heat, but allowed to slowly develop with the protection of a cold frame or cool greenhouse. Under these conditions the delicate colours of the flowers are appreciated to the full, while their arrangement and form acquire a new interest. The season is thereby prolonged, and often the success of pot-grown plants with those that are difficult is in curious contrast to our baffled efforts with them in the open garden. THOMAS SMITH.

A HANDSOME SNOWDROP.

(GALANTHUS PERFECTION.)

SOME ten or eleven years ago, the late Mr. James Allen sent me a bulb of his hybrid Snowdrop called Perfection, which he described as one of the finest he had, and which he had therefore named as above. It has done well with me, and the group represented in the photograph is the progeny of the single bulb, which has, I think, only once been disturbed during the ten years. It is a handsome Snowdrop with bold foliage and very large and beautiful flowers, although the cup-shaped blooms are not usual among the varieties of this flower. Yet there can be no two opinions as to its beauty, and in my collection there is no Snowdrop which is finer than Perfection. I have no record of the parentage, but I am inclined to think that Elwesii had a share in its origin, the flower partaking of its character so far as regards form, although the general character approaches nivalis. Much yet remains to be done in furthering the progress of the Snowdrop, and it is not too much to anticipate the introduction of seedlings with even higher attributes than those of the fine one here figured. There is no difficulty in raising Snowdrops from seeds, and a little judgment in hybridising the different species and in the selection of seedlings will be certain to give results which would add to the beauty of the garden. Time and patience to wait for the blooming of the young plants are required; but annual sowings would soon give zest to this work by producing flowering plants in four or five years, with increasing additions to the variety of form and habit such as those gained by the late Mr. Allen and other raisers. S. ARNOTT.



AN INTERESTING HYBRID SNOWDROP: PERFECTION.

NOTES FROM IRELAND.

WE are having an exceptionally mild winter here. Up to the present there has been practically no snow, and if there is occasionally a slight frost at night, a thaw comes in the morning. In sheltered situations the wild Primrose has been flowering since the middle of December, and many of the birds have been singing as gaily as if it were March.

I was much interested in the article about the Venus's Fly-trap (Dionæa muscipula) which appeared in a recent issue, as there are quantities of Drosera rotundifolia and longifolia growing here. Angelica I have only once met with.

The planting of fruit has been rapidly extending through Ireland during the past few years, and especially so in the North. Apples are the principal fruit, and the climate and much of the soil seem particularly suited to these. So great has been the demand for young trees this season that some of our largest nurserymen have almost sold out their stocks of two year old bush trees, these being the class of tree usually planted, as they are found to give the best results. Sometimes half-standards are planted, but the planting of full standards is entirely given up by those who grow fruit for profit. Shallow planting in clean land is a common, but not universal, practice. Those who do not adopt it and keep the soil around the trees free of grass and weeds find Apple-growing unprofitable, and are the class of men who state that Apple-growing does not pay. In this moist, mild climate annual spraying is absolutely necessary to keep trees free from moss and lichens. The usual spray is 1lb. of caustic soda, 1lb. of carbonate of potash or crude potash, 1lb. of sulphate of copper, and ½lb. of soft soap to 10 gallons of water. The sulphate of copper is only used where Apple spot has been present, a disease which is very prevalent here and doing serious damage. A series of experiments is being tried to overcome it, of which I may have something to say later on. Besides the wild Primrose being in flower in sheltered situations in gardens, there are the Snowdrops, Polyanthus, Wallflowers, Violets and Helleborus niger, Anemones St. Bridget, Chionodoxa Luciliæ and especially the little Mountain Wallflower, which in the rockery has been a perfect gem all the winter. Galanthus Elwesii threw up giant flowers early in December. Erica carnea and alba are just now coming in, and the first-named makes a beautiful bed. Of shrubs, Jasminun nudiflorum has been beautiful the past two months. Hamamelis mollis and Chimonanthus fragrans should be in every garden, the former for its peculiar and pretty flowers and the latter for its sweetness. Here we must grow Chimonanthus on walls, and it is a shy flowering plant unless closely spur-pruned immediately after flowering. Arbutuses are still in flower, and at the same time carrying fruits in all stages. What a picture a well-fruited bush of this is just now! Garry elliptica is pretty with its opening catkins, and near the sea Veronicas of various kinds are still showing flowers. In sheltered situations Roses were to be had up to Christmas.

Dundela Park, Strandown, Belfast. T. SCOTT.

THE ROSE GARDEN.

RAMBLER ROSES IN POTS.

THESE should be placed under cover by this time, so that frosts do not injure the embryo buds. The plants were doubtless repotted after flowering last season, or, if this were not done, they should have been top-dressed. There is no advantage in having pots too large for these ramblers. Quite big specimens may be grown in 10-inch pots; only it must not be forgotten that such plants will need watering two or three times a day when in active growth, and they will also need more liquid manure. Much disappointment is often caused by purchasing the extra long plants offered for sale, for unless the growths are well ripened they fail to produce bloom, or, if they do flower, the display is of a very meagre nature. It is much more satisfactory to purchase two or three year old specimens, or, better still, obtain one's own plants by potting up a few each year.

What are known as ground plants are so very superior to pot-grafted ones that no one will use these latter if they have an opportunity of obtaining the former. Select bushy plants two years old, on their own roots, if possible, and cut them back to about 18 inches at the time of potting, which should be early in November. Keep the plants outside for a month or so; then bring them into a greenhouse with a very moderate temperature for a start. Such plants the first season will give us five or six nice clusters of bloom, perhaps more, and after the blooms have fallen the plants will commence to send up fine long growths, which will be the basis of our specimens for next season. If preferred, the plants may be kept outdoors the first season after potting; but I like to get them under glass, as the new growths become so much better ripened.

Established plants brought in now should be overhauled, untying all the growths and laying them out on the floor or bench. The long, ripened rods produced last summer are preserved almost intact, but if too long they may be reduced as required. Two year old growths that carry good laterals should be preserved, the laterals being shortened to one or two eyes. Any old, decrepit-looking growths may be discarded. Grand pillar plants may be obtained even with three good growths only, so that it is unwise to spoil the pillars by crowding with a lot of useless shoots. Tie all growths loosely to a stout stake, and stand the plant upon inverted flower-pots if possible. Do not attempt rapid forcing at first. The plants will come along rapidly enough as solar heat strengthens. Mildew is often a source of trouble, but it can be overcome by spraying with carbolic soap solution if taken in hand before the mildew gains much hold.

ACCELERATING THE BLOSSOMING OF SHELTERED ROSES.

To obtain Roses without artificial heat a few weeks earlier than they would appear under ordinary conditions will appeal to all who love the Queen of Flowers. With the many lovely Teas, Hybrid Teas and Monthly Roses this is quite practicable if a sunny border is selected and planted with the best of these tribes. Then, by covering them with frames in winter and early spring, the plants will yield bloom some weeks before those plants wholly exposed. This is no new idea, but is one that was much in vogue many years ago. It seems, however, to have fallen into desuetude; and this, I think, is a great pity. Any handy-man could make suitable frames of wood, for these are better than brick pits, as the whole frame may be lifted off in June and the plants receive natural treatment. As the plants develop, it is always possible to put blocks under the frames. To obtain the most bloom the bushes should be lightly pruned and some of the growths tied over, which not only induces a better breaking of new growths, but also keeps them from being too near the glass. Plenty of air should be given in favourable weather until the plants have developed new growths of considerable length; but after this, in order to force on the growth, the lights may be closed early in the afternoon, even though the sun is shining, for this enclosed solar heat will be very beneficial. Fumigate with McDougall's Tobacco Sheets, and if mildew appears syringe with a solution of carbolic soap or "Abol" White's Superior. Spare pit-lights can be utilised to great advantage by leaning them against south walls upon which are planted the less vigorous Tea Roses of the Lady Roberts type. Even this slight protection will accelerate growth very considerably, and any simple methods that will give us Roses a week or two earlier should be welcome. P.

SINGLE ROSE UNA.

THIS beautiful single Rose should be in every collection. It is one of the hardiest of all the climbing single Roses, as well as one of the most beautiful in form of flower. The blooms, when they open, are of the palest shade of buff, which, as they age, turns to pure white. It is especially suitable for covering pillars from 6 feet to 8 feet high, or if planted as an isolated specimen on the lawn or in the semi-wild garden and allowed to grow at will it will soon cover a good space of ground. It produces its flower-buds in clusters, similar to most of the hybrid Briars, and makes a good show for quite a considerable time. Though perhaps a little more stiff than some of the other single Roses, it is a very useful flower for decorative purposes.

T. STEVENSON.

Woburn Place Gardens, Surrey.

THE MAKING AND UPKEEP OF GARDEN PATHS.

DURING late winter and early spring a general overhauling of paths is necessary, in order that they may be placed in thorough repair for the months when the garden is most used. Paths at the best are a blot on the landscape, but a very necessary blot; therefore, when they are first laid out care should be taken to make them connect two or more vital points in the garden in the most direct way. When it is possible to make a straight path, do so; but when a curved path is necessary, let the curve or curves be bold and show an object, such as the avoidance of a fine tree, a well-placed group of shrubs, or a building. When no such object exists, some special tree or bed of shrubs or other plants should be placed in the curve, for nothing is more objectionable to a picturesque landscape effect than meaningless curves in paths or the silly little wriggles that one sometimes meet with. In some instances it may be applicable to make a grass path answer the requirements, and when this is possible, do so by all means.

The object for which the path is to be used has a great bearing on its formation. For light pedestrian use or for wheeling on in dry weather no great trouble need be gone to in the making. Providing the ground is naturally well drained, 3 inches of clinkers or coarse gravel, with an inch or 2 inches of surfacing material, are quite sufficient; but when a path is to be subjected to hard wear the preliminary work attached to it is greater. The ground should then be excavated to a depth of 9 inches or 12 inches, and be filled to within 3 inches of the surface with brick rubble; on this clinkers and ashes should be spread, with a little surfacing material on the top. Such a path will stand the ordinary carting necessary in a garden; but for a carriage drive or for a path which is to be carted on regularly, flints or granite should be



A FLOWERING SPRAY OF ROSE UNA.

substituted for the clinkers immediately below the surfacing material.

Where the ground is naturally wet and heavy, agricultural drains, connected with a good outlet for water, should be laid along each side of the road. These drains should be connected with the surface here and there by means of small catch-pits.

The question of surfacing material is one which demands consideration, for it must be either good binding gravel, loose gravel, granite or limestone chips, or asphalte. The latter is not to be encouraged except in very small gardens or for some special object. Binding gravel is useful for most purposes, but after a frost or a shower following a period of dry weather, when the surface becomes moist and the lower part is dry and hard, it picks up badly. Loose gravel is not subject to the disagreeable character of binding gravel after frost or rain, but it is less comfortable to walk on during ordinary weather, and dirt cannot be cleaned up from it very easily. On the whole, a good binding gravel forms the most satisfactory surface, for it is only occasionally that its disagreeable character is apparent, and, by keeping off it for a day or two until the path is soaked through, its sticky nature may be avoided. A good heavy rain may, and frequently does, improve the path, while a light rain makes it pasty.

At this season of the year advantage should be taken of favourable weather to re-gravel any paths which require it and to patch up any holes in paths which may not require re-gravelling. Now and then it may be advisable to loosen the gravel all over and rake it level previous to rolling it down. This often serves to freshen the surface for a year or two. Where this is not necessary, advantage should be taken of a wet day to mark any low places which are easily apparent by the water standing there. Such places may then be easily patched when the weather permits. Paths which have been washed by heavy rains and have lost some of the binding clay may be improved by a good rolling when thoroughly wet and a thin application of shell, which may be obtained from dealers at the seaside. This shell, rolled in, helps to bind the loose gravel. Too much must not, however, be used, or it will help to form mud in wet weather after it has become thoroughly ground up.

No opportunity should be lost of rolling paths. After every heavy rain the roller should be used, especially when the paths show any appearance of roughness. Rolling, too, helps to keep down weeds. Should small ruts occur in a path which is used by carts or carriages, they ought to be raked up and rolled as soon as possible, for it is astonishing how quickly a deep rut can be made by the neglect of a broken surface for even a short period. Water collects in the inequalities and rots the surface, which in turn is ground up by every passing conveyance. On loose gravel paths this raking in is required more frequently than on hard paths, for they are cut up alike in wet and dry weather.

The proper weeding of paths is a very necessary item, for weeds quickly cause the surface to deteriorate. As a rule, one dressing a year of weed-killer is sufficient. This should be applied in dry, but not very hot, weather. There are quite a number of excellent kinds now on the market, several of which are usually advertised in THE GARDEN during the spring months. As these are of a poisonous nature all reasonable care must be exercised in using them. Full directions are issued with each package by the vendors, and if these are faithfully carried out there is no danger. Most kinds are now sold in powder and liquid form, and either is equally good for the purpose of destroying weeds. Brushing must be done lightly, so that dirt is removed without disturbing the surface gravel. By attending to small details like these the success of a path is ensured, while their neglect leads to the opposite extremity.



A BED OF MIXED VICTORIA ASTERS IN A SUBURBAN GARDEN.

THE TOWN GARDEN.

BEDDING ASTERS.—The wide range of colours found in the so-called bedding Aster, the ease with which the plants are grown and their general utility in the garden or for decoration during the late summer and early autumn months must be my excuse—if need there be for such—for referring to them in this column. Indeed, it is unnecessary to take more than a short walk in any suburban district at the season stated before realising that they appeal to a very wide circle of town and suburban dwellers who delight to possess something of a showy and attractive character, something, indeed, that is easily grown and flowered with the means at their disposal. Happily, too, the present high-class strains of these flowers come so reliably true to type, as well as to colour—that is to say, the habit of growth is just as reliable as the colour of the variety when raised from seeds—that colour schemes or designs may be easily formed in advance, and the seedlings presently planted will not fail to produce the desired effect provided that the cultivation of the soil has received due attention.

PREPARATORY WORK.—Just now, however, attention should be directed to preparing the soil where this is not already done, since the Chinese Aster (Callistephus sinensis) is certainly one of the few annuals for which a deep, rich soil should be made. Naturally, as with many another subject, there are Asters and Asters, some perfect models of their kind, others simply caricatures of what they might have been, reflecting no credit on the beautiful strains they are supposed to represent nor upon the cultivator. The best way to avoid such misrepresentations of so good a plant is to start now by digging the soil of the beds or borders 18 inches or 2 feet in depth, by incorporating—that is, thoroughly mixing with the soil as the work proceeds—considerable quantities of well-decayed manure, and applying in addition to the upper portion of the soil some bone-meal at the rate of a peck to each bed having a diameter of 6 feet or thereabouts.

THE SOIL PREFERENCES OF THE ASTER.—It is in the very light soils and those containing much sand that these plants give the greatest trouble to the cultivator, and soils through which the water percolates much too quickly are by no means calculated to secure complete success. An application of lias or other clay to such soils would prove of much assistance. Failing this, lime or chalk might be added, for the Aster is quite partial to lime, and upon more than one occasion I have added old mortar to heavy soils, with greatly increased success. To such as these latter sand, road sweepings and leaf-mould might also be added freely, and, given deep cultivation, the best results may be expected. In opposition to these things, it is in shallow and poorly worked soils that the worst examples are seen.

SEED-SOWING AND GENERAL MANAGEMENT.—In an ordinary way the early days of March will be full early for sowing the seeds for open-air cultivation. For special purposes a sowing might be made somewhat earlier, and for later work be continued well into April. The seedling plant of the Aster is opposed to great changes of temperature, violent alternations of heat and cold being highly detrimental to the young plants; hence cold frame treatment has many advantages, or the slightly warmed frame—a manure frame neither too hot nor too moist is very good. Fine and comparatively dry soils are best for seed-sowing, the seeds to be hidden by the finest covering of soil. Thin sowing of the seeds is most desirable. When thickly sown the seedlings frequently damp off when 1 inch or so high. Not infrequently the greenhouse shelf is brought into use for seedling-raising, and it is good provided the extremes of heat, moisture and dryness are avoided.

VARIETIES TO GROW.—So great is the wealth and variety of Asters that it is difficult to make a selection of them to suit all. A reference to the accompanying illustration will, however, demonstrate what is possible in a suburban garden with the use of a cold frame. The bed is composed of the well-known Victoria Aster (Sydenham's strain), the seedlings being sown and cultivated in the cold frame, and transplanted therefrom to the bed in which they are shown to be flowering.

S. N. N.

GARDENING FOR BEGINNERS.

PRUNING LIME, POPLAR AND PLANE TREES.

NO trees are more generally useful than the three mentioned, which are found freely planted in and around the cities and towns of the United Kingdom. As a matter of fact, in some centres, especially in the suburbs of the great metropolis, there is a plethora of the Lime, Poplar and Plane, to the exclusion of more beautiful trees, and many suburban residents would welcome a change that would make the surroundings of their homes more varied in their character than is now the rule. Largely through ignorance many promising young trees have been spoiled and have become an eyesore.

The pollarding of Limes annually practised by so many suburban residents is a most reprehensible rule to observe, the growths in many instances being cut back to mere stumps, which a well-known writer has aptly described as "ugly monstrosities." Through the late autumn and winter months such specimens cannot possibly afford growers any pleasure, and throughout the period they are in leafage their formal and compact appearance is neither natural nor graceful. Doubtless many readers are quite familiar with Lime trees of the description just mentioned, and a moment's reflection must make such treatment of beautiful trees appear to be almost a sacrilege. The proper, or, rather, the better, way to deal with all three trees under notice is to cut out a few of the larger branches here and there, also to thin out some of the more crowded of the branches. Pruning may be done any time between October and February. Leave a sufficient number of the twiggy branches of more recent development; these, if carefully selected, will have the effect of creating a rather more natural form of growth that is pleasing at all times and seasons. Even in the winter such trees have a beauty peculiarly their own under such treatment.

After all, what is the object of pruning? It is to encourage the development of growths or branches in such a manner as to admit light and air into the tree, thus producing superior growths and enabling the tree to concentrate its vital energy on those shoots or branches subsequently evolved. When done intelligently the result is distinctly successful, and a tree of even contour is the reward. Proper tools are very necessary, and a great saving in labour may be effected by their use. A ladder may be dispensed with when sécateurs of an up-to-date kind are used; it is astonishing how quickly and easily they remove the branches. In Fig. 1 a Plane that has been recently cut back hard is shown. This system of pruning has been practised for years, and the beautiful specimens have developed in consequence. The trees are subjected to this drastic system of pruning every three or four years, and they have never failed to respond with vigorous growths subsequently. The growths or branches are not all cut back to one uniform length; those of a weakly character are cut back more severely than branches of a stout and vigorous kind. When the framework of the tree has been built up, as shown in the illustration before mentioned, the vigorous growths may be pruned back to within 5 inches or 6 inches of their base. For the purpose of showing the effect of this system of pruning I have portrayed in Fig. 2 a specimen Poplar cut back two years ago. A careful inspection of this photograph will reveal the shapely form of growth that has developed, and this tree should be a specimen the symmetry of which no one, surely, can find fault with. D. B. CRANE.



1.—A WELL-PRUNED PLANE TREE.



2.—THE SYMMETRICAL CHARACTER OF THE POPLAR IS RETAINED BY CORRECT PRUNING.

ORNAMENTAL GREENHOUSE PLANTS: DATURAS.

THIRTY years ago gardeners grew splendid plants of Daturas, or Brugmansias, as they are often called. They are long-lived plants bearing short-lived flowers, but the latter are gigantic, very fragrant and imposing; also they are freely borne, especially on old specimens. Amateurs should grow these plants both for the embellishment of the greenhouse and the flower garden. They are telling subjects when grown in large pots or tubs and placed in the open air during the summer months, and very serviceable in the cold greenhouse. I have known plants to remain in large flower-pots for many years, and, although they were never repotted, top-dressed, nor fed with manure-water or artificials, they rarely failed to bear flowers every year. Of course, these plants were almost leafless; but well-grown specimens bear many long, handsome leaves, which droop down in a graceful way almost as much as the large, trumpet-shaped blooms. If plants can be kept in a light position and just safe from frost, they may be wintered quite safely. Old plants should be repotted now. Use the best fibrous loam at the rate of three-parts to one-part of sweet leaf-soil. Put in plenty of coarse sand to render it porous. The following are good varieties to grow: Datura suaveolens, white, flowers during August; D. Knightii, white, the blooms double and very beautiful; D. sanguinea, scarlet, flowers during the latter part of July and in August; and D. lutea, yellow, later flowering than the above, which should be grown chiefly in the greenhouse.

D. fastuosa fl.-pl. is also a double-flowered variety, and D. fastuosa rubra is white, tinted purple, the former blooming in July and the latter much earlier—in May. AVON.

THE FRUIT GARDEN.

FRUIT TREES FOR SMALL GARDENS.

(*Continued from page 2.*)

BASTARD TRENCHING THE SOIL.

AS the quarters for the growth of fruit trees and other crops will naturally be of small extent in the gardens under consideration, it will not be necessary to divide them for the purpose of trenching, as would be the case were the quarters larger, and therefore I would say to the novice or the beginner in the work that the first thing for him to do will be to open a trench at the bottom of the quarter he is proposing to trench for the whole of its length. Let the trench be 2 feet wide and 2 feet deep, if there is soil to throw out to this depth. If there is not more than 1 foot of soil, throw out that foot to form the trench; and if there is less than 1 foot of good soil, it will be of little use planting fruit trees in such soil unless more is carted into the garden to increase its depth. The soil taken out of the trench must be wheeled to the opposite end of the quarter, where it will come in to fill the open trench when the trenching is completed. Now, we will suppose that we have the trench open, say, 2 feet deep and 2 feet wide. The next thing we have to do is to dig up the bottom of the trench to the depth of 1 foot, thoroughly breaking it up, whether it is composed of gravel, brash, or clay, *but it must be left in the bottom.* Someone will ask, Why should we go to this expense and trouble of digging up this inert and poor subsoil unless we are to bring it up to the top and make better soil of it by mixing with the top soil? Many garden operations will seem dark, and have to be taken, as it were, on trust by the learner, and trenching is one of these. The chief benefit derived from such trenching is that it aerates and enriches not only this bottom soil, but the whole body of such soil, by making it possible for air to penetrate to a greater depth, thereby increasing its warmth and fertility, and also that rain, which contains many valuable manurial constituents, passes through the soil more freely and to a greater depth, immensely increasing its capacity for the growth of trees and all other plants.

The first trench being open and the bottom broken up, our next step will be to form another trench next to this of the same depth and width, using the soil taken from it to fill the open trench. Instead of placing the top spit of soil from the second trench in the bottom of the first, it will be better to mix the top and second spit of soil together, and to incorporate at least half a barrow-load of good rich farmyard manure to each 3 yards run of such a trench, and also a quart of bone-meal, mixing it well with the soil as the work of trenching proceeds. Having filled the first trench as directed with the soil dug out from the second, the third trench opened will come in for filling the second in the same way, and so the work will proceed until the quarter is finished, the last trench being filled by the soil wheeled from the first to the end of the quarter. Now we will suppose that the walks of our garden and the trenching are completed, and that we are ready to start on the pleasant task of planting our fruit trees.

As far as Apples, Pears and Plums are concerned, I think that the better way is to plant them by the side of the walks—if there is not room on both sides of the walk, certainly on one side. Ample space should be left between the trees, so that easy access may be had to the quarter of the garden behind them for wheeling manure on the land and for general purposes of cultivation. The trees should be at least 10 feet distant from one another and not less than 4 feet distant from the walk. When planted in this way they help to furnish the garden in a pleasant manner. The trees are lovely to look at when in bloom, and in autumn, when the fruit is ripening, they are well under the eye and will give infinite pleasure to those watching their progress to maturity. This mode of planting gives also easy facilities for gathering the fruit.

Bush Apple trees for growing in a small garden should always be worked on the dwarf Paradise stock. Do not buy the trees too large or too old. Three years old is a good age, and trees should be of fair size at that age. Make sure your young trees are not infested with American blight, a hateful pest which, once established, is most difficult to eradicate. Do not have your trees delivered until the soil in which they are to be planted is ready to receive them.

Instructions given for planting Apple trees will apply equally to Pear and Plum trees, and also Cherries if a few trees of these are desired. It would be useless to plant these latter trees in a small garden unless the owner is prepared to well net the trees when the fruit is ripe; otherwise the birds would take it all in a very short time. Care must be taken not to plant the trees too deeply. It is easy to find out the proper depth a tree should be planted by noting the bark at its base. It will be found that a dark ring has been formed round the bark, and the space between this ring and the roots of the trees is a safe indicator of how deep the trees should be planted, generally from 5 inches to 6 inches. The depth of the holes in which the trees are to be planted has already been specified. Their width should be 6 inches wider all round than the roots of the trees are long. On trenched land such as we are dealing with it will be necessary to tread the bottom of the hole firmly, or the soil may afterwards sink and the roots be disturbed and possibly injured.

In preparing the tree for planting, the points of all the roots should be slightly shortened back, using a sharp knife. Should the tree possess what is usually termed a tap root (really an elongation of the stem), this, if not prevented, will surely penetrate into the poor subsoil down below and cause trouble afterwards. The usual way of dealing with this tap root is to cut it back to a length of from 6 inches to 7 inches. This will cause smaller roots to radiate from it, which in time will form small fibrous surface roots; these will prove of great advantage to the trees afterwards. But I ought to say that by this treatment of the tap root there will always be a tendency and a danger of another tap root forming in the course of time. To obviate this danger, my friend Mr. Crump of Madresfield Court Gardens adopts a plan of dealing with the tap root which does away with this danger. His way is not to cut the tap root, but to bend it into a horizontal line. Surface roots will emanate from it when treated in this way quite as freely as when cut back after the old method, and they will certainly be easier to maintain near the surface than would those resulting from the severely pruned tap roots.

The hole being ready and the roots of the trees properly pruned, place the tree in the centre of the hole, pressing it gently into the soil; then with the spade throw the soil among the roots, packing it among and round them with the hands and pressing it firmly down as the work proceeds until the hole is filled level with the surface of the soil, finishing by treading the surface down firmly. Dry weather should be selected for planting, if possible. The only process left now is to place a mulch of rotten manure on the surface of the soil round each tree as far as the roots extend. Winter rains will wash down into the soil the ammonia and other constituents of the manure, compelling the formation and retention of a host of valuable surface roots, and, as a consequence, the formation of short-jointed, well-ripened wood, with abundance of fruit spurs and blossoms, and in due time a generous return in ripe fruit. The mulch should be continued through the summer. It will feed the surface roots and preserve moisture in the soil. OWEN THOMAS, V.M.H.

(*To be continued.*)

NURSERY NOTES.

MESSRS. BLACKMORE & LANGDON, BATH.

IT is characteristic of many of our British nurserymen to specialise in some particular plant, devoting a great deal of time to it and bringing it to as near perfection, or, rather, their own ideal, as is humanly possible. This is as it should be; the general public is certain to benefit in the end, and without this centralisation of intelligence and energy many of our best florists' flowers would not have reached the high standard that has been attained. Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, have for many years specialised in tuberous Begonias, and the result is those wonderful flowers of rich colours and highly diversified forms that the firm stages each year at the Temple and Holland House shows of the Royal Horticultural Society.

During the first week in October of last year we accepted a long-standing invitation and travelled to the ancient town of the West to inspect these Begonias in their home, and the sight that met us even at the outset more than repaid us for the trouble. The Twerton Hill Nursery, as its name implies, is situated on the top of a steep hill, whence a charming view of the surrounding undulating country is obtained. Excellent though such a situation is from an æsthetic standpoint, one would scarcely expect it to form an ideal home for tuberous Begonias; yet there they were, in a multitude of colours and forms, wind-swept from all sides, yet flowering with a freedom and vigour that denoted high quality with perfect health. These outdoor plants were all seedlings, raised from seeds sown the previous January and February under glass, and subsequently planted out at the end of May. And they numbered 100,000.

It is certain that the average gardener has no idea to what state of perfection these Begonias have been brought. No description, however vivid, can do them anything like justice. Imagine stems as thick as a man's thumb, with large, stout foliage almost obscured by the large flowers, some shaped like Camellias, others like Roses, and others, again, with a delicate frilling that doubtless finds favour with many, and you will get a little idea of these seedlings as we saw them at Bath. Many of the flowers that we measured were 6 inches in diameter and 4 inches in depth, and the average diameter was not less than 4 inches. It was hard to decide which we liked best—the mixed colours or the large batches of separate colours; all were beautiful in the extreme. Pink, white—real white, like driven snow, and of the form of Frau Karl Druschki Roses—vermilion, creamy white, some with two colours, *i.e.*, one colour at the back of the petals and another in the front

rilliant scarlet, crimson, yellow—real good canary ellow—orange, salmon, old gold and apricot, as ell as that indescribable mixture of colours ound in Lyon Rose, were all there, and each was s near perfection as we would wish it to be. n addition to these ordinary doubles of Camellia nd Rose like forms, we saw a new race in the aking, *i.e.*, double flowers with beautiful fimriated edgings.

Leaving the double flowers, we came to large asses of singles, which include all the colours amed already. In addition there were the beautiful illed single flowers, which caused such a sensation hen introduced by the firm about five years ago, nd of which they have ever since scarcely been ble to raise enough to meet the demand. The bers made by these seedling double and single egonias are exceptionally strong, and splendidly dapted for bedding purposes, particularly where a rilliant display is required until late in the autumn.

Realising as they do the demand that exists for arieties specially adapted for bedding in separate lours, and which may be planted in quantity, essrs. Blackmore and Langdon have selected a mber of the freest-flowering and most brilliantloured varieties for such purposes, and the followg were some of this kind that specially appealed us: Gladiateur, double, crimson, frilled; Hilda, ry large, salmon, frilled; Argus, brilliant scarlet, uble; Bertini, single scarlet, tall, and with flowers the well-known weltoniensis type; and Marquis Stafford, dwarf, crimson.

Although the tuberous Begonia is such an excelnt plant for bedding purposes, its value for greenuse and conservatory decoration when grown in ts must not be overlooked. Tubers potted up spring and grown along slowly in a moderate mperature are easily managed, and form mmetrical plants of rare beauty. At the ne of our visit the season for pot plants was tting over; yet we were able to see a number of e-struck plants of exceptional beauty. Among me of the newer named varieties specially selected growing in this way, the following were all perb double sorts, and can be confidently recomended to all who appreciate these flowers: Purity, rge, pure white, with slightly-frilled petals; ss Ethel Gill, deep pink, very large, full wers, with daintily-waved petals; Pink Pearl, licate shell pink, very vigorous; Winsome rtner, orange self, full flower of great beauty; chess of Cornwall, large, massive flower of glowg crimson hue, of Rose shape and very deep; rd Kitchener, brilliant scarlet, vigorous and of right, soldierly habit; and Mrs. D. Paterson, a ely Picotee flower, the rich yellow ground colour ing most delicately margined with pink.

A comparatively new race of Begonias, for ich there is undoubtedly a brilliant future in re, is one that is specially adapted for growing baskets in the greenhouse and conservatory. ready there is a wide range of colours available, ny delicate art shades being included. Most the flowers are small, of Cactus Dahlia shape d double or semi-double, the slender stems hangg over the sides of the baskets in a most pleasing nner. We noticed a large number of hybrid dlings of sterling merit, and as they have tuberous ts, their culture in baskets is simple. Among e named varieties of this section, two called for cial mention. These were Golden Shower, uble flower of golden apricot hue, and Fleur Chrysanthème, delicate shade of shell pink. In lition to Begonias, Messrs. Blackmore and ngdon have large stocks of border and perpetualwering Carnations, Delphiniums, Violets, Polythuses and other hardy flowers, and the visitor Bath would find much of interest at the Twerton l Nursery.

SWEET PEA CULTIVATION.

THE following paper was read by Mr. George Herbert at the conference of the National Sweet Pea Society in December last, and met with the general approval of the members:

In the present paper I give what has been my own experience in Sweet Pea culture, more especially for exhibition purposes. I always consider the secret of success lies in the preparation of the ground. No matter how good the variety or how clever the feeding, if the ground is not thoroughly prepared one cannot reasonably expect good exhibition blooms, at least not such as are required to win prizes at the best exhibitions. I have found a fairly heavy soil suits Sweet Peas best, as they continue flowering for a much longer period and produce finer blooms, as a rule, than if grown on a light soil.

The whole of the ground intended for Sweet Peas should be trenched to a depth of 2½ feet to 3 feet, and this should be done as early in the autumn as possible, to allow the soil to settle down during the winter. When trenching, have the two top spits turned from one trench to the other, and the subsoil, whether clay or sand, dug 1 foot deep, adding to it plenty of good rotten manure, leaves and bonemeal. If there is a clay subsoil, give it a good dressing of lime and ashes previous to turning the two top spits from the next trench on to it. I do not believe in putting in a thick layer of manure, then a layer of soil and so on, but I do believe in thoroughly mixing the whole of the soil and manure together. This allows the Sweet Peas abundant and good food from the beginning to the end of their career. Many people put manure 1 foot thick at the bottom of a trench and none anywhere near the top, and the consequence is that all the time the plants should be making rapid progress they are at a standstill, and by the end of the season they have just found the manure and are doing their best when the frost comes.

Trenching should be finished before the New Year if possible, as this allows the soil a good three months to settle down before planting time, and, in my opinion, nothing is so detrimental to Sweet Peas as loose soil. I always aim at making the soil quite firm, and as the trenching proceeds we slightly tread down each bottom layer as it is put back (provided it is not too wet). The top is left as rough as possible to allow the weather to do its work. Early in the spring, before planting, a thin layer of short manure is spread on the ground and a light dressing of lime and soot over the top, and the whole is forked in; directly the soil is dry enough it is trodden firmly, and it is then ready for planting.

I consider the autumn is by far the best time for sowing Sweet Peas for all purposes. About the middle of October is a very good date. I prefer to sow in very shallow boxes, let the seeds germinate steadily in a cold frame, and when the seedlings are about 3 inches high pot them up singly in 3-inch pots, using a good loamy soil and potting firmly. They are then transferred to a cold frame and plunged to the rim of the pot in ashes, and here they remain till they are planted out in their flowering quarters in April. White, lavender and cream varieties I always sow in very sandy soil; in fact, my best results in the germination of white Sweet Peas have been from pure sand. The seeds are apt to rot if kept too damp, owing to their very thin skin.

After potting, the seedlings should be kept moderately dry, because from December to February they grow very little. Air should be admitted to the frame freely, and if the weather is open the lights should be taken off altogether; this keeps the plants sturdy and strong. To coddle Sweet Peas means to ruin them.

The first week in April is a good time to start planting, weather permitting. If the plants have been kept cool through the spring they will suffer no injury whatever from any frost we may have after that date. For exhibition purposes I prefer rows to clumps, and allow at least 18 inches from plant to plant for all the strong-growing varieties. All are planted in double rows, but the individual plants are not placed opposite one another. Twelve inches is allowed between the double row. This allows the air to circulate between the plants as they are growing, and keeps them from becoming sappy through overcrowding. Plant firmly and place small twigs round each plant at once.

A great deal has been written as to the best way of staking Sweet Peas, and I have tried various methods, but the system adopted last season pleased me most, and certainly was the most satisfactory. Two poles about 12 feet high were put in at the end of each double row of 25 yards' length, and two more halfway between. A thin galvanised wire was then strained from pole to pole on the top, another in the centre and one about 12 inches from the ground. Long Hazel sticks were then inserted in the ground outside the wires on either side of the row and tied back to the wires, this keeping them in an upright position and leaving a clear air-space of 12 inches down the centre of each double row of plants.

When the plants are growing well, three of the strongest shoots on each should be retained and all lateral growths removed; this applies to the stronger-growing varieties, such as Elsie Herbert, John Ingman, &c. Nancy Perkin and Earl Spencer will do better with two stems, or even one stem. If the more vigorous varieties do not have more than one stem, coarse blooms often result, and these badly placed on the stem. The lateral growths should always be removed when young, simply rubbing them out with thumb and finger. This early disbudding saves a great deal of time, besides allowing all the strength of the plant to go to the haulm which has to produce the exhibition blooms. The growths should be trained on the outside of the sticks, and this can easily be managed by an occasional tie.

It is advisable to examine the Sweet Peas every day, for when about 3 feet high the plants rapidly increase in strength and the tops get heavy, so that if there should be a rough wind or a heavy shower and the tendrils do not happen to be in reach of a stick to cling to, the growths snap off or become so twisted as to spoil them, At this stage of growth, if the weather is warm, an occasional damping over in the evening is a great help to Sweet Peas. About the middle of June, if the weather is at all dry, give a heavy mulch of long manure on each side of the row. This keeps the ground cool and moist. The Dutch hoe should be worked freely round the plants during the growing season, as this is a great help, more especially if the weather is dry.

As regards feeding, very little artificials is needed if the ground has been well prepared. On light soils I admit more feeding will be needed than on heavy ones. I am a strong believer in soot as a manure, and this is worked round the plants with the Dutch hoe before being watered in. Mackereth's Sweet Pea Manure I have also used with success, more especially in connection with pot culture; but, as I have already said, I depend chiefly on what is put into the ground before planting, and artificials I look upon as stimulants to be used if needed, but they often do more harm than good. I saw an example of this last season at one of our largest shows. There were flower-stems considerably over 2 feet in length, but the flowers

would have looked a deal better on 6-inch stems. I asked the exhibitor how he obtained such long stems, and the answer was, "Nitrate of soda." I had guessed as much, for although the flowers had not travelled half the distance others in the show had, they were too soft and flimsy to open properly after being put in water; in fact, after the first day scarcely anything but the stem was to be seen. I do not condemn patent manures, but say emphatically they must be used very carefully and in conjunction with natural manures—and hard work.

Having made experiments with feeding both on heavy and light soils, I have found better results follow on heavy land with very little feeding than on light soil with heavy feeding, the ground being well prepared in each case.

If late flowers are wanted from the same plants, it is a good plan to cut back alternate plants to one of the strong lateral growths that keep showing at the bottom of the haulm. This should be done about six weeks before the blooms are needed, and by keeping the early buds picked out as they appear the laterals will soon gain strength enough to produce really good blooms.

Sweet Peas should be cut freely, and not a single seed-pod should be allowed to form so long as flowers are needed for exhibition purposes. This advice has been quite unnecessary during the last two seasons, for it has been a trouble to get seeds to set at all.

A few Sweet Peas benefit by a slight shading, and I think this is a point where some growers make a mistake. They endeavour to be extra careful, and put tiffany over all the plants, but what improves one variety spoils another. All the Sunproof Crimson set, lavender, bronze and cream varieties are improved by the sun, and lose their brilliancy or purity of colour if shaded. Such varieties as Nancy Perkin, Earl Spencer, Stirling Stent and Dazzler are improved if shaded for about three days before they are wanted for show. After the flowers are cut the shading should be removed at once, as it soon causes the plants to become drawn if left in position.

A selection of varieties is best left to the discretion or taste of the grower. If he is a keen Sweet Pea man, he will certainly be a member of the National Sweet Pea Society (if not, it is quite time he was), and, being a member, he will be furnished with all information he desires regarding varieties, and so can make his own choice. Further, if he wishes to see the best and the newer Sweet Peas growing, he can, by taking a trip to the society's trials at Sutton Green, Guildford, see the cream of varieties, and so can make his own choice.

NEW PLANTS.

CYPRIPEDIUM ELIZABETHÆ VOGELZANG. — The flower of this novelty is remarkable for its size. It has a broad dorsal petal nearly 3 inches across, with chocolate spots and a green base. The pouch is of a brownish green hue, and the wavy petals are of a similar shade. The parentage of this remarkable Cypripedium is C. Hera × C. Hitchinsiæ. Shown by M. Firman, Lambeau, Brussels.

Cypripedium Charles Sladdin.—This is a charming hybrid between C. glaucophyllum and C. bellatulum. The flower resembles C. glaucophyllum in form, although in general character the plant is intermediate between the two well-known parents. The flowers are mottled all over with a deep rosy hue on a white ground. The foliage, too, is very beautifully marbled. Shown by Messrs. Sander and Sons, St. Albans.

Odontoglossum Godmanii.—The flowers are very curious; they are small, with curled petals of a distinct violet shade. The lip, however, is golden crested. It was shown by F. Du Cain Godman, Esq., South Lodge, Horsham. The parentage is O. Edwardii × O. Rolfæ. The cross resembles the former parent.

Odontoglossum rosefieldensis.—A fine hybrid somewhat after the style of an Odontioda. The flowers are brick red or dull scarlet in colour, with a white apex to the lip and golden crest. The spike carried eleven flowers of good form. It was raised and shown by de Barri Crawshay, Esq., Rosefield, Sevenoaks. The parentage is O. harryanum × O. lambeauianum.

Odontoglossum halseyanum.—The flowers are of good size, form and colour; moreover, they are freely borne. The plant carried a raceme bearing eleven good flowers; the individual blooms were nearly 3 inches in diameter. The flowers are densely blotched with light chocolate over a white ground. Shown by J. Gurney Fowler, Esq., Glebelands, South Woodford.

Each of the foregoing received an award of merit from the Orchid committee of the Royal Horticultural Society on January 17 with the exception of the first-named Cypripedium, which gained a first-class certificate. On this occasion no awards were made to novelties by the floral committee.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Flowering shrubs for a border shaded by Beech trees (*Cora*).—You have not got a very wide choice of flowering shrubs for planting in a border which is heavily shaded by Beech trees, and the herbaceous plants which would thrive in such a position are not of the most showy character. The best shrubs would probably be Berberis, Daphne Mezereum, Viburnum Tinus, Gaultheria Shallon and Berberis vulgaris. Herbaceous plants such as Asters, Impatiens Roylei and Phlox varieties might be tried, but it would be an experiment. We advise you to abandon both ideas and plant the ground with hardy Ferns, with here and there a Tree Ivy, and among the Ferns plant Snowdrops, Anemones such as A. nemorosa, A. Pulsatilla and A. blanda, Cyclamen Coum, Christmas Roses, Primroses, Lily of the Valley, Daffodils and other kindred plants. Such a border would be effective during the greater part of the year. The inclusion of a few small tree butts among the Ferns would be an advantage. They might be covered with trailing forms of Ivy or with Vinca minor or V. major. Failing tree butts, large stones might be introduced. A simple border such as this would be uncommon, and suitable for the purpose.

Injury to Violet leaves (*H. E. B.*).—The Violet leaves appear to have been injured at some time by a small slug. There is no fungus upon them, and they appear otherwise perfectly healthy.

FRUIT GARDEN.

How to destroy mealy bug on Vines (*Enquirer*).—There is no need to destroy the old Vines yet. Remove all the loose bark, then gently scrub the rods with water heated to 120°. Afterwards wash them with Gishurst Compound according to the directions given with the insecticide, and finally fill up any holes or cracks in the rods and spurs with pure Gishurst Compound. At no time must the eyes or buds of the Vines be touched either with the hot water or insecticide. Of course, it will be necessary to well wash the inside of the vinery, to paint the wires with paraffin oil and the walls with hot limewash. All loose surface soil must be removed from the border; it should be brushed up. When the Vines begin to grow in spring, watch them carefully, and if any of the insects have escaped the winter dressing, kill them as they show themselves on sunny days. It is almost impossible to kill all the pests with one dressing, but in two years they may be entirely got rid of.

Loganberry to plant (*Miss N.*).—The Loganberry may safely be planted any time from now to the end of February, but the sooner it is planted the better.

Grape rot (*Anxious*).—The Vine is subject to so many diseases that we are rather at a loss to know the nature of the disease which attacked your Muscats last year. Will you please describe it more fully, and we will do our best to help you.

Apple shoots diseased (*H. W. B.*).—The shoots are attacked by the Apple scab fungus (Fusicladium dentriticum). This fungus is often noticeable in the shoots of Cox's Orange Pippin, and in the spring it passes from the shoots to the leaves and young fruits. It forms scabby spots, and very often deep cracks, on the fruit, and such fruits are most unsightly and are open to the attacks of various fungi, which cause decay. The best measures to adopt are to prune away all diseased shoots and to spray the tree while dormant with copper sulphate (98 per cent.) dissolved at the rate of 1lb. to 25 gallons of water. As soon as the buds begin to burst, spray with Bordeaux mixture at half the strength used for spraying Potatoes. Repeat the spraying as soon as the petals have fallen and again about three or four weeks later.

Apple and Pear trees not fruiting (*Fruit Lover*).—After all the trouble and expense you have been put to in root and summer pruning your barren trees without any beneficial result, we would certainly advise you to head them down and graft with other sorts in spring. If the grafter understands his work and the stocks worked on are fairly vigorous and healthy, it is wonderful how quickly a tree of a new variety can be formed. We are afraid that, growing in your strong soil, the roots of the trees strike down too deeply. Try the effect of the following treatment on some of your trees: Clear the ground over the roots of the trees of all grass, weeds, or anything else in the way of a crop growing near to or over them; scatter the ground as far as the roots of the trees extend with a moderate quantity of bone-dust, and fork it lightly into the ground, say, 3 inches or 4 inches deep. On the top of this place a layer of rich rotten manure 3 inches deep over the same extent of ground. Varieties to graft: Apples, dessert—Devonshire Quarrenden, James Grieve, Wealthy, King of the Pippins, Mother, Christmas Pearmain, William Crump, Ellison's Orange, Hubbard's Pearmain, Sturmer Pippin (later) and Lord Hindlip (later). Apples, cooking—Potts' Seedling, Lord Grosvenor, Grenadier, Lord Derby, Lane's Prince Albert, Alfriston, Newton Wonder and Bramley's Seedling. Pears—Marie Louise, Conference, Williams' Bon Chrétien, Emile d'Heyst and Beurré Hardy.

MISCELLANEOUS.

Insectivorous plants suitable for growing in a window (*Constant Reader*).—The only insectivorous plant that is at all likely to succeed in a window is the Sundew (Drosera rotundifolia). This is a British plant usually found growing in very damp situations among sphagnum moss. In the window it might be grown in a saucer well supplied with rain-water and covered with a bell glass. We advise you to procure plants from their native haunts late in the spring when they are making nice growth. They should be moved with plenty of damp moss attached to the roots. Venus Fly-trap would not be a success as a window plant; it requires a warm greenhouse. We advise you to apply to Messrs. James Veitch and Sons, Chelsea, who always keep this plant in stock. We do not think you will find it possible to procure seed.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE POPULARITY OF THE SWEET PEA.

WE have, on more than one occasion, referred to the wonderful progress that has been made in the various branches of horticulture during the last decade, progress which has rendered it well-nigh impossible for even the most alert exponents of gardening to keep pace with the numerous developments that have taken place. In no flower has progress been so rapid and so eventful as in the Sweet Pea. This charming annual has been received with open arms by both amateurs and professionals, and there are not many gardens in the British Isles where the flower does not find a home.

The reason for this immense popularity is not far to seek. No other plant will give us such good returns for a small outlay of money and time, and, happily, the Sweet Pea will thrive in almost any garden. The more the flowers are cut the faster they come, and even a few well-grown plants will give us sheaves of their fragrant blossoms. We know that from an exhibitor's standpoint it is necessary to go to a vast amount of trouble to get those large flowers without which it is useless to expect to win prizes, but for every person who grows Sweet Peas for this purpose there are scores who grow them solely for the decoration of their gardens and homes. For this purpose we are disposed to believe that too much has been made of the elaborate soil preparations that many would have us believe are necessary. We do know from experience in a number of instances that flowers of sufficiently high quality for home use can be grown with ordinary soil preparation, and we believe that many failures which are annually recorded are due to injudicious and too heavy manuring.

THE WART DISEASE OF POTATOES.

A most interesting bulletin, setting forth fully the results of trials conducted in connection with this insidious disease (Synchitrium endobioticum, Percival) at the Harper Adams Agricultural College, Newport, Salop, has just been issued at the special request of Mr. Beville Stainer, M.P., who has undertaken the cost of publication. This disease, which is a most serious one from the Potato-grower's standpoint, is characterised by large, wart-like excrescences on the tubers, and smaller warts are also occasionally found on the stems and leaves. From a map which is included with the publication the disease appears to be at present confined to the South-West, West and North-Western Counties, ranging from Glamorgan in the South to Perthshire in the North, and as far East as Nottinghamshire and Fifeshire.

The experiments were conducted during 1909 and 1910 with two main objects in view, viz., to ascertain what varieties were best able to resist the disease and to find, if possible, a preventive or remedy. Unfortunately, no reliable preventive or remedy has yet been found; but a great deal concerning the life-history of the disease, and subsequently the various methods in which it is distributed, has been tabulated and pilloried for future use. Happily, there are a number of varieties which have proved practically immune from the disease, and it would appear to be the best way of combating it to grow only those varieties in affected areas and to pay due attention to cultivation, manuring and other points, which, if neglected, tend to spread the evil.

During 1909 college trials of early and second early varieties were made at Peplow, and the following proved immune: Snowdrop, Southern Queen, Southern Star, Laird, Peacemaker and a seedling obtained by crossing Snowdrop with Pride of Tonbridge. During the same year trials were held under the auspices of the Board of Agriculture at Blakeley Hill and Peplow, the following varieties being grown: Epicure, Sharpe's Express, May Queen, Ninety-fold, Abundance, British Queen, Conquest, Royal Kidney, King Edward VII., Eldorado, Golden Wonder, Langworthy, Northern Star, Talisman, Up-to-Date and What's Wanted. Of these Conquest, Abundance, Golden Wonder, Langworthy and What's Wanted proved to be immune from the disease.

Last year the experiments were continued at Peplow on the ground used in 1909. Seed of all the varieties found to be immune in 1909 were planted. In some instances new seed was planted beside seed grown in the same ground in the previous year, so that the possibility of varieties breaking down in the second year on infected ground might be thoroughly tested. All these varieties came through the test successfully. Altogether fifty-seven varieties were planted in these

trials, most of them in duplicate, eighteen early, twelve second early and twenty-seven maincrop varieties being used. Of the Early varieties *Aberlady Early, *Milecross Early, Snowdrop, Southern Queen, Southern Star and Twenty-fold were not attacked by the disease; among second earlies *Abundance, *Conquest, Dobbie's Favourite and Supreme proved to be immune; and the following maincrops were resistant: Chiswick Favourite, *Crofter, Discovery, *Golden Wonder, Laird, Langworthy, Prolific, *Provost, Reading Giant, Rector, Schoolmaster, White City, Peacemaker and *What's Wanted. Those marked with an asterisk were considered the best of each section.

The following conclusions which were arrived at should be seriously taken note of and put into practice by all who grow Potatoes in the affected area and even by those in other districts: Continuous cropping with Potatoes must be avoided; all seed should be carefully examined, and, if new seed is used, it ought to be obtained from a district in which the disease does not exist. The application of raw night-soil tends to increase the severity of the attack; boxing seed Potatoes so that they make sturdy sprouts before being planted should be resorted to; some immune varieties never produce good crops unless they are boxed. The indiscriminate use of tools on infected and clean ground should be avoided, and all haulm should be burned directly the crop is cleared from the ground. The concluding note in the bulletin, which states that "The nodules on the roots of Peas, Beans, Scarlet Runners and other leguminous plants have also been attributed to wart disease," causes us some surprise. These nodules are almost universal, and if they were the result of this disease, we should naturally expect to find Potatoes grown in the same soil the following year badly affected. This wart disease of Potatoes is becoming a very serious one, and it is the duty of all who grow Potatoes to do their utmost to stamp it out.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 9.—Société Nationale d'Horticulture de France (Paris) Exhibition. Manchester Horticultural Improvement Society's Meeting. British Gardeners' Association (London Branch) Meeting.

February 10.—Royal Gardeners' Orphan Fund Annual Meeting and Election of Orphans, at Simpson's Restaurant, Strand.

Honour for Messrs. J. Carter and Co.—Messrs. James Carter and Co. of Raynes Park, London, S.W., inform us that they have received the honour of the appointment by Special Warrant as Seedsmen to His Imperial Majesty the Emperor of Germany and King of Prussia, under date January 17, 1911.

Grand Yorkshire Gala, 1911. — The fifty-third annual show has been arranged for June 14, 15 and 16, in Bootham Park, York. The president, the Right Hon. Lord Middleton, will give a special prize of £5 for the most meritorious and attractive exhibit in the show. Four gold medals are offered to nurserymen for non-competitive trade exhibits. As in former years, the schedule of prizes is a very comprehensive one. It may be had from the secretary, Mr. Fred Arey, Davyhall Chambers, Davygate, York.

The coming Daffodil season.—We have much pleasure in announcing that the Rev. J. Jacob's articles on Daffodils, which have in the past been so much appreciated by our readers, will shortly recommence. All the best novelties as they are exhibited will be dealt with by Mr. Jacob, who will visit the leading shows and also the various raisers' collections during the coming season. The Daffodil has too long been neglected; but it is pleasing to note that at last this flower, in all its charming variety, is coming into its own and finding its rightful place in our gardens.

Gift to a Scottish gardener. — Mr. John Brown, lately of Middlebank, gardener to Mr. J. Black, Chapel, Kingskettle, Fife, was the recipient of a gratifying mark of esteem, in the



THE REV. E. ARKWRIGHT. (*See page* 52.)

shape of a gold albert and appendage, from his friends at the annual meeting of the Dunfermline Horticultural Society that was held recently. The presentation was made by Mr. James Dunagan, Superintendent of Parks, who in fitting terms referred to Mr. Brown's work as a gardener and to his prowess as an exhibitor at the Dunfermline shows. Mr. Brown made a suitable reply, in the course of which he stated that he had exhibited at the Dunfermline shows for seventeen years.

Croydon and District Horticultural Mutual Improvement Society. — The report and balance-sheet for 1910 shows the society to be in a very happy condition. Although not accumulating great funds, this society has at least the pleasure of spending well and wisely. An excellent series of lectures and outings held during the past year have been greatly appreciated by the members. The eleventh annual dinner will take place at the Greyhound Hotel, Croydon, on Wednesday evening, February 15, at seven o'clock. The hon. secretary is Mr. H. Boshier, 62, High Street, Croydon.

New Lecturer in Agriculture for Essex. Mr. Robert M. Wilson, B.Sc., N.D.A., County Agricultural Lecturer at the Edinburgh and East of Scotland College of Agriculture, has been appointed Lecturer in Agriculture at the County Laboratories, Chelmsford.

Southampton Royal Horticultural Society.—We have just received a copy of this society's schedule for the summer, Carnation and autumn exhibitions. As in former years, the prizes are good, and should prove a great attraction to competitive exhibitors. The arrangements for the year are as follows: Rose show and miscellaneous exhibits, June 27 and 28; garden fête, July 12; Carnation show and exhibition of Sweet Peas, July 28; Chrysanthemum and fruit show, November 7 and 8. The secretary's address is Mr. C. S. Fuidge, 7, Silverdale Road, Archers Road, Southampton.

A Scottish gardener's compensation case. — An interesting question under the Workmen's Compensation Act has just been decided in the Hawick Sheriff's Court in connection with the death of a gardener. The action was raised by Mrs. Annie Reid, Wilton Dene, Hawick, against the employer of her late husband, Mr. Robert Reid, gardener to Mr. Charles John Wilson, Deanfield, Hawick, for the death of her husband. The sum claimed was £198 5s., being three years' wages, and the amount was claimed on behalf of Mrs. Reid and her two children. The circumstances of the case are peculiar, as it was stated that one Sunday morning in August, when the deceased was brushing the garden soil from his boots after he returned from the garden, he injured his thumbnail, and that bacillus tetanus entered the resulting wound and caused his death by blood-poisoning. It was claimed that this bacillus was common in garden soil, especially where it had been manured with horse-manure. Mr. Wilson was insured under the Act, and the insurance company defended the claim on the ground that the injury did not arise from his employment. Sheriff-Substitute Baillie tried the case, and has given effect to the contentions of the defender, in whose favour he decided, with expenses.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Lilium giganteum.—I have already distributed about 200 large packets of the seed of this Lily, and, as applications from readers of THE GARDEN continue to come in, I am obliged to notify that my stock is now exhausted, and that I shall not be able to meet requests received after this date.—HERBERT MAXWELL, *Monreith.*

The cultivation of Asparagus.—I was very interested in reading the excellent article on the above subject over the signature of your talented correspondent E. Beckett in your issue of January 21. I quite agree with him that agricultural salt is one of the best fertilisers this plant can have; but it must be properly applied. Asparagus may be poisoned by its excessive use, as may any other plant; yet it will bear salting to a great extent without injury. The best method of using salt is to sprinkle the surface of the bed every fortnight, merely applying sufficient to make a perceptibly white coating, commencing in the last week in March and continuing the application till the last week in July. Some cultivators apply a heavy dressing in March, and give no more till the stems are cut down in autumn. But this is an objectionable plan, because the plant has more

salt than it can appropriate in the early stages of growth, and scarcely any when in full vigour and engaged in forming the embryo buds that are to furnish shoots for the next season.—F. W. RICH.

Flowers in a cold greenhouse at Kew. It may possibly interest some of your amateur readers who have cold frames or an unheated greenhouse to know that the following plants were in flower in a cold house at Kew Gardens on January 15: Galanthus Elwesii, G. cilicicus, G. caucasicus, G. Ikariæ, Iris histrioides, I. alata, I. Vartanii, Crocus vitellinus, C. Imperatii, C. chrysanthus, C. sibirica, C. ancyrensis, Adonis amurensis, Potentilla alba, Sternbergia fisheriana, Scilla biflora, S. alba, S. sibirica, Androsace lactea, Iberis gibraltarica and Merendera caucasica.—W. S. C., *Twickenham.*

Quality and flavour in Tomatoes.—A suggestion has been made by a member of the committee of the National Vegetable Society that a single-dish class for Tomatoes should be provided in the schedule of the exhibition the society will hold in the Royal Horticultural Hall on August 30 next, the tests of merit to be body or solidity of flesh in the fruits, with least soft, watery pulp and seeds, and taste in relation to briskness or pleasant flavour. If such a class be promoted, it should lead to good competition, as it would admit fruits of any colour, the primary object being to find the best varieties to consume raw or as dessert fruits. To test solidity of flesh, fruits should not be cut through from stem to apex, but sideways, right through the middle, as in that way it is seen at a glance what portion is solid and what is pulp. The production of seeds, of which as a rule far too many are found in the fruit-pockets, is not a matter of moment as compared with the production of solid, edible flesh. Tomatoes generally produce too many seeds, and if but one-third less of them resulted, so much the better would it be. As to flavour, that would necessarily be a matter of taste. Still, it would not be more difficult to determine whether that quality be absent or present in Tomatoes than in Melons or other fruits. Obviously the creation of flavour in these popular fruits is now of the first importance, as larger quantities are consumed raw than in a cooked state. If the National Vegetable Society can in any way promote such quality it will do good service. Last year, through the kindness of Mr. George Monro, the well-known Covent Garden salesman, a class for six dishes of Tomato fruits was provided at the society's exhibition, the fruits to be of market value. But this year Mr. Monro's prizes are to be given for plants in pots and in fruit, the varieties to be such as have good market value, but yet to show their distinctness and cropping qualities. In such case it will be easy to determine whether they are really distinct in growth, foliage and fruit, as also to find which are the best croppers. Crop relative to height would in such case also be regarded. Still further, there will be a class for six dishes of Tomatoes in which distinctness will be made an imperative feature. In this case scarlet, terra-cotta and yellow coloured fruits can be shown, as well as those round and oval or Plum-shaped. Having regard to the remarkable variety in Tomatoes which exists, there should be no difficulty on the part of growers in competing in this class. The pretty lemon-coloured Chiswick Peach should appear in it, as, indeed, it may also in the class for flavour. Apart from these classes, Tomatoes will figure largely in various special prize classes, and will make prominent dishes in almost all mixed collections of vegetables; hence this popular fruit-vegetable should find very wide and varied representation. The Tomato is one of our most important commercial products in vegetables, and merits the very widest and generous encouragement.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

FORCING RHUBARB.—There should be no difficulty now in keeping a good supply of this throughout the season. Continue to place roots in the forcing-pit. About the middle of the month some roots may be covered outdoors. Seakale, too, must be brought in as the supply demands. The supply of Asparagus must be kept up; this will readily force now on moderately warm hot-beds.

Sowing Seeds.—A sowing of Lettuce in heat should be made now, if not already done. Golden Gem is one of the best early kinds. The first sowing of Celery may also be made now in pans or boxes in fine, light soil. Sow Parsley in boxes for pricking out early in the season. Onions and Leeks for exhibition should be sown in boxes in gentle heat. Sow Spinach in drills about 1 foot apart on a warm border when the condition of the ground is suitable. Continue to sow Mustard and Cress in boxes or in pits. A few Radishes should still be raised under glass. A sowing may also be made in a sheltered position outdoors when the ground is dry enough.

FLOWER GARDEN.

Violets in Frames.—Carefully examine these occasionally and remove dead leaves and flowers. Give plenty of air during warm, genial weather. The lights may be entirely removed for several hours during the middle of the day whenever the conditions are suitable.

Lily of the Valley.—Well-established clumps of these may be dug up and placed in a frame for forcing. Although the flowers may not be so large as those which are produced from retarded crowns, they will be of great service where cut flowers are in constant demand. They will require a moderately warm hot-bed, over which put 1 inch or 2 inches of soil. Place the clumps closely together, slightly cover them with finely sifted soil, and give them a good watering. Keep the pit close till the flowers commence to open, when a little air may be admitted during fine weather.

PLANT-HOUSES.

Roof Plants.—The work of pruning and cleaning climbing plants in the greenhouse must be done now. Fuchsias, which are among the most useful and ornamental for this purpose, may be cut hard back to the old wood, except where extension is desired. Abutilons, Bougainvilleas, Lasiandra macrantha, Plumbago capensis and Heliotropes should be given similar treatment. Cobæa scandens variegata is a splendid plant for covering a lofty roof, but if not severely thinned now it will grow out of hand during the summer months. The glass and woodwork must be thoroughly cleansed and painted if necessary. The plants must also be cleaned before tying them in position. The borders should have a little of the old soil taken off the surface and be top-dressed with a compost consisting of loam, leaf-soil and crushed bones.

Propagating.—Cuttings may be taken from Codiæums which are becoming bare at the base, or they may be propagated by "ringing." Young plants may be potted on. Attend with care to the matter of watering and syringing till roots are again active, or they may shed some of their lower leaves. All the plants in the stove should be overhauled and sponged, and the structure thoroughly cleansed before rearranging the plants.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT GARDEN.

INSECT PESTS.—When pruning and nailing are completed, some attention may be given to the destruction of the various insect pests that infest the fruit trees, or, at any rate, steps should be taken to keep them in check. One of the worst pests that affect Apple trees is that known as American blight, and where this has got a good hold it is very difficult to eradicate, especially where old trees are affected. The rough portions of bark provide a suitable and safe harbour. It will also be found adhering to the roots near the base of the trees just under the surface soil. All loose pieces of bark should be scraped away, and the surface soil round the base of the trees removed to the fire-heap. All affected parts should then be painted over with methylated spirit, or paraffin applied with a stiff-haired brush, well rubbing into the crevices where it is supposed the pest may have found access. The application should be repeated once or twice throughout the growing season, for where the least particle has been overlooked, it increases to such an alarming extent that it very soon spreads through the whole plantation. The careful fruit-grower who has an ambition to possess healthy trees and fine fruit will, at this season, guard against this and other pests by applying a winter wash of caustic soda solution. The best manner of applying is by spraying with a knapsack sprayer in large gardens, or by a hand syringe fitted with a spray nozzle in smaller gardens. Powerful machines, fitted on wheels, can also be obtained, but these are more adapted for very large fruit-growing establishments. In passing, it might be worth noting that the British-made spraying-machines now offered are superior to the earlier Continental makes. A mild day should be chosen for spraying the trees, and the nozzle closed as soon as the liquid begins to drip from the branches. An old suit of clothes and india-rubber gloves should be worn by the operator.

KITCHEN GARDEN.

Pests.—A good deal can be done in the winter treatment of the soil to lessen the ravages caused by fungoid and insect pests throughout the season. Few crops are altogether immune from the attacks of one or the other. It is well known that rotation of cropping is of great importance as regards prevention of diseases, for a fungus that will destroy Cabbages or Turnips will not attack Potatoes or Peas and Beans. As a rule, any given descriptive fungus keeps to one natural order of plants. The difficulty of following a proper rotation of crops, being more felt in gardens than in agricultural practice, calls for special efforts to combat diseases. The disease commonly known as "club" in Cabbages, which attacks all members of the Brassica family and is known in the Turnip crop as finger-and-toe, can be successfully treated by applying a dressing of gas-lime to the ground after being roughly dug in winter; indeed, a light dressing of gas-lime is recommended annually to all the vegetable quarters. This we place on the surface after digging. Where the Carrot fly is troublesome, it is also recommended to apply, in addition to gas-lime, a good dressing of common salt on the surface after the ground has been dug early in the winter, and at the time of sowing apply a liberal quantity of wood-ashes and soot. In all cases of disease we strongly urge the necessity of burning every particle of refuse, rather than leaving it on the ground to be dug in or thrown on the manure-heap to be afterwards distributed over the garden.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

EARLY-FLOWERING SWEET PEAS.

ALL Sweet Pea people know that within the last eleven or twelve years a new early-flowering race of Sweet Peas has come into being. The history of its origin is interesting, inasmuch as it seems to have originated in at least three or four widely separated centres within a space of two or three years. As to what happened in Germany I have no knowledge, except that Benary of Erfurt, in the early years of the last decade, used to advertise certain varieties as good for forcing under glass; but from various sources of information I have found out that at just about the same time sports of wonderful precocity were observed in the under-glass culture of early varieties by both Engelmann of Saffron Walden in England and Zvolanek at Bound Brook, New Jersey, U.S.A., and also by the Rev. E. Arkwright at Algiers, only here the culture was in the open air. In each case it will be observed that practically similar conditions of growth existed, with the remarkable result that almost simultaneously in the three places precocious youngsters appeared which, in other ways besides earliness, departed from the type of their parents.

This new race has a shorter and more slender habit of growth; the leaves are more pointed in shape; the wiry stem is more woody; the perfume is exceedingly sweet and noticeable; they begin life like an unfledged bird, sending up a delicate-looking unbranched stem which needs support when 3 inches or 4 inches high and is one of their most prominent and useful characteristics, inasmuch as rogues are easily detected at a very early stage; and lastly, they commence to flower a long time before the ordinary kind. In the Sweet Pea trials of 1907–8, Mr. Charles Foster reported them to flower three weeks before the others in the open and to be "literally covered with bloom." In Algiers the difference is greater. To quote Mr. Arkwright himself, in an article he wrote in a contemporary on his own garden a year or two back: "But of all these things what I love best are the Sweet Peas, the speciality of Télemly, blooming from Christmas till Easter and only ceasing in May when the English varieties begin." Thus they are valuable, first, for prolonging the season out of doors in our own country; and, secondly, even more so for growing in the ordinary way in gardens in Algiers, the Riviera, Madeira, Malta and similar climates, where they may be sown in August or September. To show their appreciation of them for this purpose the Horticultural Society of Algeria awarded the Télemly Sweet Peas a gold medal in 1907.

In the British Isles their greatest value lies in their adaptability for culture under glass. In THE GARDEN for October 2, 1909, readers may remember an excellent note on their culture by Mr. W. Wallace of Wrotham Hill Park Gardens, and I cannot do better than ask those who intend to try them to refer to it. Late December and January seem impossible times to expect flowers, except in specially sunny places; but as the days lengthen and the sun gets more power, anyone who acts on the cultural hints here alluded to and on those in the little leaflet which Mr. Arkwright always sends out with his Sweet Peas, "will be sure to be delighted with them."

A propos of this I might mention that only last week I received a letter from a small market grower for Wrexham Market, in which he says, "I hope to have a nice lot to cut from at the end of this month (January) and on up to April." The ordinary little seed list issued by the Rev. Edwyn Arkwright contains nineteen shades of colour. In past years all have been grandifloras; but when I was in Algiers last November he told me that he had been successful in making crosses with some Spencers, that he had now got a certain amount of wave into the standard, and that there was a distinct accession of vigour and size both in the plants and in the blooms. One very beautiful one, like a pale Helen Lewis, he proposes to call Edwyn Arkwright. Five of these new waved ones are to be offered in his 1911 list, and I only hope he will have a bumper sale season. [The first-named variety of this section raised by the Rev. E. Arkwright was illustrated in THE GARDEN dated May 21, 1910. —ED.] The entire proceeds are given to the English Hospital at Algiers, of which for many years Mr. Arkwright has been the treasurer and mainstay. How useful and necessary this institution is I had an opportunity of seeing for myself. A young sailor lad from the North of Scotland had fallen from a mast two or three days before my visit and broken his back. His case was hopeless. What a blessing to himself and a comfort to his mother to know that he was being well cared for by his own people, although a stranger in a foreign land! Mr. Arkwright's address is Télemly, Mustapha Superieur, Algiers. I believe the Sweet Peas are only to be obtained direct from him.

JOSEPH JACOB.



THE MOST POPULAR WHITE SWEET PEA: ETTA DYKE.

SWEET PEA ETTA DYKE.

IN its classification of Sweet Peas for 1910 the National Sweet Pea Society places this splendid variety at the head of the whites. Grown in a clump (as in the accompanying illustration) it is very effective. The soil for the clump under notice was deeply dug and manured in November, the seeds being sown in a cold frame early in February. Only four plants were used to form the clump, and the Sweet Peas grew over 9 feet high.

E. TESCHEMACHER.

GATHERING SWEET PEAS FOR EXHIBITION.

PERHAPS a few notes on gathering Sweet Pea blooms for exhibition may be of interest to some readers of THE GARDEN. Like the old saying, "First catch your hare before you can cook it," good blooms must be grown before they can be shown. By "good blooms" I mean nice, well-balanced flowers, on a good long stem, not the monstrosities that we sometimes meet with—coarse to a degree—having the flowers placed several inches apart on their abnormally huge stems, and very often the bottom flower of, say, the four long past its best. I believe in a certain amount of disbudding and feeding, but, to my mind, it is being overdone, and I must throw my small weight on the side of the beauty and refinement of the flower. Always grow more varieties than you want for the class or classes, as the case may be. It is impossible to get them all up to concert pitch, as it were. Some are almost sure to fail you, more or less, from one cause or another; and there is nothing more annoying than to find that, when the show day comes, you have perhaps eleven good sorts, but where to find the twelfth you do not know. The consequence is, you have to do the best you can and include a weak bunch, and by that probably miss taking the first prize. In picking the blooms, handle them as little and as carefully as possible, never allowing your hand to touch the flowers themselves. Put them at once in their respective vases, which you have previously filled with water and placed on a table or bench near the Sweet Peas.

Choose the blooms you want, as far as you can, at the time of picking; it saves a lot of handling afterwards. Where you want about twenty sprays to the vase, take two or three more; this will allow you to discard a few when setting up the bunch at the show, as some may be past their best by that time. Select the flowers for their freshness and good colour, with the top bloom just opened, if possible. Of course, it is quite unnecessary for me



THE SIX VASES OF SWEET PEAS WHICH WON FIRST PRIZE IN THE MAIDEN EXHIBITORS' CLASS FOR MR. G. REID, DOWNFIELD, DUNDEE, AT THE NATIONAL SWEET PEA SOCIETY'S SHOW.

to say that they must all be true to type; but I have heard of heart-burnings after the judging is over. This sort of thing will die a natural death, as we get, and are getting, absolutely true stocks of most of the varieties.

Having gathered the blooms the day before the show, I put them in a cool north room, leaving all the windows open and allowing plenty of air. Do not do as I did once—put them in a cool cellar, an ideal place, I thought, finding out, only just in time, that this damp and badly-ventilated place spotted the blooms and would not answer at all. The mauves and lavenders improve in water; so you can gather these before the others if you wish. The crimsons and reds lose their brightness to a certain degree; so treat these in the opposite way. In fact, I was told that in Scotland, over the Border—where everything about a Sweet Pea worth knowing is known—they cut the reds, pack them separately and run with them to the station just in time to catch the train. This is doing the thing thoroughly, anyway. Next morning, the day of the show, it means probably getting up several hours earlier than usual, and much hard work before you. Take the bunches out of the vases and carefully wipe the stalks quite dry with a cloth, and then wrap each bunch separately in a sheet of tissue paper, placing them in dress or tailors' cardboard boxes. It is a good plan, when showing in several classes, to put each lot of Sweet Peas wanted for its respective class in a box by itself, and write the name of the class and other details on the lid; this saves valuable time at the show.

Prepare the fol age you want, tie it up in bunches, and put it in a separate box. On no account take the Sweet Peas to the show exposed to the air; they travel much better when packed. I once saw a lot of Sweet Peas at a show all wilting and flabby. On enquiring the reason, I was told that they had been brought to the show in an open cart; as the morning was cold and windy, the result was disastrous. Set up the blooms in the best possible way, making each flower stand out separately, and be sure, when the vase is finished, that there are no bad gaps or holes in the bunch. Try to get the bunches as near one height as you can, and so ensure an even lot. I know this is difficult, as some sorts have much longer stems than others.

Setting up or arranging the blooms at the show is very important, and those readers who are not blessed with a clever wife, like I am, are handicapped, many prizes, perhaps more especially at local shows, being lost through this failing. Name each vase neatly and clearly; I think the best way is to have a card hanging by a wire from the lip of the vase, remembering that many visitors coming to the show, not being so well acquainted with the varieties as you are, want to learn the names of the newest and best sorts so as to be up to date.

Ingatestone. E. H. CHRISTY.

THE NATIONAL SWEET PEA SOCIETY'S SHOW.

It was generally admitted that the quality of the flowers staged at the National Sweet Pea Society's exhibition in July last was very high indeed, and in the majority of classes it was difficult to find any really poor flowers. The accompanying illustrations represent the first-prize exhibits in two interesting classes, viz., the maiden exhibitors' class for six vases, distinct, and the Henry Eckford Memorial Class for twelve vases, distinct. The flowers in the first-named class were shown by Mr. George Reid, Downfield, Dundee, and were of exceptionally good quality, the varieties Arthur Unwin, Mrs. Hugh Dickson, Masterpiece and Douglas Unwin calling for special mention. In the other class the flowers illustrated were shown by Sir Randolf Baker, Bart., Ranston, Blandford (gardener, Mr. Usher), and the quality of these may be readily gauged by the fact that no fewer than seven exhibits were staged for this prize.

SWEET PEAS WITH DOUBLE STANDARDS.

THIS, one of the subjects under discussion at the recent conference of the National Sweet Pea Society, should be a very interesting one to all lovers of Sweet Peas, and well worth close attention. Personally, I think it a matter of quite vital importance, as if double standards are to be regarded as the correct thing, or at least not discounted when judging takes place, it will quickly alter the ideals of our raisers, and certainly it will not add either beauty or refinement to the flower.

That there are a great many in favour of double standards was evidenced by the vote taken at the meeting; but I hope the time is very far distant when such flowers will be officially recognised. At present flowers with double standards are a sure sign of gross cultivation, and they are invariably accompanied by a slight fasciation of stem That there is likely to be evolved a race of Sweet Peas with double standards is fairly evident, as one



THE FIRST PRIZE SWEET PEAS SHOWN BY SIR RANDOLF BAKER, BART., IN THE HENRY ECKFORD MEMORIAL CLASS AT THE NATIONAL SWEET PEA SOCIETY'S EXHIBITION IN JULY, 1910.



SWEET PEAS GROWING IN POTS FOR SEED IN MR. ALDERSEY'S GARDEN.

noted raiser of Sweet Peas showed me last summer a few flowers of a variety that gave quite 50 per cent. of double standards, and a very pretty variety it was, too. My friend was, and I believe is, quite hopeful for its future, he believes the market growers will take it up, as it will bunch very well. Of course, if a market grower can make a good bunch of twelve sprays where he previously had to put in eighteen, then it is an advantage to him, providing they will sell equally well.

In the event of varieties being raised that persistently give double flowers, as a double Begonia or Geranium, well, then we shall have to bow to them, and classes might be arranged exclusively for such varieties; but we are a long way from this yet, and I can only hope that we shall be a considerable time before the fine erect standards of our best varieties (such as Sunproof Crimson, Elsie Herbert, Mrs. Andrew Ireland and Nora Unwin) have to give way to what I would term a floppy exaggeration of a beautiful flower.

THOMAS STEVENSON.

Woburn Place Gardens, Addlestone.

SWEET PEA CHAT.

ON THE WRONG ROAD ALREADY.—Why do people write to the papers? This is an easy question to ask, but an exceedingly difficult one to answer. Certainly I shall not attempt to find a solution of the problem. They are sure to go wrong sooner or later, and the chances are that it will be the latter. I have already succeeded in finding a critic who is thoroughly dissatisfied because I did not, in my notes on page 6, laud to the heavens the floppy monstrosities which are sometimes shown as Sweet Peas, and because I expressed the opinion that 24-inch stems were not essential to success in the show. I am, of course, sorry that I should have irritated "A New Year Gardener" in this matter, but I would point out to him that I did not suggest 6-inch wiry stems carrying two flowers apiece for home decoration; in this my critic has gone astray entirely. My point is that the best amateurs do not approve of 24-inch stems and coarse blossoms. Mr. Alexander Malcolm, Mr. Thomas Stevenson and Mr. W. Hopkins, all amateur growers who would not yield to anyone in the world in their keenness for Sweet Peas, and whom most of us would back against the next three men who might be brought along, all support my view that with from 14-inch to 18-inch stems it is as easy, nay, easier, to arrange a perfect vase than it is with those much longer. What applies to exhibition is equally forceful for home decoration, and despite the perverted, but still I am sure friendly, criticism of "A New Year Gardener," I shall hold to my opinion that the ideal length of stem is 16 inches, and I am convinced that to produce these is within the power of every amateur who will put his back into the task and has reasonably good soil and a fairly generous quantity of manure at command. The waved varieties are certainly more graceful and artistic than the smooth forms; but these latter have adherents and admirers, and I hope that they will continue to have for many years to come, for they are very beautiful, and, as I pointed out in the notes which have brought me to trouble, they are valued in the market, no doubt because they pack and travel so splendidly.

DISCORD IN THE RANKS.—It is not a far cry from Sweet Peas to Sweet Peace, and up to the present day the National Sweet Pea Society may be fairly regarded as having lived up to both points, for it has done wonders to increase the popularity of its flower, and it has done its work in the most happy and friendly manner. Now it has got, like myself, on the wrong road, but not, let us trust, for long. The note of discord was struck, as far as can be gathered by an outsider, by a difference of opinion between two brothers who have never in the whole of their lives been wrong and never will be; so who is going to decide which is right now beats me to say. One thing is unquestionable, namely, that both are anxious to see the Sweet Pea and its society forge still further ahead. It will not be very long before the correct way out of the imbroglio will be found, and afterwards there will be that peace in which we gloried of old. Smooth running is necessary to the prosperity of the National Sweet Pea Society, just as it is to any other institution or machine.

SEED-SOWING.—Descending to mundane things, I would remind readers that the first fourteen days of this month are excellent for sowing seeds in pots or boxes in the greenhouse or gently-heated frame. Light, open soil, pleasant moisture, an equable temperature that is always on the cool rather than on the warm side, and protection from enemies of all kinds are, over and above good seeds, required. Few errors are now made by diligent readers; but many still hold to the idea and, what is worse, put it into practice, that the seeds and the seedlings must have a close atmosphere in which to grow; this leads on to worry and disappointment. Hard, strong progress from the start brings the finest chance of superb flowers later on. A. B. ESSEX.

THE ALDERSEY SWEET PEAS.

IN the extremely interesting "Reading on the Cultivation of the Daffodil" which the old veteran, Peter Barr, gave to the Sea Point Horticultural Society of Cape Town on his famous "tour," there is a passage in which he says: "I hold that a man in hybridising imparts the characteristics of his nature to the flowers he is raising." I rather doubt if this could really be substantiated, although one might easily gather numerous examples which seem to partly prove it. I am more inclined to think the explanation of Alphonse Karr's Auricula fancier (in "A Tour Round my Garden"), when he refused to give his friend some charming flowers, which, unfortunately for themselves, poor things, showed the pistil in the centre of the bloom instead of the stamens, is probably the more true explanation of the cause and effect. "I cannot consent that such flowers should come from me; if it were known that I had given them I should subject either my collection or my friendship to animadversion." The true enthusiast who has an ideal is necessarily very hard on his flowers if they do not seem to be coming as he wants them. They get "crushed" like the Auriculas. They suffer; but we, who share with the florist his dream and spirit—*we* benefit.

The "amateur of means, taste and enthusiasm," who "has a lovely garden a few miles from Chester," whom every Sweet Pea expert delights to visit, has given us a type of flower which is "distinguished by the breadth and substance of the standard" and its just-right waviness and its delicacy of tint, for Mr. Aldersey is very careful and discriminating in his selections; and taking *en bloc* those five-and-twenty varieties which are listed as his in the Sweet Pea Note Book of 1911, it may be safely said that no one has produced a more *refined* assemblage of lovely things.

Everywhere Fate seems to have ordained that the Aldersey, the Spencer and the Unwin Peas should be shy seeders. They are "a boon and a blessing to men" when they are in flower, but very provoking at harvest-time, and in this rather cold and low-lying Cheshire garden the usual difficulty has been experienced in obtaining seeds. Partly to surmount this, and partly to ornament his garden, Mr. Aldersey grows a good many in large pots, starting them under glass to bring them into bloom early, and then, when the warmer weather has come, placing them against the garden walls, where the extra warmth and shelter, combined with the restricted root room, tend to promote seed-bearing, while at the same time they form a novel and pleasant feature in the garden. The illustration shows how effective they are and how the pots are secured.

At the present time the name of Aldersey is best known in connection with the beautiful but

inconstant Syeira Lee, but there are many other varieties that either have been, or are being, manufactured in this Cheshire workshop. Among others there are Helen Grosvenor, deep cerise and rose on a buff ground; Ruby, orange scarlet—in the distance appearing a bright flame colour; Romani Rauni, salmon pink on a cream ground; Royal Scarlet, scarlet sunproof self; Amethyst, standard Bishop's violet, wings peacock blue sheen; Topaz, ivory, shading to buff; Sea Shell, pale lilac rose on a cream ground; Tortoiseshell, shrimp pink or prawn red; and Mother o' Pearl, the old-fashioned plumbago blue of surpassing sweetness.

It will be good news to many that for the future all these new creations are to be offered to the public direct from the raiser by the new firm of Aldersey and Marsden Jones, who intend to make their *debut* as traders in seed specialities at the "National" show in July. Mr. Jones is the son of a Cheshire clergyman, has a wide knowledge of British wild flowers, and is particularly attracted by the fascination of selection and hybridisation. It is interesting, too, to know that Mr. Aldersey's second son has served his time in an Irish nursery and intends to take up gardening as a profession.

JOSEPH JACOB.

COLOURED PLATE.

PLATE 1418.

SIX POPULAR SWEET PEAS.

WHEN one considers the comparatively short time that the Sweet Pea has been cultivated with any degree of enthusiasm, it becomes a matter for real surprise that so wide a range of colour should have evolved in so short a period. Surely the Queen of Annuals could not have shown better response to the zeal and attention that have been bestowed upon its improvement. In its wild state in Nature, the Sweet Pea grows only 2 feet or 3 feet high, producing poor-looking flowers, usually two on a stem, with notched and hooded standards of a magenta-chocolate hue and wings to match, while the keel is of that purple tint so much despised by the modern grower. It seems but a few years ago that the now discarded bicolours were so much in evidence, when mention of the Sweet Pea brought to mind the mixed rows usually associated with old-fashioned cottage gardens. To-day it is the exception to grow mixed Sweet Peas; for are there not colours of surpassing beauty and sufficient to supply the most fastidious taste? The colours range from the purest white to deep maroon, including reds and blues of a decisive tone and most lovely art shades, in which orange, cream, pink, or mauve blend in perfect harmony. There is, however, one colour missing that is much desired—a fortune awaits the man who can raise a stock of a good clear yellow Sweet Pea. Rumours of such a novelty have been heard, but, so far, not supported. It so happens that the two colours, blue and yellow, seldom occur in the flowers of any one kind of plant; that is to say, if one colour is present, then the other is generally wanting. There are, however, a few varieties of Sweet Peas approaching the much-sought-after yellow colour, and foremost among them is Clara Curtis. As may be seen in the coloured plate, the flowers are of a deep primrose shade. So highly were the floral committee of the National Sweet Pea Society impressed with this variety that it received a first-class certificate at the trials in 1909. Another variety in which deep primrose is seen is Mrs. C. W. Breadmore. It is a beautiful flower, with a rosy picotee edge, much resembling Evelyn Hemus; indeed, there is little to choose between them. The lavender variety suffused with mauve is Asta Ohn Spencer. It always produces very large flowers, and is very telling when shown for exhibition. King Edward Spencer, a fine rich crimson, likewise produces large flowers, and takes a leading place among exhibition varieties. Of the two remaining varieties we have Douglas Unwin, a novelty of 1910, which bears self maroon flowers of the largest Spencer type, and Marjorie Willis, a grand variety holding a prominent place among the rose and carmine shades. The coloured plate has been prepared from flowers kindly supplied by Mr. W. J. Unwin, Histon, Cambs.

SWEET PEAS IN PUBLIC GARDENS.

THE accompanying illustration shows one side of an avenue of Sweet Peas grown in the Public Gardens of Ayscoughfee, Spalding. The length of the avenue was 35 yards. The number of varieties of Sweet Peas, all of which were very fine, was over twenty, and they grew to a height of 8 feet. They were planted in the middle of March, and during the season were much admired, being admitted to be one of the finest examples of the successful cultivation of Sweet Peas seen anywhere in the district. Mr. Tero, the gardener at Ayscoughfee, who is shown in the illustration, and under whose care they were grown, stands 6 feet 2 inches high, and this will be a good indication of the height to which the plants attained.

UNFIXED SWEET PEAS.

IS THEIR DISTRIBUTION JUSTIFIABLE?

ONE of the greatest disappointments that a Sweet Pea enthusiast can have is to find that some variety on which he has expended much labour and money, and from which he has been led to expect marvellous results, proves to be nothing better than a hopeless mixture; but there are few growers who have not had such an unpleasant experience. Indeed, so frequently have such disappointments occurred that they have even threatened the popularity of the Sweet Pea.

Happily, the last two or three years have shown an improvement in the fixity of most varieties, and the improvement promises to continue. This is due to the recognition on the part of the public that reliability is possible, even in the case of the Spencer varieties, and on the part of the seedsman that a good reputation is a most valuable commercial asset. Unfortunately, there are a few varieties that have not shared in this general improvement, and which, from whatever source they are obtained, continue year after year to yield a considerable crop of rogues. Several varieties seem able to resist all the arts of the raiser, even when those arts are applied over a number of years. It is sometimes argued that these unfixed varieties ought never to be placed on the market at all, and in the case of some varieties this argument is undoubtedly sound, as they have proved disappointing to everyone who has grown them. Of other varieties, however, the reverse is the case, as the unfixed Sweet Peas include some that are unquestionably superior to any others of the same colours.

Let us take examples. Of the deeper pink Sweet Peas we find Audrey Crier, Syeira Lee, Olive Ruffell and Marjorie Linzee, all far from fixed, but surpassing in excellence every fixed variety on the market. Every exhibitor who has won through his Audrey Crier, and who has been charmed by the beautiful Syeira Lee or Olive Ruffell, will agree that it would be a sin to banish these varieties from our gardens. Again, when Helen Lewis and many other leading varieties were first placed on the market, it was found that they threw a considerable proportion of unwaved flowers, but the true flowers were of such merit as to far more than compensate for their unfixity. There are few keen growers who, if asked whether they would have a stock of Helen Lewis that would give 50 per cent. of rogues or go without, would not prefer the former alternative. It is no disgrace, therefore, for a seedsman to list unfixed varieties of Sweet Peas;



SWEET PEAS IN THE PUBLIC GARDENS AT AYSCOUGHFEE, SPALDING.

but if he does offer such varieties, it is only common honesty that he should in his catalogue draw attention to the fact that they are not fixed. Not only this, but he should state the proportion of true plants in the stock from which the seed was saved, and also, if possible, the nature and percentage of the rogues. Such information is very useful to a grower, for as a general rule an unfixed variety will throw each year the same rogues in about the same proportion. Some seedsmen already offer this information, although perhaps not very fully; and in the last two seasons the writer has had the pleasure of growing a stock of Olive Ruffell that was advertised to throw 50 per cent. true and 25 per cent. each of Constance Oliver and Paradise Carmine, and behaved almost exactly as advertised. In the same way Audrey Crier can be obtained which will throw no other rogues than Helen Lewis and Mrs. Hardcastle Sykes, although with the writer it has hardly been so reliable in its unfixity as has Olive Ruffell. Syeira Lee is probably identical with Miriam Beaver, Anglian Pink, Doris Usher and several others, and a good stock should not throw any other rogues than a very bright Helen Lewis and a variety near Mrs. Henry Bell; but probably the majority of stocks in commerce will throw also unwaved flowers. Marjorie Linzee throws John Ingman and Countess Spencer, and is probably identical with Olive Bolton.

It will be seen that the rogues of good strains of the unfixed varieties are frequently of use for exhibition in other bunches, and, even when the rogues have unwaved standards, their removal will give valuable additional room to the plants remaining.

It may be interesting to note that as an alternative to the growing of unfixed stocks, recourse may sometimes be had to cross-fertilisation, for we find that if good stocks of Constance Oliver and Paradise Carmine are crossed, the resulting plants will in the first generation all be Olive Ruffell. Likewise Helen Lewis crossed with Mrs. H. Sykes will give Audrey Crier, and Countess Spencer crossed with John Ingman will give Marjorie Linzee. In the same way a strain of Syeira Lee pure for one year should be obtainable. In the second generation, of course, segregation will take place.

Woodford, Essex. G. F. DRAYSON.

AN AVENUE OF SWEET PEAS.

ONE of the features that appealed most to the members of the National Sweet Pea Society on the occasion of their visit to Messrs. Dobbie and Co.'s seed farm at Mark's Tey, Essex, last summer was the magnificent avenue of Sweet Peas illustrated herewith. This avenue is 200 yards long, and 100 clumps of Sweet Peas were planted on each side of the path, these being 6 feet apart. The seeds for these clumps were sown under glass during October, 1909, and the seedlings were planted out the following March, the first flowers opening on June 4. The varieties used included Masterpiece, Arthur Green, Edrom Beauty, Sunproof Crimson, Isabel Malcolm, John Ingman, Clara Curtis, Mrs. C. W. Breadmore, Evelyn Hemus, Mrs. A. Ireland, Nubian, Tom Bolton, Earl Spencer, Princess Victoria and Mrs. Hugh Dickson. Between the clumps of Sweet Peas the ground was carpeted with Mignonette Dobbie's Giant, and the effect was exceedingly pleasing. The seed of this was sown in small pots in February and the seedlings planted out in April, three potfuls being planted between each two clumps of Sweet Peas thus * * *. When we saw this avenue at the end of July the Mignonette had practically covered the ground, and some of the large flower-spikes were over 18 inches in length. We illustrate and describe this avenue because it was unique and beautiful. Of course, there are not many gardens where so much space could be allowed, but the idea could easily be carried out on a much smaller scale and with spring-sown Sweet Peas.



AN AVENUE OF SWEET PEAS EDGED WITH MIGNONETTE AT MARK'S TEY.

THE TOWN GARDEN.

BULB-GROWING IN FIBRE.—The cultivation of bulbous and allied plants in prepared fibre in bowls appears to be proceeding apace, if one may judge of its progress by the somewhat frequent exhibits of pottery bowls, artistic and otherwise, that are to be seen at the fortnightly meetings of the Royal Horticultural Society. That it is a phase of gardening calculated to meet a want few will attempt to gainsay, albeit the failures at the present time probably almost equal—or possibly surpass—the successes. A chief recommendation is that it enables the villa resident to indulge in the pleasure of flower-growing within certain limits, while from the standpoints of cleanliness and convenience it might reasonably appeal to a large number. The majority of bulbous-rooted plants intended for this work will have been planted weeks ago, and, being now well rooted, should receive constant attention.

HOW FAILURES OCCUR.—Just how or where failures creep into any method of cultivation it is difficult to say, though in this particular instance they are largely the outcome of too much or too little water at the roots and unsuitable surroundings—the arid condition of the room in which they are grown and the presence of gas, for example, being among the more fertile sources of such failures. In Nature, as in the greenhouse or garden, a plant benefits largely because of the ever-present moisture-laden conditions. These in the sitting-room are almost entirely absent; hence we see brown-tipped leaves and yellowing flower-buds in place of the looked-for harvest of blossoms. By keeping the bowls of bulbs as long as possible in a cellar or frame or outhouse a more natural growth will ensue, with the probability of better results.

UNDUE HASTE is also a frequent cause of failure, and particularly so where little or no past experience is at command. After planting his bulbs in the open garden, the amateur is usually content to wait till they appear. It is not so when the same things are planted in pots or bowls, for then, often enough, immediate results are looked for and efforts made to obtain them. To plant the bulbs and take them forthwith into a warm room is to court failure from the start, and should be avoided. To this alone, indeed, is a large percentage of the failures due. It is disappointing, too, since it so frequently follows the purchase of the best of bulbs. For these reasons, therefore, a little more patience in such matters is urged. In season or out of season a poorly-grown plant satisfies no one, while a well-grown plant at any time is the admiration of all. There is no school like the school of experience, and if the amateur can be persuaded to wait a while, endeavouring to approach more nearly to the natural flowering period of any particular plant, rather than attempting to excite it before its time, the error and the remedy will be plainly revealed.

SWEET PEAS.—So desirable and beautiful is the Sweet Pea in the town garden, and so suitable therefor, that I feel sure the specialists who write so much about the flower in THE GARDEN will not grudge me the space I need to briefly direct attention to it at this time. The soils of most town gardens in February are not, as a rule, of a genial nature; hence I would suggest first raising the seedlings in boxes, pots or pans, subsequently transferring them to their flowering quarters. For such a method much might be said in its favour. It is at once the surest safeguard against overcrowding, the greatest enemy to successful cultivation. To a large extent it minimises losses of the seeds at the moment of vegetating by reason of wet, while it is also a great saver in point of time. If the seeds are sown 1 inch or more apart in shallow boxes, or placed half-a-dozen around the inside rim of a 3-inch pot, just covering them with dryish soil, all should be well. The pots or boxes may be placed in larger receptacles, and covered with a sheet of glass to keep off the rain. No water should be given the seeds at the time of sowing, since an undue amount of moisture in common with deep burying of the seeds is calculated to cause failure. Meanwhile the garden soil can be brought into better condition. S. N. N.



Mauve, ASTA OHN
Cream, CLARA CURTIS

Rose Pink, MARJORIE WILLIS
Cream with Pink Edge, Mrs. C. W. BREAD

GARDENING FOR BEGINNERS.

CULTURE OF SHALLOTS.

SURPRISE is frequently expressed that Shallots are not grown more extensively by amateurs, seeing that their culture is so very simple and that they are so highly appreciated for culinary purposes.

The Shallot is a well-known vegetable that was introduced into England as long ago as the year 1548. Its native habitat is Palestine, and its botanical name is Allium ascalonicum, derived from the place of its origin in the Holy Land near the city of Ascalon.



1.—PLANTING SHALLOTS ON HEAVY LAND WITH A DIBBER.

The uses to which Shallots can be put are mainly for pickling and for flavouring soups. It is reputed that at one time they were extensively grown by cottagers in Worcestershire, who were able to dispose of their crops at excellent prices for the purpose of making sauce. Few bulbous-rooted vegetables are more easily cultivated, and they may be grown in the same quarters for successive years provided the ground is deeply dug and heavily manured each season. With advantage they might be given a place in every villa and cottage garden, and allotment-holders might add to their comparatively meagre list of vegetables a subject that invariably yields a handsome return for a small outlay.

It is well for the grower to remember that the Shallot succeeds in any aspect but a northern one. A good open position, however, is much to be preferred, and there need be no fear as to the result when such quarters can be allocated to it. An autumn preparation of the ground is distinctly advantageous; but as this period is past, the most should be made of the present season to make up for the delay. As soon as possible, therefore, such quarters should be well trenched, incorporating at the time a good dressing of partially-rotted farmyard or horse manure. Some very successful growers are of the opinion that animal manures should not be used directly for the cultivation of the Shallot. A dressing of superphosphate and kainit, using 1½oz. of the former to 1oz. of the latter, and forking in this quantity to each square yard previous to planting, will subsequently prove the value of these excellent fertilisers when used in the proportions prescribed.

The Shallot may be raised quite easily from seed if sown in prepared drills in March; but in these notes it is proposed to confine the advice to the method of increasing this subject by the use of offsets or cloves. An old-fashioned plan that prevailed in many rural districts was to plant Shallots on the shortest day and lift them in the early summer—some say the longest day; but it is questionable whether there is any logic in following such advice. Much better results are more likely to accrue when the planting is done in late February or early in March. In a few exceptional positions, where the soil is light, friable and well worked, the planting of the Shallot bulbs may be done early in February; but as a general practice it should be regarded as a somewhat doubtful one to commence thus early.

Before planting, the surface soil will need some preparation. Lightly fork it over, breaking it up into a friable condition, subsequent to which rake down, so that the quarters are neat and level. For ordinary purposes the bulbs or cloves should be planted in rows 1 foot asunder, and a distance observed between the bulbs in the rows of some 8 inches or 9 inches.

In heavy soils, where the land is cold and the texture stiff, a dibber should be used for planting, pressing the soil somewhat firmly round about the bulbs. Fig. 1 represents a small section of a bed where the soil is heavy, and where the use of a dibber has been found necessary to make small holes to adjust the bulbs satisfactorily in position. Where the soil is more friable, planting is very easily accomplished. In such light soils the cloves, or the whole bulb if not over-large, should be pressed into the soil so that the apex is just above the surface, as shown in Fig. 2.

Very soon after planting Shallots begin to form roots, and as a consequence quickly give evidence of growth. As was mentioned earlier, by the end of June the crops begin to mature, and to assist in this matter it is an advantage, especially in heavy ground, to remove the soil round about the base of the bulbs. By these means the latter obtain better exposure to the ripening influence of the sun. When the crop is ripe—and this is generally determined by the leaves turning yellow—the bulbs should be lifted or pulled up, after which they should be thoroughly dried by exposing them in an airy, sunny place, turning them over every day or two; this will assist the process of drying. Subsequently tie the bulbs into ropes and hang in a cool, dry place, or, if preferred, store them in shallow layers in a cool, dry, airy room, examining them periodically to remove any that may be damaged. There are two distinct types of the Shallot in general cultivation—the ordinary cluster-bulbed type and the Russian Shallot, a large brown-skinned sort that seems to have ousted the smaller kind from popular esteem, although the latter is better appreciated by connoisseurs.

D. B. CRANE.



2.—ON LIGHT SOILS THE BULBS MAY BE PLANTED BY HAND

A BEAUTIFUL GREENHOUSE LILY.

A RICH harvest of flowers will be expected from the plants of Lilium Harrissii during the coming spring months. Healthy plants always afford the cultivator much satisfaction; but it is a fact that every year there are great numbers that fail to bear a single blossom, and others whose flowers are insignificant-looking or come stunted and malformed. Undoubtedly these plants thrive best when subjected to a good heat. A low greenhouse temperature at this season is bad for them, as the growth is seriously checked. Another cause of failure is the uncleanness of the plants. Green aphides infest the ends of the growing stems,

clustering around the newly-formed flower-buds, and when these pests are allowed to lodge there undisturbed for a time they cripple the buds, and then the latter do not develop fully and freely. Curiously enough, the aphides spread more rapidly when the plants are placed in a warm structure with a nice growing atmosphere. At this stage the cultivator must closely watch the foliage and at once free it from all such pests by syringing with tepid and slightly soapy water. A top-dressing of loam and rotted manure will also greatly increase the size of the flowers. SHAMROCK.

BERRY-BEARING SOLANUMS.

BRIGHT colours are always much appreciated in the autumn and winter time, and the berry-bearing Solanums, called by some "Winter Cherries," afford us a grand display just when the short, dark days commence. We must not wait, however, until the near approach of autumn before we begin to provide a stock of plants. It is necessary to raise the plants either from seeds or cuttings, or both, early in the springtime. I advise the inexperienced cultivator to sow seeds, and then confine the resultant plants to flower-pots throughout the season. Some persons put out the plants in the borders in the summer-time, and lift and repot them in September. Plants raised from cuttings may be so treated; but the beginner should, at least for one year, confine the culture to seedlings. Sow the seeds in pots or pans, and retain the latter in a warm position in the greenhouse until the seedlings appear; then remove the pots so that more air, without draughts, can reach the young plants to keep them sturdy. Transplant them once into pans prior to potting them separately. Fibrous loam one-third, and leaf-soil two-thirds, with plenty of sand, make a good potting compost in the early stages, more loam being added later on. A small quantity of soot may be mixed with the compost after the first potting. Keep the young plants in cool frames until the end of May; then place them in the open, and keep them there until the early part, or even the end, of September. When the plants have filled their flowering pots—those 6½ inches in diameter—feed liberally and often with clear soot-water. If the foliage is syringed and kept free from insect pests, a splendid crop of berries will be produced. Judicious feeding has much to do with the increased size of the latter, and soot-water imparts to the leaves a dark green colour which intensifies the richness of the berries. AVON.

THE COLOUR BLENDING OF SWEET PEAS FOR DECORATIONS.

"THE Sweet Pea," says the Rev. W. T. Hutchins, the great American Sweet Pea specialist, "has a keel that was meant to seek all shores, it has wings that were meant to fly across all Continents, it has a standard which is friendly to all nations, and it has a fragrance like the Universal Gospel; yea, a sweet prophecy of welcome everywhere that has been abundantly fulfilled."

My task has been set me by the Editor of THE GARDEN, and I must try to do my best to interest my readers for a brief space of time, and in a few words tell them a little, by way of hints and suggestions, as to arranging the flowers for decoration. Far abler pens than mine have written on this theme, and yet we may tell ourselves over and over again that when we begin to talk of these delicate and lovely flowers (whose name is legion) the subject is well-nigh inexhaustible. Their virtues are so many, and so great their beauty, that there is always left some food for comment. We may safely say no flower has leaped into the people's favour so quickly as the Sweet Pea, and we believe, despite the vagaries of fashion, it has come to stay. It is pre-eminently a decorative flower, and by reason of its many-sidedness it lends itself most artistically and delightfully to all decorative purposes, as well as to the garden and show-board.

Its application to the dinner and drawing room tables has become an art. Go, for instance, to any of our great shows (even apart from our greatest, the National Sweet Pea Society's, at Vincent Square), and during the summer you will find that the Sweet Pea, next to the Rose, is the "leading lady." In our day the valuable varieties are the waved or Spencer type. If you are dealing with luncheon-tables and daylight functions, you may safely use all violet and mauve shades; so also may you in the decorating of motor-cars. I call to mind two especially which I had the pleasure of judging last summer in company with that past-master in the art, viz., Mr. R. Forester Felton of Hanover Square, and we awarded the premier prize to two most elegantly-decorated cars, one wrought in mauve and the other in red. For artificial light mauves and violets are best avoided, and colours that light up well are to be chosen for preference. All shades of red—rose, pink and crimson—are happy in association; and pale shades to start with at the top, with deeper shades or gradations below, are to be desired. Much, however, must be left to the artistic and poetic feeling of the person arranging the flowers. Without this a wrong note may be struck, and so upset the harmony and ruin the exhibit or arrangement.

The foliage, too, must be studied. Nature provides the best—the Sweet Pea's own; but for the table Asparagus plumosus may often be associated, also coloured leaves of Crotons and other plants having the same tones as the Sweet Peas themselves. When speaking of decorative classes you open a wide door, and arches, mantel-pieces, tables, bouquets, bowls, baskets, vases, sprays and button-holes rise up before us in imagination. In table decorations I would suggest that two or three varieties of colour be employed, and I would add a few hints which may be helpful to decorators. The colour and style of the dining-room or banqueting-hall is a very powerful factor to reckon with, and must be duly considered in the scheme. All the paler shades are better suited to artificial light. If the room is of Oak panelling, the palest colours should be employed, and when the decoration of the room is white, pale yellow, pale pink or green, deeper shades may be used with advantage. Orange and scarlet tinted flowers associate well, and are very happy together, the general effect being good with such an arrangement, and a contrast may be brought about by using in conjunction cream or white varieties. It may be interesting to note that more than a hundred years ago someone wrote this verse:

Masters search every garden round
And Miss pray tell to me
If any flower can be found
To beat the scented Pea.

May I close with this little poem I met with a short time since?

Oh! blossom poised for flight,
Yet resting still,
That butterflies may light,
In quivering delight
Just when they will.

Oh! colour petals rare—
Rose blushing red—
White, azure, each more fair;
Summer remains our share,
Till thou art shed.

Halstead. H. C. PHILBRICK.

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN FEBRUARY.

ON New Year's Day many persons close their vineries in order to force the Vines. Very early forcing of Vines tends to weaken their constitution, so that those who wish to have excellent crops of Grapes year after year for a long period must not unduly force them. Vines that are allowed to break into new growth almost naturally—that is, without the aid of much artificial heat—retain their strength and good fruiting condition for a long period.

Those Vines that were started at the beginning of the year will now require very careful attention. It is, of course, unwise to raise the temperature of the structure to a high degree at this season of the year and while the buds are breaking into growth. If a high temperature is maintained, the new shoots will be weakly. The right thing to do is to cause the buds to break slowly and strongly. During the first two or three weeks the pipes must be kept nicely warmed both day and night and the rods syringed once daily—each morning. There must be no afternoon syringing at this season, because the rods do not dry readily, and it is important that they should be dry before sunset. The syringing is done to soften the buds, and thus enable the new growth to break through readily. When the young shoots are about 1 inch long all syringing must cease; if continued it would weaken the foliage. The water should be of the same temperature as that of the house, so amateurs must keep the water in it for twenty-four hours for that purpose.

Where Vines have been started for about one month, the young buds will be just breaking through the cap enclosure, and cultivators must be very careful about the heating of the structure. Frost does not injure Vines while they are dormant, but a very slight frost will kill the young shoots, and excessive cold will chill them.

The day temperature at this stage must range about 55° and the night 50°. If the temperature is raised 10° more by sun-heat, never mind—it will do good, and there will be no need to open the ventilators; indeed, if they were opened at this season, harm would be done, as the cold air would give the Vines a check. When the sun shines brightly, allow the fire to burn more slowly. Regulate this by closing the draught dampers a little, but see that the pipes are duly warmed before the sun-heat has declined. About midday, while the sun shines brightly, damp down the path or floor of the vinery with a rosed watering-can. This action will ensure quite sufficient moisture in the structure.

NEWLY-PLANTED VINES.

A young Vine needs very careful treatment in order to get it well established. Never force a newly-planted Vine much. Allow the buds to break under the influence of the sun-heat husbanded in the vinery and heat from the hot-water pipes used for the purpose of keeping the temperature at about 55° during the daytime and 50° at night. Young rods that were not cut down to the desired height—about 18 inches from the border—at planting-time must be painted with styptic or painters' knotting to prevent undue bleeding and consequent weakening directly they are cut back, if this is done now. If pruning back is not done at all, disbudding should be resorted to. This work is done as follows: When the new shoots commence to grow and are about 1 inch long, begin at the extreme end of the rod and rub the shoots off down to the point where the pruning back of

the young rod would have taken place. Then leave one well-placed shoot for a leader, and train one on each side to form side branches. No attempt must be made to cut off the denuded portion of the rod this spring. Allow it to remain until the Vine is growing in the summer; then cut it off, as there will be no loss of sap at that time. A nice mulch of stable manure on the border will do good in several ways. The ammonia from it will strengthen the new shoots. B.

THE GERMINATION OF SWEET PEAS.

PERUSING the numerous Sweet Pea lists of this season, the occasional occurrence of "germination—95 to 100 per cent." in the testimonials of satisfied persons have caused me many moments of envy, these moments occurring particularly during my inspection of those varieties which have cost about 6d. per Pea. (In one catalogue there is a Sweet Pea listed at three seeds for 5s.—I wonder who are the buyers!) Last autumn the seed was procured from the leading and most reliable growers and raisers; in addition, home-saved seed was also sown. On the whole the results have been fairly satisfactory, but there is ample evidence of much of the seed of last year having been badly ripened and harvested. This is stated without reservation, because home-grown seed that was saved late in the past season has been the worst offender.

Respecting the material in which germination has occurred most freely and regularly, the conclusion formed is that it matters not in what the Peas have been sown. They have been sown in good rotten turfy loam; in a compost of loam, leaf-mould and grit; and in soil which has been thoroughly sterilised. Unripe seed has failed in each, while sound, good seed has germinated freely and well. The opinion is also formed that germination takes place equally well in pots, pans or boxes, provided there is a sufficiency of moisture.

The following experience of a few odd Peas which were accidentally dropped on the stage of a cold greenhouse was most interesting. The stage consists of corrugated iron sheeting covered with rough limestone chippings, which retain the usual amount of moisture present in a cold house. These Sweet Peas not only germinated, but they grew; in fact, they grew to have roots 2½ inches long and stems, on which two leaves formed, to a length of 2¾ inches. There was no trace of soil among the chippings to encourage such growth.

A very considerable proportion of seed has become covered with mildew and turned quite bad, this applying particularly to the lavender varieties. Perhaps the expert will cavil at this and say, "Of course, the Peas were sown too deeply, or kept too moist, or the soil contained fungus." I would fain reply to the expert that some of the *same* varieties were sown half an inch below the surface, some on the surface and some barely covered with soil, some in compost, some in loam and some in sterilised soil. The results were much the same in each instance.

It was most noticeable that the earliest Sweet Pea seeds to be attacked by mildew or fungus were those which one was fully aware were *unripe*, although dry and hard in appearance when sown. When a fungus-covered Pea was picked out of the soil, it was either completely rotten or the cotyledon or kernel was quite green in colour, conclusively showing unripeness. Experience has also shown how much that Mr. Thomas Stevenson states in his book concerning early sowing is true, for germination was infinitely better when sown during the last few days of September and first week of October than when sown late in October or early in November. It is hardly necessary to remind even the tyro that chipping the outer covering of the Pea is an immense time-saver and of the greatest assistance in germination.

It would not be out of place, I think, to indicate the varieties which have germinated well with me, and again reminding you, kind reader, that these are but the experiences of an amateur:

	Seeds Sown.	*Plants.*
A. N. Dickson	42	38
Audrey Crier	60	58
Chocolate	50	50
Clara Curtis	50	50
Countess Spencer	50	45
Earl Spencer	50	50
Elsie Herbert	60	60
Eric Harvey	10	10
Flora Norton Spencer	44	43
Freda Unwin	10	10
George Herbert	50	46
Gladys Burt	50	48
Helen Lewis	46	42
John Ingman	48	46
Mabel Cole	10	8
Marjorie Linzee	50	50
Mrs. Alec Ware	50	50
Mrs. Geo. Charles	46	44
Mrs. Hardcastle Sykes	50	50
Mrs. Hugh Dickson	50	50
Mrs. R. Hallam	40	40
Mrs. Watson	60	58
Marchioness of Tweeddale	50	46
Nancy Perkin	36	33
Nubian	40	38
Nettie Jenkins	12	12
Olive Bolton	44	43
Queen of Norway	50	49
Romani Rauni	60	58
Scarlet Monarch	48	46
Sunproof Crimson	50	50
W. R. Beaver	50	45
Tom Bolton	50	46
Mrs. Henry Bell	50	46
Zephyr	50	44
Zarina	26	25
Paradise Bronze	50	48
Mrs. C. W. Breadmore	60	60
Mrs. Andrew Ireland	50	48
Lancashire	50	46
Freda	50	49
Helen Grosvenor	50	50
Cherry Ripe	50	41

My failures I will not say anything about.

Malpas, Cheshire. J. E. PHILLIPS.

LEGAL POINT.

Tenant and fruit bushes (*Constant Reader*).—The obligations of a tenant with regard to trees depends on the kind of holding and any express provisions in the lease or agreement dealing with the matter. Assuming that the lease is silent, an ordinary tenant is merely bound to abstain from waste, and is not allowed to remove fruit trees, Rose bushes or Box borders. The usual express covenant in a lease of a house which has a garden of any pretensions obliges the tenant during the term to "maintain the garden and pleasure grounds in good order," to preserve the timber trees, fruit trees and shrubs, and to replace such of the fruit bushes and shrubs as may die. If the tenant merely covenants to leave the garden and trees in the same condition as he finds them, he would, apparently, be excused from the performance of his covenant if the trees were destroyed by *vis major* or the act of God. When there is merely a precise covenant to replace dead trees and no reference to "maintaining" the garden in good order, the tenant would not be bound to lop or prune the trees, as the general principle is *expressio unius est exclusio alterius*.—BARRISTER.

THE EDITOR'S TABLE.

LILIES OF THE VALLEY.

Mr. T. Jannoch, the well-known grower of these fragrant flowers, sends us some extra strong and beautiful spikes of his selected Fortin's strain. These, we think, are the best examples of the flower we have ever seen, and reflect great credit on Mr. Jannoch.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Twelve Sweet Peas for garden and house decoration (*Doubt*).—After a struggle we have managed to get down the selection to thirteen, and will leave you to cut out one according to your fancy in regard to colour. It should be particularly noted that the varieties are chosen entirely irrespective of whether they are old or new, cheap or dear, waved or plain, the special object being healthy, vigorous growth and persistency of flowering. The colours you will easily get from a catalogue. They are King Edward, Lady Grizel Hamilton, Dorothy Eckford, Miss Willmott, Mrs. Walter Wright, Countess Spencer, Mrs. Collier, Mrs. Andrew Ireland, Asta Ohn, Eric Harvey, Evelyn Hemus, Mrs. Hardcastle Sykes and Helen Pierce.

Sweet Peas and chemical manures (*W. H. T.*).—Apply 5oz. of superphosphate of lime and 2½oz. of sulphate of potash to the square yard, working it into the top spit at least three weeks in advance of sowing the seeds. The nitrate of soda and sulphate of ammonia are best used as stimulants when the plants are coming into flower. The proper quantity is 1oz. to the square yard, irrespective of which is used.

THE GREENHOUSE.

Carnation foliage diseased (*Mrs. R. H.*).—The foliage is attacked by a very common disease known as Carnation rust. The best remedy is to remove all leaves which are badly attacked and to have them burnt without delay. Afterwards the plants should be sprayed twice a week with a solution of methylated spirit and water, one part spirit to 100 parts of water by measure. Plants which are very much infested should be burnt together with the soil and roots. Cuttings must on no account be taken from diseased stock.

About Begonia culture (*J. D. M.*).—The names of the Begonias are: 1, Begonia Rex Adolphe Pollock; 2, B. metallica; 3, B. Carrierii; 4, B. semperflorens rubra; 5, B. discolor. These may during the winter be kept in the greenhouse where a temperature of 50° to 60° is maintained. They should at the time be kept rather dry, but by no means parched up, unless any of them are in flower, when more water must be given. The variety of B. Rex should be stood in the warmest part of the structure. Except that this last-named needs a little more heat than the others, all of them may be given much the same treatment. Kept somewhat quiet during the winter, they may all be repotted in March in a mixture of loam, leaf-mould or peat and sand. The soil will need to be kept moist, but overwatering must be guarded against, particularly at first, that is, till the roots take possession of the new soil. In warm weather an occasional sprinkling overhead will be beneficial. B. discolor, which is also known as B. evansiana, is in some districts a favourite window-plant with

cottagers. We must congratulate you on the concise notes accompanying each specimen, which enabled us to name them even where the piece sent was not thoroughly representative.

Impatiens Holstii not flowering (*S. G. D.*).—No particular reason can be assigned for your plant of Impatiens Holstii behaving in the way it has. It is simply a freak of Nature in which the petals are abortive, their place being taken by small green bracts, thus rendering the plant entirely useless from an ornamental point of view. Nothing can be done to remedy this, and the best way to treat the plant is to burn it, as, however interesting it may be from a physiological standpoint, it is of no value whatever as a decorative plant.

ROSE GARDEN.

Climbing Rose trees to prune (*E. E. H.*). It would be a mistake to prune these hard. All you have to do is to cut away the tips of the main shoots of last year's growth to the extent of a quarter of their length in the case of the stronger roots and in the case of the weaker shoots cut down to half their length. Keep the soil moderately dry during winter and spring; in fact, until the plants have partly filled the soil with new roots, giving only clean water. When the plants are growing freely and showing for bloom, more water should be given, but never permit them to become sodden with wet. A watering with soot-water may then be given with advantage once a week.

Roses and other questions (*C. H. T.*).—A well-ripened Rose shoot is characterised by moderate size in proportion to its kind, by firmness, *i.e.*, solidity, by the woody nature of the stems, by a sparsity of pith internally, by close-set joints, and by firm-looking and prominent eyes or buds on the stems or shoots. A sappy or unripe shoot is just the opposite of this. The flowered wood of last summer, the result of last spring's pruning, would essentially be well ripened, while the non-flowering, later-made shoot issuing from the base of the same plant might be sappy and immature. By taking up examples of these cuttings and comparing them you will at once see the difference. The success of the Ipomœa in your district may be open to doubt, and much would depend upon the size of plant put out in the end of May, likewise the character of the season. South of London and quite near to the metropolis January-sown seed produces flowering plants in August and September following in a favourable season. Yes; the Gilia would have to be protected, as it is not hardy. If you require the plant for flowering in the open in summer in your district, the seeds should be sown in August and grown steadily on in pots, planting or plunging the seedlings out in their pots in early May following. Seedlings, the results of seeds sown now, would probably so suffer from the lifting in autumn that their good flowering would be much impaired. By sowing the seeds now, the young plants would be better confined to pots, and so treated may flower after being housed in September next. Everything depends upon treatment, though, as a rule, a good flowering is not to be relied upon in less than twelve months from the sowing of the seeds.

MISCELLANEOUS.

Treatment for a lawn (*W. S.*).—If you can supply a good dressing of moderately rich soil to your lawn, it will have the effect of stamping out the moss and encouraging the grass. The best way to get rid of Daisies is to encourage the grass, so that it will in time get the upper hand. The heap of refuse material you write about may be used with advantage as far as it will go, and fine sand may be used in spring. Fine sand is better for a top-dressing than coarse sand; it has the property of encouraging the finer-growing grasses. A dressing of Wakeley's Hop Manure and soot will do good in May if you can obtain these things. It is probable that you will notice the effects of the basic slag next year; its action is very slow. Should you be able to obtain soil, or mud such as is taken from a lake or pond, it may be applied every other year for several years. There is no better top-dressing for lawns or light land. A depth of from 1 inch to 2 inches may be applied, providing it is kept well worked on every possible occasion when it is dry. Chemical manures will be less profitable in your case than either farmyard manure or soil. Lawn sand is valuable in many instances for destroying weeds, but several applications have to be made, for seedling weeds are constantly appearing after the parent weeds have been killed.

Various questions (*N. Devon*).—The young Beans, Egg Plants and Lettuces must be grown in a frame if you wish to bring them on slowly; but for forcing purposes the Beans, Tomatoes and Cucumbers must be grown in a temperature of quite 68°. The Carrots should be placed in a frame which can be well ventilated in fine weather, and thinning out should be done, as transplanting will not answer in their case. The other kinds must be transplanted or repotted. The Peas must be shifted to larger pots, 10-inch ones, and kept in a cold house well ventilated if you wish to retain the plants altogether under glass; but they would bear more pods and be almost as early if planted in a warm border outside at the end of February. The pods would be fit to gather about May 20 if the variety grown is an early one. Ventilate the Peach-house on fine days. We presume you refer to Pine-apple plants. A strong bottom-heat as well as a high temperature must be maintained in the house in order to grow Pines successfully, and a separate house must be devoted to them. They are propagated by suckers or the tops taken from the fruits. Pines should be grown in a turfy loam. Very careful watering is necessary, also a moist atmosphere except when the fruits are maturing. Firm potting is essential. Yes; Maize seeds may be sown at once in heat. The resultant plants should be duly transplanted and, as the warmer weather comes, placed in a cooler structure.

Names of fruit.—*E. B. Jones, Beaminster.*—Apple Pine Golden Russet, a very old variety.——*W. T.*—Apple Lord Derby.

Names of plants.—*T. Cairns.*—1, Juniperus chinensis variety; 2, Cupressus sempervirens.

SOCIETIES.

FRENCH HORTICULTURAL SOCIETY OF LONDON.

ON Saturday evening, January 21, the members and friends of this excellent society celebrated the twenty-second anniversary of its existence. M. Philippe de Vilmorin occupied the chair, being supported by a large and influential company, among whom we noticed Professor Bateson, Sir Albert Rollit, Messrs. Louis Gentil, N. Sherwood, E. Sherwood, Thomas Bevan, R. Hooper Pearson, C. H. Curtis, Delanoue, Ripard, S. T. Wright, Arthur Sutton, J. McKerchar, E. F. Hawes, Guillond, Beale, Harman Payne, R. Barr, Engelmann, W. Hiehle, O. Hiehle, Sansy, Gaskill and many others.

The toast of "The King" was given by the chairman and followed by the company singing the National Anthem. "The Queen and the Rest of the Royal Family" followed. Sir Albert Rollit proposed the health of "The President of the French Republic" in appreciative terms, the company joining in the singing of "La Marseillaise."

The toast of the evening was "La Société Française d'horticulture de Londres." Before speaking to the toast the chairman said how sorry they would all be to know that their excellent chairman, Mr. George Schneider, was compelled to be absent on account of illness, and it was unanimously agreed to send him a message of sympathy signed by all present. Referring to M. Vilmorin's inability to take the chair as promised last year, he said that while they were enjoying their dinner he was, owing to the floods in Paris, engaged in saving his home and his family. They had had a good substitute in his fellow-countryman, the Consul-General of France, whom he wished was there that evening so that he might thank him publicly. He wished to thank them for the liberal contribution they then made to the fund for relieving the necessitous cases resulting from the floods, and likewise to acknowledge the forbearance of the English charities, who went without the society's promised donation so that the sufferers might be relieved. Although young, the French Horticultural Society of London was prosperous, and every day she realised her noble aim of making further ties between the two great nations and to help the young men who come here to widen the knowledge of their profession. This would not have been possible but for the help of their English friends. To George Schneider, who was father and mother of the society—for he and the society were one—much of the success was due, and they would, he felt sure, all pray to God that his illness might be a short one and that he might speedily be again at their head.

M. Louis Gentil responded on behalf of the society. He, too, regretted deeply the illness of their dear chairman, who had requested him to take his place beside their president. It was due to Mr. Schneider that the work of the society was so highly appreciated, and to him they owed the presence of so many English horticultural celebrities that evening. The speaker added that he had lived in England for five years, and he knew the foremost place that British horticulture occupied. In one department alone, viz., Orchids, they were never seen elsewhere in such marvellous collections. He would ask them all to drink to the success of English horticulture.

Mr. W. Hiehle announced that the French Horticultural Society had now the pleasure of fulfilling its promise to contribute the sum of £50 to the English gardening charities. They proposed to offer the sum of £30 to the Gardeners' Royal Benevolent Institution and £20 to the Royal Gardeners' Orphan Fund, and as Mr. E. Sherwood, the treasurer of the latter, was present, besides many members of both societies, he was sure they would all be pleased that they could now do what would have been done last year except for the disastrous Paris floods.

Mr. E. Sherwood, on behalf of the charities, thanked the society and congratulated its members on being able to afford so liberal a donation.

Mr. J. McKerchar replied for English horticulture, and concluded a somewhat characteristic humorous speech by drinking to "Past Presidents of the Society's Annual Meeting," of which there were several present. Mr. Thomas Bevan replied. As one who had in his youth lived and worked abroad, he could highly appreciate the work of the society and the great benefits it conferred upon the young foreigners who come over here to enlarge their business experience.

"Our Chairman" was proposed by Mr. Arthur Sutton, who spoke warmly of the Vilmorin family and paid a high tribute to M. Philippe, whom he had known, and his father also, for many years. Their chairman had come over to London at considerable personal inconvenience. Although he could not come last year, they were the gainers, for they had had the honour of the Consul-General's presence last year, and they had with them that evening M. Philippe de Vilmorin in person. He was an industrious worker, and even when he went away for a holiday was busy in literary and scientific work connected with horticulture.

On behalf of the young French gardeners the chairman was requested to hand to Mr. Schneider a mark of their esteem and regard in the form of a handsome case of dessert knives and forks, which he gladly promised to do. The proceedings were interspersed with songs and musical performances, and altogether the anniversary may be regarded as a most successful gathering.

CHELMSFORD GARDENERS' ASSOCIATION.

A MEETING of the above association took place at the Technical Laboratories, Chelmsford, on Friday, January 20. The president occupied the chair, and there was a good attendance of members. A very instructive address was delivered by Mr. N. Comber, B.Sc., of the Laboratory staff on "Lime and Its Uses." The lecture was divided into (1) The nature and properties of lime; (2) Forms of lime; (3) Sources of lime and uses. Under these divisions the lecturer dealt with lime in such a way that the members were able not only to understand its uses, but also its chemistry and properties. Chemical experiments were carried out to demonstrate the various actions and properties of lime. The uses of lime were described as: 1. It unlocks plant food in the soil hitherto unavailable. 2. Overcomes sourness and acidity in the soil. 3. Breaks up organic matter in the soil, thus aiding its decay. 4. Assists bacteria in their work of nitrification. 5. It noculates clay and makes the fine particles coagulate, thus improving the mechanical condition of the soil. 6. Is a destructive agent to some plant diseases and pests.

HORTICULTURAL CLUB.

FLORA OF THE BERNESE OBERLAND.

ON Tuesday evening, the 17th ult., under the chairmanship of Mr. Charles E. Shea, the usual monthly dinner of this club was held at the Hotel Windsor, and was well attended by members and guests. As usual, it was followed by a lecture, which on this occasion was delivered by the Rev. Canon Horsley, J.P., on "The Scenery and People of the Bernese Oberland," illustrated by a large number of very beautiful lantern slides. The slides fell into two categories, or rather three, viz., Alpine scenery on the most stupendous scale; its flowers individually photographed *in situ*; and thirdly, and in some respects the most striking of all, a series of photographs taken in Mr. Malby's suburban garden at Woodford within an area of about 160 feet by 60 feet, in which Alpine scenery has been so artistically planned on a miniature scale and alpine plants grown under such natural conditions that resultant photographs taken from judicious points of view and under conditions of haze and hoar frost were almost indistinguishable in effect from genuine Alpine scenery. Groups of Saxifrages and similar evergreen Alpine plants, thickly fringed with hoar frost, afforded some of the prettiest views conceivable, and it was generally admitted that if some of the rockwork slides from this little garden had been judiciously dispersed among the true Alpine views, no one present could have discriminated the difference. Canon Horsley, who takes a particular interest in floriculture for the masses, introduced these as an example of what picturesque effect may be attained within small areas when planned on intelligent and artistic lines. An interesting point in the Canon's address related to the rapid retreat of the Swiss glaciers up the valleys which they have shaped. Within his own memory the foot of a noted one is now a mile and a-half from the point where he first visited it, and Mr. Shea, who is a member of Alpine clubs, both home and foreign, and familiar with all Alpine points of interest, confirmed that this retreat was general, constituting an indication that the great icecap, which in the so-called glacial period extended from the Pole over all Northern Europe and the greater part, if not the whole, of Britain, and of which the existing glaciers represent but the fringe of the remainder, is very rapidly diminishing owing to some subtle change of climate. A large number of the Swiss flowers were admirably photographed, and each was accompanied by remarks relating to its habit and habitats, constituting zones, so that the Canon had frequently been able to refute accounts of ascent to extraordinary altitudes by examining the flowers there collected, 2,000 feet or so being thereby deducted. The curious fact that that little gem, the Soldanella, of which two species were shown, actually thaws the superincumbent snow, or even ice, by self-engendered warmth, and so projects its charming flowers through the mass into the sunshine, was described.

READING GARDENERS' ASSOCIATION.

THE first fortnightly meeting of the spring session was held in the Abbey Hall (by kind permission of Messrs. Sutton and Sons) on Monday, January 23. The president, Mr. Alderman Parfitt, occupied the chair, and there was an excellent attendance. Several new members having been elected and other business settled by the meeting, the president called on Mr. Exler, The Gardens, Bozedown, Whitchurch, to deliver his lecture on "Cyclamen." In a brief but very lucid paper Mr. Exler gave excellent advice as to the treatment of this lovely winter-flowering subject, which just now is to be seen in the conservatory and greenhouse in all its beauty. Preparing a proper compost, sowing the seed, pricking off the seedlings (a most delicate operation where the Cyclamen is concerned), potting and repotting, were all dealt with in turn. The storing and treatment of old corms were also referred to, but the lecturer expressed himself as being strongly in favour of rearing a new batch of seedlings each year rather than relying on old plants. At the conclusion of Mr. Exler's remarks an excellent discussion was maintained by the many Cyclamen-lovers among the members. A vote of thanks to the lecturer and president concluded the meeting.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, Tavistock Street, Covent Garden, W.C.

THE CULTIVATION OF HARDY FRUITS.

THERE are many indications that the cultivation of fruit is being more generally taken up by beginners and amateurs in gardening throughout the country. That this is a healthy sign no one, we think, will dispute. The value of fresh fruits for consumption is even now not nearly so fully realised as it ought to be; but the fact that each year more trees or bushes are being planted indicates that many of the general public are developing a taste for such fruits. When we compare well-grown and freshly-gathered or properly-ripened specimens of Apples, Pears, Plums, Cherries and Strawberries—to mention the principal fruits grown in our gardens—with those usually obtained from the average fruiterer, the vast difference is at once apparent and everything is in favour of the home-grown specimens. Those who only know Strawberries, Plums, Cherries and other soft fruits by the samples obtained from the ordinary fruiterer do not really know the true flavour of these fruits, because, to market them in anything like presentable condition, they must, with present-day methods of packing and transit, be gathered before they are properly ripened. This, coupled with the bruising resulting from the packing in thick masses, ruins the delicate flavour of the fruits and reduces them to mere imitations of first-class specimens.

Another factor which has undoubtedly had much to do with the more extensive cultivation of fruits by amateurs is the attention which has been given by nurserymen to the stocks on which the fruits proper have been budded or grafted. By judicious selection we can now have trees that will fruit in a very young state, and which, owing to their dwarf character, are specially suited for those gardens where space is none too plentiful and where a crop is desired as soon after planting as possible. The old saying that "he who plants Pears plants for his heirs" need not apply now, because trees can be purchased that will give good crops of fruit the year following that in which they are planted.

The temptations which induce beginners to take up fruit culture cannot, however, be regarded as entirely devoid of danger. There is a tendency, and undoubtedly a growing one, for those who have had no previous experience in the work to embark on fruit-growing on a large scale with the idea of gaining a living thereby. This is due to a large extent to articles which appear from time to time in the daily Press, in which are set forth the enormous profits to be made from an acre or two. "You plant and Nature does the rest" is the gist of such articles. The most astonishing thing about many beginners who think of starting fruit-growing for profit is that they are keen business men or women in their own professions or trades. To turn a clever fruit-grower into a stockbroker or the head of, say, a large drapery establishment and expect him to make a living by such means would be foolish in the extreme; yet it is equally foolish for those who have made their money by such means to think that they can straightway turn themselves into successful fruit-growers. Of course, if they are prepared to put in several years of hard work to get a good grounding in the subject there is an opening for their enterprise and energies; but without this and a certain amount of capital their venture will in ninety-nine cases out of a hundred result in failure.

The beginner in fruit culture should avoid being led away by glowing descriptions of what can be done, and should endeavour to proceed tentatively with a few kinds. With these fairly mastered, others may be gradually included. It is a mistake to plant at the outset a large garden or orchard with many different kinds; these will only worry the cultivator, and in all probability end in failure. To what extent such kinds as Apples, Pears, Plums, Cherries and other kinds will be planted will naturally depend, to a very large extent, on local conditions and individual requirements. Where it is eventually intended to market the fruits, the local demand should, as far as possible, be ascertained. It is far better for the small grower to sell his crops locally than to send them to the London markets. Salesmen in these large markets do not care to deal in small, irregular supplies, and it frequently happens that much better prices are obtained locally than those prevailing in London. Of course, where fruits are to be grown for home consumption only matters are very much simplified, and individual taste can be fully pandered to. The best advice that can be given to the beginner in fruit-growing is to consult a reliable firm who make a speciality of fruit trees and act upon their advice.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 13.—United Horticultural Benefit and Provident Institution's Committee Meeting.

February 14.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster. Annual General Meeting of Fellows at 3 o'clock. Horticultural Club's Annual Meeting.

February 16.—Linnean Society's Meeting at 8 p.m.

The Horticultural Club.—The annual dinner will be held on Tuesday, February 14, at 6 p.m., at the Hotel Windsor, and ladies are specially invited. The annual meeting will take place at 5 p.m., and it is hoped that all interested in the club will be present.

The new rock garden at Wisley.—We understand that the plans for the rock garden at Wisley, prepared by Messrs. Pulham and Son, in conjunction with Mr. Edward White, have been selected by the Royal Horticultural Society from a number of schemes sent in, and that the society have instructed Messrs. Pulham to proceed with the work at once.

The Kew Guild Journal.—Owing to various circumstances the Journal of the Kew Guild was not published last year, hence the issue now before us must be taken as a double number, embracing as it does the movements and doings of Kew men during the past two years. An excellent portrait of Mr. R. Hooper Pearson forms the frontispiece, and other illustrations include the new Water Lily garden at Kew, as well as portraits of a number of Kew men. As usual, the letters from Old Kewites are full of interest, and enable us to understand the varied and important character of the work that is being done by Kew men in all quarters of the globe. A branch of the guild has been formed in Ireland, the object of which is apparently to criticise the committee in their failure to produce the Journal last year.

Catalogue of plants in Cmwdonkin Park, Swansea.—For the guidance of visitors a very useful little catalogue has been compiled by the parks superintendent, comprising trees, shrubs, herbaceous, alpine and other plants to be found growing in the above park. The native country of each plant is given, together with the popular name where possible. Such a list is extremely useful, and tends to enhance the interest and educational value of the park and gardens. It is interesting to note that the parks committee have under consideration the formation of a garden in one of the parks exclusively for the cultivation of plants indigenous to Britain. We cannot help feeling that there are many parks committees that might well follow this example. The price of this catalogue is one penny.

Teaching horticulture in Scotland.—A scheme for the establishment of a two years' course of instruction in horticulture, leading up to a certificate, undertaken on the suggestion of the Scottish Horticultural Association, has been drawn up, and was submitted to the Governors of the Edinburgh and East of Scotland College of Agriculture at a meeting held on January 25. It was generally approved, but it was considered advisable to submit it to the Horticultural Association, and this was agreed to. It is understood that the scheme will necessitate very little addition to the present staff of the college, with the exception of the appointment of an assistant lecturer on horticulture and a few arrangements to be made for certain classes, which can be easily done. It is anticipated that the provision of an experimental farm by the college will provide the necessary facilities for practical work. The horticultural work of the college is at the present time filling a want, and is highly successful.

National Sweet Pea Society.—We are informed that the "Sweet Pea Annual" and the schedule of prizes for 1911 will be sent to all members of the National Sweet Pea Society at the end of the present week. Since the annual general meeting no fewer than sixty-three new members have joined the society, and several additional local societies have become affiliated. A goodly number of Sweet Peas have been sent to Guildford by raisers at home and abroad; consequently the society's trials promise to be as interesting as in any previous year. For particulars of membership and affiliation our readers are referred to the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford.

A great summer show of flowers.—A few years ago the council of the Royal Horticultural Society was led to organise very large summer shows during the first week in July to assist flower-lovers to a knowledge of subjects for the open air in summer. These summer shows have been held in the past, by the kind invitation of Mary Countess of Ilchester, at Holland House, Kensington; but the grounds being unavailable in 1911, the great hall at Olympia, Kensington, has been secured, and on July 4, 5 and 6 there will probably appear (at least, such is the promise to-day) the most lovely event of the year in the world of gardening. The show is to remain open until 10 p.m. on the first two evenings (July 4 and 5) at the popular admission price of 1s.—the first time evening shows have been held. Olympia is an excellent place for such a show, with its glass roof admitting full daylight and securing dryness underfoot, and having a breadth permitting of broad gangways. The imagination can foresee the magnificence of the display of flowers there. The hall will be surrounded by a sloping bank of floral groups rising to a height of 15 feet to 20 feet. Within this table exhibits will be placed, including an avenue of Orchids; while at the west end rock and water gardens will be surrounded by festoon and pillar Rose gardens. Several valuable cups are offered, including one of fifty guineas in commemoration of the Coronation of His Imperial Majesty King George V. Growers of flowers and plants can anticipate the show with the brightest reflections, and with the assurance that the council is putting forth every effort to make it an unprecedented success and a source of gratification to Fellows and friends of the society.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Crocus Serlei.—This pretty harbinger of late winter showed itself in all its beauty on January 27. This is a very pretty early species, and is very acceptable in the alpine garden at such an early date. These early species do well and look uncommonly beautiful when small masses of them are planted together. They should be planted in sunny spots in order to have them early, and if on a gentle slope so much the better. Crocuses revel in fairly deep soil, which should be of a light nature. This species, when planted in soil and positions as indicated, need not be moved for several seasons. Narcissus minimus first appeared on January 28. These small Narcissi are most welcome and pretty, and when planted as we have them here, in all sorts of positions, maintain a supply of bloom for a long period. A little sharp sand or granite grit should be placed around if insects are troublesome.—W. A. Cook, *Leonardslee, Horsham, Sussex.*

The returning Daffodil season.—Yes, the "yellow fever" of Daffodils is again approaching, and it will be a very early one in the South of Ireland. I have for nearly thirty years been a lover and grower, and during all that period never saw them so happy in the surroundings with one exception—that of 1889. We gathered a Royal bouquet of the big Irish cernuus Bishop Mann, at the express wish of Lady Aberdeen, as flowers from an Irish garden for the Queen's Drawing Room, Buckingham Palace, at the middle of February of that season. Her Ladyship was so proud of the variety (white Daffodils). Her late Majesty had to be told all about the bouquet and where it came from, and Lady Aberdeen immediately had her photograph sent me with her autograph, which I prize very much. At that time we had but four or five white trumpet sorts, which were nearly all known in Irish gardens. This season we have already the earliest bloom of this variety seen since then at Ard-Cairn. It has been in bloom since January 20, and is a very nice flower indeed. King Alfred is already in bud, and so are Ides of March, Winter Cheer, Cervantes and some others. As they appear I will be most happy to send you a gathering illustrative of the earliness and verdure of "Ould Ireland." You see, though the world may frown on us betimes, the sun shines on us and gives us so early its moiety of "yellow fever" once more.—W. Baylor Hartland.

The Amoor River Adonis.—More and more is the feeling growing that a garden should afford pleasure throughout the year, and not at one or two seasons alone. Sometimes the austerities of our climate rob us of the joys of studying the earliest flowers at a season when they would be most relished; but at other times this gratification is not denied us, and we can enjoy to the full their grace of form and their charm of colour. Almost every year some additions are made to the earliest flowers, and the native plants of other lands bring tribute to our gardens to enrich them with their beautiful blooms. It is only in such an open season as this, however, that we can realise to the full the gain we have derived from the introduction of the Amoor River Adonis (A. amurensis), which a few years ago was brought within our reach. In some seasons it is not in bloom until February or March; but this year it deigned to open its flowers with me in January, although the little sunshine we were favoured with that month prevented it from opening so frequently as I could wish. Yet it was very pretty with its large, single yellow flowers and its pretty leaves on a plant less than 1 foot high. Besides the ordinary or typical form, with its good, single yellow blooms, we have several others with double or semi-double blossoms; but, so far as I recollect, none of those with rose-coloured flowers, which we are told are in existence, has come under my observation. I believe that there is in cultivation a white variety; and those who know the Adonises can well imagine the beauty which will be shown by such a flower if it is of the purity we generally associate with the term "white." Adonis amurensis should have a rather warm place, yet one not too much exposed to drought in summer. Here it is grown under a deciduous shrub, the yellow-barked Dogwood, which I received as Cornus sibirica flaviramea, the yellow tone of whose bark goes so well with the flowers of the Amoor Adonis. The soil is light and open.—S. Arnott, *Sunnymead, Dumfries.*

The difficulties of French gardening. I am quite sure that Mr. L. Dupond of The Nurseries, Crowthorne, is well conversant with the difficulties attending French gardening in England. I commend him, too, for boldly telling his audience

that there were difficulties. During the past few years I have had full opportunity of noting the working and general management of a large French gardening establishment in this country, and nearly all the drawbacks referred to by Mr. Dupond have been experienced at this establishment. A very able Frenchman had charge. Personally, I do not think that French gardening, as it is called, will ever become popular in this country. It is really only the old English method of raising early crops on hot-beds magnified. As hot-water apparatus became cheaper, forcing by hot-bed was lessened, but there is still plenty of such forcing done in this country; in many private gardens quite sufficient of it to meet the demand for the early produce. As long as a few persons only engage in the cultivation of early vegetables and salads for the supply of the markets, French gardening will afford good returns where there is expert management; but the moment such a system of production became popular and was widely engaged in, the prices would be too low to return a profit. My advice is, think well before engaging in this work with a view to making a living by it.—AVON.

Giant Onions.—The weight of 3lb. per bulb in Onions is not a record. Mr. Bowerman, when at Hackwood Park, grew from Sutton's stock of Ailsa Craig bulbs weighing 3½lb., and, I believe, the same variety—which is, without exception, the finest bulbing variety we have—has produced bulbs 4lb. in weight. To secure such wonderful bulbs the stock must be of the very best and the culture of the highest. It has been Ailsa Craig's misfortune that, because so splendid a bulb-producer, and also because its bulbs do somewhat vary in shape from even the finest selected stocks, it secures other appellations which are not true and that no practised eye ignores. When the National Vegetable Society's trial of Onions, so admirably conducted, took place at Twickenham last year, every row of Ailsa Craig could be spotted in a moment, as also could those of certain other fairly well-known varieties. The time may come when any collection of Onions may be disqualified when Ailsa Craig is exhibited under divers names. —A. DEAN.

Lilium nepalense and L. sulphureum. Towards the end of April last year I obtained a few bulbs of each of these fine Lilies. Never having grown them before, I applied to a bulb catalogue for information as to culture. There I read that cool treatment was essential. I potted in the usual way and set in a cool greenhouse. After many weeks the nepalense began to send up very weak growths, and a week or two later sulphureum sent up fairly stout stems. Growth was very slow, but in October buds were formed on all the plants. One of the nepalense dropped its buds when about the size of a Sunflower seed, while all the others appeared to remain almost stationary. This went on till December, when I removed one plant of each to an intermediate temperature. In a few days the buds began to swell, and eventually opened into quite nice blooms, if a little paler in colour than they ought to have been. I then decided to place all in heat, but the nepalense had in the interval withered, and the buds never opened. The sulphureum quickly responded to the warmth. At this date (January 23) one is just opening, while another will do so in ten days or so. Perhaps other readers will give their experience with these Lilies. I am of opinion that a little warmth earlier in the season would have been beneficial. It may be that I was too late in getting the bulbs. They were sound enough, but a little shrivelled on arrival. I will be glad to have the opinions of the readers of THE GARDEN who may have tried these Lilies.—C. BLAIR, *Linlithgow.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY FIGS IN POTS.—Now that the days are lengthening and the sun increasing in power, it will be safe to give the trees a more generous treatment than hitherto. Liquid manure may be applied more frequently and with increased strength. An occasional sprinkling with Le Fruitier will also be of benefit. Encourage a moist atmosphere in the house by sprinkling the walls and paths, and syringe the trees twice daily with tepid rain-water during fine weather. A minimum night temperature of 60° will be suitable during cold weather, but this might safely be increased by 5° when the weather is mild. During the day the glass may rise to 80° or 85° by the sun's influence so long as there is a little air admitted through the top ventilators on these occasions. Stop the shoots at the third or fourth leaf, and remove weakly growth where the trees are inclined to be overcrowded. Do not be in too much hurry in thinning the fruits except those which are deformed. Some are sure to drop before the flowering period is past. Trees growing in permanent borders must be started for succession as required. It is better to start early and bring the trees on gradually than to have recourse to hard firing, which the Fig will sometimes resent by shedding a large portion of the crop. If the trees are growing in shallow, restricted borders, timely attention must be paid to watering. Such trees when in vigorous growth must be watered frequently; they will also be in need of stimulants.

Pot Fruit Trees.—This method of fruit culture is fast becoming popular, and rightly so, for in gardens where glass accommodation is very limited it is a great boon to have a good batch of Peaches, Nectarines and Plums growing in pots. It is not too late now to purchase trees from the nursery, and if a few maidens are procured every year, quite a good batch of fruiting trees may be grown in a few years with very little outlay.

FLOWER GARDEN.

Climbing Roses.—If these were not pruned last autumn, this work must be no longer delayed, as the buds on plants in sheltered positions are on the move and there is danger of them being injured. Remove as much of the old wood as possible, replacing this with well-ripened young shoots. In most cases it is best to remove the old wood as soon as flowering is over. This gives more vigour to the young growth, and enables it to become thoroughly ripened and better able to stand severe frost. Old trees which are showing signs of exhaustion should have a good portion of the surface soil removed from about the roots and replaced with loam and well-decayed farmyard manure. After the trees are trained in position spray them with an insecticide.

Propagating.—There are various kinds of bedding plants which require to be sown now, so that they may have ample time to make good-sized plants by bedding-time. Wigandias, Solanums, Acacia lophantha, Cannas, Heliotropes and Hollyhocks should be sown now and placed in heat. The propagating of various kinds of plants from cuttings must be proceeded with as soon as growth is forward enough. Pelargoniums which were rooted in boxes last autumn may be potted up now and placed in a warm house. Some of the choicer kinds of Dahlias may be placed in gentle heat to produce cuttings, if so desired.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN

SPINACH.—This is a very important vegetable in most households, and a good sowing should be made now, on a south border for preference, on ground which has been well manured and deeply dug. Successional sowings should be made about once a fortnight until the end of April; sowings after that date run very quickly to seed in the hot weather. If a continuous summer supply is required, a cool and somewhat shaded spot should be selected, but there is not usually much demand for Spinach after Peas, Cauliflowers and other vegetables are plentiful. The variety Market Favourite is a splendid sort for general use. Batches of autumn-sown Spinach have come through the winter well; these will be all the better for a stir with the hoe on a fine day and a light dusting of soot or, what is perhaps better, an application of nitrate of soda applied sparingly between the rows.

Autumn-planted Cabbages also benefit at this time if, after any blanks have been made good, a light dressing of nitrate of soda is given between the rows at intervals of three weeks. Stir frequently with the Dutch hoe on fine days and draw some of the soil up round the stems of the plants.

Parsnips.—These require a long season of growth, and should be one of the first of the vegetable seeds to receive attention. The ground should not have been manured recently with heavy doses of partially-rotted manure. Many gardeners make it a rule to grow these on the ground that has just been cleared of the Celery crop without adding any manure. Drills for Parsnips should be drawn about 18 inches apart, and the seeds sown thinly or at intervals of 1 foot to 15 inches. Where exhibition specimens are required, deep holes should be made with a large dibber and filled in with finely sifted soil pressed moderately firm. Three or four seeds can then be placed on the top of each hole and afterwards thinned out to one plant. Two feet between the rows and 18 inches between the plants is necessary for producing specimen Parsnips.

Celery.—Sowings for the first crop should now be made in pans or boxes placed in a temperature of 55°. Guard against giving the young Celery plants any check either from overcrowding or drought, as this is sure to result in a premature running to seed.

Cauliflowers, Cabbages and Brussels Sprouts may also be sown under glass to supplement or succeed the autumn-sown stock.

Peas and Beans.—Continue to put in successional sowings and be ready to protect the earliest with stakes as soon as they come through the ground.

FRUIT GARDEN.

Bush Fruits.—Cuttings of Gooseberries, Red, White and Black Currants may be prepared and planted now. In making the cuttings a sharp knife should be used and all buds carefully pared off to about 10 inches from the base of the cutting. Insert the shoots in rows about 15 inches apart, treading moderately firm on both sides of the row. One year old cuttings should be transplanted, giving sufficient room to stand for another two seasons without moving.

Gooseberry Plantations in many places suffer severely from birds destroying the buds. Where they are troublesome, a good plan is to give the bushes repeated dressings of soot and lime, or black cotton fastened over and about the branches helps to frighten the birds away.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE KITCHEN GARDEN

THE CULTIVATION OF LEEKS FOR EXHIBITION.

LEEKS form one of the most important dishes when staging a collection of vegetables throughout the summer and autumn months, and when staged in first-class condition they help to form a good background and also gain a number of points. To produce Leeks, however, as seen on the exhibition tables to-day requires a great amount of attention throughout their season of growth. To obtain the best results for early work it is necessary to sow in pots early. We usually sow about the first or second week in January for the earliest supplies, and here let me state that if one is anxious to obtain good specimens, one should endeavour to grow a few well rather than a greater number indifferently. Well washed and dried 3-inch pots will be found the best size, carefully drained and filled with a compost of two parts loam, one part each of leaf-mould and Mushroom-bed manure, and coarse road grit or river sand passed through a quarter-inch meshed sieve and thoroughly well mixed to form a sweet, light medium. Always use the soil in what I term a workable condition, that is, neither too wet nor too dry. A pinch of seed should be sown about half an inch below the surface and the pots stood in a house in a light position where a gentle heat is maintained, such as an early vinery or Peach-house. Give a good watering in with a fine-rosed can, and if the whole of the soil is thoroughly moistened, little water will be required, beyond occasional syringings to keep the surroundings moist, until the young plants have germinated and are growing freely. Gradually thin out, leaving the most promising plants. Inure the plants to more air and grow under gradually cooler conditions. When the pots are filling with roots a shift into larger pots will prove of great benefit, otherwise the plants run a great risk of becoming starved, and one of the chief points in the cultivation of good Leeks is to keep the plants growing under as normal conditions as possible without a check. If clean pots, and dry, were used at the time of sowing the seed, the young plants should knock out with a good ball. Carefully remove the crocks and pot on into 5-inch or 6-inch pots, which should also be well prepared as regards washing and draining. Use a similar compost, but coarser, and add a sprinkling of bone-meal, and in potting the old ball should be just below the surface of the new soil. As soon as the plants recover from the shift begin to give air abundantly and transfer them to cold frames, where, however, they can receive plenty of protection in the event of cold nights. Use discretion in admitting air throughout the day if cold and dull. After potting, and under cool conditions until the plants root into the new soil, watering must be carefully done, or the soil will become sour. On bright days and when the air is soft remove the lights entirely.

PLANTING OUT.

Before the planting-out-time arrives the ground should be got in readiness for them, and, to further encourage the plants, it must be treated liberally with manure. Take out a trench as for Celery, about 18 inches wide and 2 feet deep. Well fork up the bottom and place a layer of well-decayed farmyard manure on it. Just cover with fine soil taken from the trench and leave until a favourable opportunity presents itself for planting, which should be about the middle of April. Choose a fine day and when the ground is not too wet. If some old potting soil can be placed in the trench on which to plant, this will be found better for the plants to start into than the ordinary soil; but in any case give a good sprinkling of bone-meal. This is a most valuable manure to incorporate with the soil for Leeks and is much appreciated. Plant firmly and at 15 inches apart, and give protection from cold winds. This can be quickly afforded by placing a 9-inch plank on edge at either side of the trench, kept in position by a few stakes driven on either side.

HOW TO BLANCH.

The blanching of this vegetable has to be commenced almost at once to ensure perfect specimens. The best arrangement I have found after trying many methods is the use of brown paper collars. These are easily made by cutting the paper into strips about 6 inches long and rolling them on a hard surface cylindrical in shape and about 2 inches in diameter and pasting together. Place one of these over each plant, and secure it in position by tying to a small stick. As the growth proceeds the collar must be raised, and fine soil, preferably of a sandy poor nature, placed round the base of the plants; this must be carried out at intervals until the process is complete. As the work of blanching proceeds it will be found necessary to add other boards, and when finished cover the surface with wheat straw to keep the specimens clean. Water should be liberally supplied during the growing season and occasional applications of liquid manure. In hot weather the plants will much benefit by syringings with clear water in the evening. The foregoing remarks apply to the method I have used now for several seasons, and with much success. If, however, it is impossible to carry the work out in this manner, the plants should be gradually earthed up in a similar way to Celery, using the soil as fine as possible; but the extra labour involved in the first method is well repaid and has many advantages. Lifting the plants when required should be carefully carried out or much injury can soon be done. A long, narrow spade or graft is best for the purpose, and the roots should be lifted with the plants, as for purposes of exhibiting these should always be shown adhering to the plant. Tie a piece of stout raffia round towards the top to prevent the leaves breaking away.

Washing of the Leeks must be thoroughly well carried out in several changes of water, and then sponging them carefully. Where several are required for a dish they should as near as possible be of uniform shape, both in length and width, and of the same thickness throughout and perfectly straight, so that mere length is not the only requirement. In my opinion, if the Leeks are about 15 inches in length and proportionate in other ways, an ideal specimen is the result.

One other item is to be remembered. Plants raised from a poor stock require as much work and attention as those from a superior one; therefore, grow a reliable strain, otherwise the best results can never be expected. There are several varieties of sterling worth, but a good selection from either of the three here named is reliable—Improved Lyon, International and Prizetaker.

Aldenham House Gardens. E. BECKETT.



THE NEW ODONTOGLOSSUM HALSEYANUM. (*Much reduced. See page 65.*)

FORCING FRENCH BEANS.

AT one time I grew and depended largely on Osborn's Forcing for supplying early crops of tender Beans under glass, and was much pleased both with the colour and quality when cooked; but for productiveness, especially when grown under rather unfavourable circumstances, the variety Ne Plus Ultra yielded heavier crops, and was on that account given the preference. There are other varieties I have given a trial, but so far I have not found a better one than Ne Plus Ultra, all points considered. Later on, in frames, Canadian Wonder crops heavily when allowed ample room, while the pods produced are more fleshy than some and do not become stringy so soon. French Beans are, as a rule, much valued when they can be had in quantity early in the season, and should be grown more or less according to the room and conveniences at hand. Unless suitable structures are provided, I consider it a waste of time and labour to attempt to grow Beans during the month of December and January, as the plants rarely produce anything like a reasonable crop of tender, usable pods. After



THE NORTH END OF THE ROCK GARDEN AT KEW BEFORE THE ALTERATIONS.

(*See page* 66.)

this date the cultivation and success is much easier, good crops being produced from plants in pots and, better still, from plants growing in a suitable border in a nice light structure near the glass which is suitably provided with heat and ventilation appliances.

Those who wish to grow and keep up a fairly good supply of tender Beans cannot do better than make a sowing of seed every fourteen days, either in 3-inch pots, to be transferred to 8-inch pots when large enough, or sown direct into the large size in which they will bear. Place the pots in a temperature of about 60° by night, and do not over-water till the seed has germinated. For a time the pots may be stood near the pipes in a newly-started vinery; but as soon as the plants are well through they should be given a lighter position near the glass. Slightly dew over twice a day and keep the roots sufficiently moist to prevent the plants suffering from red spider and thrip. A healthy, robust plant should be the aim for productiveness. A weak, attenuated specimen is practically useless in addition to being a perpetual eyesore. Place small twiggy sticks round the inside of the pots to keep the plants upright, which should be attended to when they have attained a height of 4 inches. If kept growing in a genial atmosphere, the temperature ranging from 55° to 60° by night to 70° to 75° by day, the plants should commence to bear in about eight weeks. The syringe, it is needless to remark, must be carefully used at all times. In bright weather it should be employed twice daily, using it freely under the leaves, especially if the plants are growing near the hot-water pipes; but when in flower syringe very lightly, and this only when the weather is bright. Some gardeners I know do not favour the syringe at all when the plants are in bloom, but a slight dew overhead will keep the leaves fresh. All pods should be removed from the plants when they have attained the right size, and if not required for a few days, tie them up in bundles and rest the ends in a flower-saucer containing about half an inch of water. Removing the pods early will greatly assist the plants in bearing, and do not overlook the roots, as a good supply of manure-water at intervals in not too strong a state will greatly assist the production of Beans over a long period, and there are few vegetables which will be more highly appreciated when properly cooked and served up to table.

Wrotham Park, Barnet. H. MARKHAM.

THE GREENHOUSE.

THE HYBRID GERBERAS.

THESE brilliant flowers, hybrids of Gerbera Jamesonii, have quickly become popular, and those who have seen a good display of these charming and interesting Daisies are unanimous in their praise and predict a great future for them. The amateur may grow them successfully providing a few details in their cultivation are carefully observed. They make excellent pot plants for the cool greenhouse, and may also be grown as a border perennial if a sunny and well-drained position is chosen and slight protection afforded in winter. A light, rich soil suits the plants, which must be kept on the dry side during the winter months. Wet soil causes the tuberous rootstock to decay. Under favourable conditions seed is ripened freely. The plants may be raised from seed in boxes, pans or pots. Use a fine, light soil, give the seedlings the same attention as afforded to seedling Carnations, and strong plants will be produced.

The amateur with a greenhouse at his disposal may grow on some of the plants in pots, planting out the remainder on a specially-prepared south border. In the North, or on wet, cold clay soils, it may be advisable to treat the whole batch as cool greenhouse plants. By the aid of careful culture the plants may, however, be induced to thrive and flower freely in many gardens and under somewhat adverse conditions. Experiments in this direction often produce pleasant surprises. This South African plant is so beautiful that any pains taken to secure success will be amply rewarded. In addition to the well-known Gerbera Jamesonii (the Scarlet Daisy of the Cape), there are some good hybrids that have been raised during recent years, including a wonderful range of colours. The flowers are borne on long stalks, which render them most suitable for floral decorations. COLIN RUSE.

Lambay Castle, Rush, County Dublin.

A NEW ODONTOGLOSSUM.

(O. HALSEYANUM.)

VERY few occupations can ever prove so fascinating as that of hybridising Orchids. The ease with which varieties, and in certain cases genera, cross and intercross with one another is truly remarkable. The results in all cases are interesting, and there is always the chance of raising a new form which will be an improvement on existing varieties. The parentage of Odontoglossum halseyanum is not recorded, but the form of the flower and its heavy chocolate blotches on a pure white ground seem to indicate that the points of a good O. crispum are embraced in this new variety. The flowers are freely borne and of good size, the individual bloom being nearly 3 inches across. An award of merit was granted to this novelty by the Orchid committee of the Royal Horticultural Society on January 17, when it was shown by the treasurer of the society, Mr. J. Gurney Fowler.



THE SAME PORTION OF THE ROCK GARDEN AT KEW AS IT APPEARS AT THE PRESENT TIME

THE FLOWER GARDEN.

ALTERATIONS IN THE ROCK GARDEN AT KEW.

IT was a happy idea on the part of the authorities at Kew to remodel the north end of the famous rock garden. In the past this part has been occupied by old tree butts interspersed with Ferns and shade-loving plants. The effect, to say the least, has been decidedly tame and not in keeping with an otherwise well-ordered and interesting rock garden. The work of reconstruction was commenced in the autumn, and our first illustration on page 65 shows this part of the rock garden as it was in October last. All of these plants, together with the tree butts, have now been removed, and a large quantity of special limestone in huge boulders has been introduced from Gloucestershire for the purpose of making a suitable home for rock and alpine plants. As may be readily seen in the second illustration, the large stones have been placed in irregular but, at the same time, definitely sloping lines, representing lines of stratification. This lends quite a natural appearance to the rock garden, and at the same time affords ample opportunity for making useful soil pockets for planting. A number of dwarf shrubby plants have already been planted out, such as Ericas in variety, Rhododendron racemosum and the low-growing Genista pilosa. Some of the overhanging shrubs and trees which shaded this portion of the rock garden too heavily have now been removed.

THE NEWER ANTIRRHINUMS AND THEIR CULTURE.

THE praiseworthy and generally successful efforts that have in recent years been made to improve by selection or hybridisation the commoner orders of border flowers have not, it is pleasing to think, been omitted in the case of the Antirrhinum. The newer types are in every way a great improvement upon those in vogue a few years ago, and can now be relied on as being among the most useful and, withal, most lasting of summer and autumn flowering plants. Where large beds or borders of flowers are required for a long period, seeds of a good strain sown early in February and the young plantlets carefully tended for a few weeks will, in due course, provide a rich and abundant display of colours unsurpassed by few or any other kinds of border flowers.

Most first-class seed catalogues give a list of the different varieties, be they dwarf or tall, together with colours and general characteristics of growth. For forming a group or for furnishing a large bed, plants but a few inches in height may now be had for the outer row, while the filling in may be done by others slightly taller, the rows thus rising one above the other until the centre is reached, and the whole forming, when finished and growth and flowers have advanced somewhat, a sloping bank of much beauty, wherein the colours, distinct or otherwise, are judiciously blended.

SOWING THE SEED.

This should be done not later than the middle of February, and a brisk heat, preferably that arising from a heap of manure and leaves, is necessary to ensure quick germination. Under favourable conditions the seed starts freely; hence care must be taken against sowing too thickly, which renders the young plants difficult to handle and augments the risk of damping. The soil for the transplanting process may consist of equal parts of loam and leaf-mould, and a little sand added if thought necessary. Pans or boxes are good receptacles, more especially where many plants are grown, and these should have a layer of moss placed within for drainage, and then be nearly filled with soil, made firm. This accomplished, a moist, genial temperature should be afforded until renewed growth after disturbance indicates that the roots have taken to the new soil, when transference to a less humid position, as that within the precincts of a vinery or Peach-house, where a brisk temperature is maintained, will answer well. Once established, the plants grow quickly, and are apt to become unduly attenuated if placed far from the roof glass or in a high temperature; hence their removal to cooler structures as the need for this becomes apparent must not be neglected.

SUMMER TREATMENT.

A well-worked, moderately rich soil is preferable to one highly charged with manures, for if growth is too vigorous malformed flower-stems and coarse blooms will be in evidence. The taller varieties, which may attain a height of 30 inches or more, are greatly benefited by having short stakes applied as supports soon after planting, when the growth will soon hide these from view. Watering must be attended to until the plants are established, when, should drought prevail, a mulching of leaf-mould or Cocoanut fibre would check evaporation and thus save labour. Insects of any kind are seldom troublesome, and fungus diseases are not likely to occur. As already stated, the colours are distinct, scarlet, yellow, very dark velvet and white being perhaps the most pleasing, and in a good and well-preserved strain are seldom misleading. Beautiful mixtures of colours make charming groups upon shrubbery borders. For cutting for vase adornment, the taller varieties, owing to their loose habit and greater length of stem, are most in favour, while the dwarf kinds are better fitted for bedding arrangements.

JAMES DAY.

Galloway House, Wigtownshire.



ROSE LADY WATERLOW IN A SOUTH COAST GARDEN.

THE ROSE GARDEN.

ROSE LADY WATERLOW.

I NOTICED in a recent issue of THE GARDEN a paragraph about Rose Lady Waterlow, in which the writer says that it makes shoots 6 feet to 7 feet long. I have one in the front of my house facing south that makes shoots 12 feet in length, gives quite 150 blooms in May, and many again in the autumn. As it is a most beautiful colour, with dark blue-green foliage, which, if left on, will remain throughout any ordinary winter and is impervious to mildew, I look upon it as one of our best Roses. I enclose a photograph, which was taken the second year after planting.

Boscombe. WALTER C. CLARK.

ROSES WITH EVERGREEN FOLIAGE.

STRICTLY speaking, there are no true evergreen Roses, but there are a few kinds that retain their foliage quite a considerable time, some of them well into the New Year, and in mild districts almost until new leaves appear. There is one variety of recent introduction that I believe will be in much demand even for its foliage and its almost evergreen nature. This variety is American Pillar. It is in midwinter a beautiful picture, the large, glossy leaves, which are of a deep olive green colour, with sometimes reddish stalks, being conspicuous among all other Roses. I would advise anyone desiring a good-foliaged pillar shrub to plant this Rose freely, for it cannot fail to be attractive wherever situated. The growths are produced so freely from the base, which makes the shrub much more attractive. Its blooms are very lovely, like a giant Penzance Briar, of that beautiful rich pink shade so much admired, and an additional charm is added by the well-defined white eye and golden stamens. Unlike most single Roses, this variety flowers somewhat late, usually about the beginning of July. For hedge planting it is sure of popularity in the near future.

Although I believe our American friends care little for single Roses, yet we owe a debt of gratitude to them for many splendid introductions in this line. Perhaps next to American Pillar in value as an almost evergreen shrub we have Edmond Proust, one of the hybrid wichuraianas. It was at the end of December quite a picture, one huge plant trained on wires being as green as it was in the height of summer. It has not been planted more than three years, but it has now made

a hedge of beautiful foliage in a comparatively short time from one plant only. Other Roses which, like those named, are almost evergreen are Félicité Perpétue, Aimée Vibert and its yellowish coloured sport, Longworth Rambler, Aglaia, Jersey Beauty, Alberic Barbier, Evergreen Gem, Reine Olga de Wurtemburg, M. Desir, R. clynophylla duplex and R. sinica or lævigata. This latter, as is well known, must be grown against a sunny wall or fence. P.

ROSES IN SOUTH AFRICA.

In your issue of October 15 you reviewed a book on "Rose Culture Adapted to South African Conditions," with notes by "P." Perhaps a few remarks anent the same might be of interest, especially as to varieties named and suggested. South Africa is a huge country and the climate so varied, ranging from the tropical littoral to the high veld 5,000 feet to 6,000 feet above sea-level, where in winter I have known 28° of frost and a variation of 70° temperature in twenty-four hours, so that varieties which succeed in one part do not thrive so well in others. Hybrid Perpetuals are not a great success here (with exceptions, of course), but on the high plateaux of the Orange River Colony and the Transvaal they do splendidly, and the colours are of a richness seldom seen in the Old Country. Teas are the most generally grown, and the majority of them thrive to perfection, and are practically ever-blooming. Many of the Hybrid Teas are very disappointing, more particularly the newer sorts, though the stocks they are worked upon in Europe account partly for this. Even when budded on the most suitable stock for this climate (R. multiflora) they do not always come up to one's expectations.

Roses are at their best in October, when nearly all Rose shows are held, and the wealth of bloom at that season would be a revelation to home growers. Such varieties as Dean Hole, White Maman Cochet, Mrs. S. Crawford, G. C. Waud, Etoile de France, Queen of Spain, Hugo Roller, Medea, Mrs. Aaron Ward, Souvenir de P. Notting, W. A. Lippiatt and, of older kinds, Belle de Bordeaux (one of the best and most lasting for cutting), Homère, Marie van Houtte, Caroline Testout, Maréchal Niel and Jean Ducher are literally smothered with flowers. Château de Clos Vougeot is gorgeous, as is also The Meteor. "P." is surprised that Comtesse de Nadaillac is not mentioned in the book reviewed. Unfortunately, it is most disappointing, being such a weak grower, so that blooms rarely reach perfection even on de la Grifferae stock. Captain Hayward also sends out shoots 6 feet to 8 feet long with a most mediocre bloom at the end. Cardinal does not succeed, neither does Lyon; they cannot be persuaded to grow. Mme. Maurice de Luze is superb, as is also Rhea Read. I agree with "P." that lightly treading the soil is a mistake; Roses in this country must be firmly trodden in. For feeding there is nothing better than bone-meal forked well in among the roots before growth commences, or, for quick action, dissolved bone compound. The list of 100 best Roses may be up-to-date, but does not altogether hit the mark. Many of the old standard varieties are still the best and most popular, the following being great favourites: A. K. Williams, Alfred Colomb, Dr. Andry, Earl of Dufferin, Jean Liabaud, Beauty of Waltham, Black Prince, Captain Christy, Franciska Kruger, John Hopper, Kaiserin Augusta Victoria, Mme. Berard, Mme. de Watteville, Pierre Notting, Queen of Queens, Souvenir d'Elise Vardon, Xavier Olibo and Ulrich Brunner. Nurserymen out here need have no misgivings as to being overstocked with such varieties as these. It might be of interest to you to know that in the Mozambique territory, owing to the intense heat (sometimes as much as 128° in the shade), Roses are grown under the shade of Palms and Papayas (or Papaws). Of course, only Teas and the more robust of the Hybrid Teas and Noisettes do there. W. A. Richardson and Grüss an Teplitz are perfection, and La France is most beautiful.

Maritzburg, Natal. ARTHUR J. WEAVER.

TREES AND SHRUBS

AN INTERESTING HARDY FLOWERING SHRUB.

(CLERODENDRON TRICHOTOMUM.)

This beautiful hardy flowering shrub is well worthy of extended cultivation. It is a valuable acquisition to any shrubbery and is practically hardy, or sufficiently so to have enabled it to pass through our last trying winter perfectly unharmed, as I think the accompanying illustration, from a photograph taken last September, when the plant was in full flower and at its best, will show. Clerodendron trichotomum is one of our best late-flowering deciduous shrubs, and is a native of Japan. It forms a shapely bush up to about 8 feet high. The leaves are large, of a dark green colour, and possess the smell peculiar to this genus. The flowers, which are fragrant, white in colour and of a starry shape, are freely produced and are strikingly portrayed, as each is surrounded by a purple calyx. To grow it to perfection this plant prefers a warm, sheltered position, and for preference a well-drained and not too heavy and tenacious soil. Such a position can easily be afforded it by the judicious planting of protective and hardier shrubs around it on the more exposed positions. At times, when the plant attains a good size it is apt to die off, so that it is advisable to grow on another specimen or two. Young plants may easily be secured by taking off suckers which readily spring up from the parent plant. These, if planted in a vacant spot in the shrubbery and transplanted every year or two, will soon develop into nice bushes, when they may be planted in the permanent positions they are to occupy.

E. BECKETT.

Aldenham House Gardens, Elstree.



A LITTLE-KNOWN FLOWERING SHRUB, CLERODENDRON TRICHOTOMUM, IN THE GARDENS AT ALDENHAM HOUSE, ELSTREE, HERTS.

THE FRUIT GARDEN.

FRUIT NOTES.

PLANTING TREES.—Without questioning for one moment the desirability of planting all the fruit trees by the middle of December, there is no gainsaying the fact that this is frequently most inconvenient, and can never be said to be really necessary because spring planting will bring equally good eventual results, and sometimes considerably better returns. However, the precise time is a matter for local decision; but amateurs are urged to bear in mind that if the trees are not yet in position, the operation of planting can be successfully accomplished at any time from now onwards to the end of March, and even later than that in cases of imperative necessity. Needless to say, the stations for the reception of the roots must be carefully prepared, and they ought always to be at least 1 foot greater in diameter than the extreme spread of the roots. Never incorporate manure with the soil unless it is exceedingly poor, and even then it should go into the second and not the top spit.

CORDONS FOR WALLS.—It is a matter for regret that the gardens attached to vast numbers of houses are so small that the inclusion of Apples and Pears in the ordinary forms of bush, half standard or standard trees is quite out of the question, because they necessarily occupy a large amount of space. The amateur, however, should always remember that if he has a wall or a good

fence 6 feet to 8 feet in height, he can have cordons, and these, with correct management, will crop heavily and regularly, and the quality of the fruit will be excellent. Where the walls or fences are low, it is recommended that the training should be oblique; but it is preferable to plant upright and allow the plants the natural habit for the first two seasons, subsequently depressing them to ensure the desired additional length of stem.

STORED FRUIT.—It is much to be feared that the stock of fruit now remaining sound in the store will be extremely limited, for the simple reason that there was a small lot to commence with; but it must not be neglected, or the full value of what there may happen to be will not be secured. As frequently as the time can be spared, each individual specimen ought to be closely examined, with a view to its immediate use or destruction, according to the condition in which it is found. To allow tainted fruits to remain among sound ones is always wrong, and never more so than when the supply is severely restricted. Look the fruits over at short intervals; then, if one here and there is found to be going wrong, it can be removed before contaminating others.

WINTER WASHING.—Except in very late gardens all washing of trees with the strong solutions that are permissible when the plants are at complete rest should be finished by the end of the month. In order to secure the full benefit of washes it is commonly essential to scrub them into the bark on the accessible portions of the tree; and there will be a real element of danger when such a task is attempted after the buds have, even though imperceptibly, commenced to swell, since it is then all too easy to dislodge them. In any case, the brush must always run in the same direction as the buds, and its bristles should be well worked into forks or crannies with the object of destroying enemies that may be lurking therein, and also eggs, which are commonly deposited in such comfortable positions. It ought not to be necessary again to remind the tyro that washes containing caustic soda must always be handled with the greatest care and kept from contact with the skin or the clothes.

PRUNING GOOSEBERRIES. — In districts where birds do more than ordinary damage among the buds on Gooseberries it is the practice to tie up the plants in cone-like bundles in the autumn, frequently to dust the outer parts which are exposed with lime when they are damp, and to defer the usual pruning until the spring. Assuming this to have been done, it is necessary now to release the ties and finish cutting as quickly as possible. In gardens it is the general custom to cut in very hard, with the natural result that fruits are not secured from any portion of the bush that is not already spurred; but the system is not to be recommended, for the simple reason that Gooseberries will yield grandly on the young wood, and the fruits there produced are usually superior in quality to those on the old spurs. FRUIT-GROWER.

THE TOWN GARDEN.

POTTING OFF.—This is a phrase or expression common to gardeners when dealing with the bedding plants, such as Zonal and Ivy-leaved Pelargoniums, inserted as cuttings during the past autumn. "Potting off," therefore, is simply the individualising of those plants—giving each a pot to itself—which have passed the winter in "store" or "cutting-pots." Such work should be proceeded with at once in order to obtain those bushy, well-furnished examples that contribute so much towards the ensuing summer's display. Points to remember in doing the work are that these Pelargoniums — still by many erroneously called Geraniums—dislike very rich soils, and are equally opposed to loose soil about their roots. Where Chrysanthemums are grown in pots, the old balls of soil, if broken up and passed through a fine sieve, will, with sand added, do uncommonly well for all classes of bedding plants. Clean and dry pots are always important, while in firm potting the operator is not likely to make any mistake. Firm potting in comparatively poor soils promotes sturdiness of growth, the forerunner of a generous flowering.

TUBEROUS BEGONIAS.—Where these are still in their winter quarters they should be looked over at once, carefully examining them to ascertain if any are dead. If kept free from frost, the percentage of deaths is very small. The best way to restart the tubers in growth again is to place some fairly good soil in boxes and arrange the Begonias thereon. A soil similar to that recommended for potting off will do quite well, and if loosely set in the boxes, the tubers can be pressed into position quite readily. In doing this the amateur should bear in mind that the hollow or central portion of the tuber is that from which the new growth springs, hence it should appear uppermost. Conversely, the rounded or convex exterior is that which should come into immediate contact with the soil. Soils ordinarily moist will be quite suitable for the work, placing the boxes on a greenhouse shelf in a temperature of 40° or rather more.



A BOWL OF LILIES OF THE VALLEY GROWN IN PEAT FIBRE WITHOUT DRAINAGE.

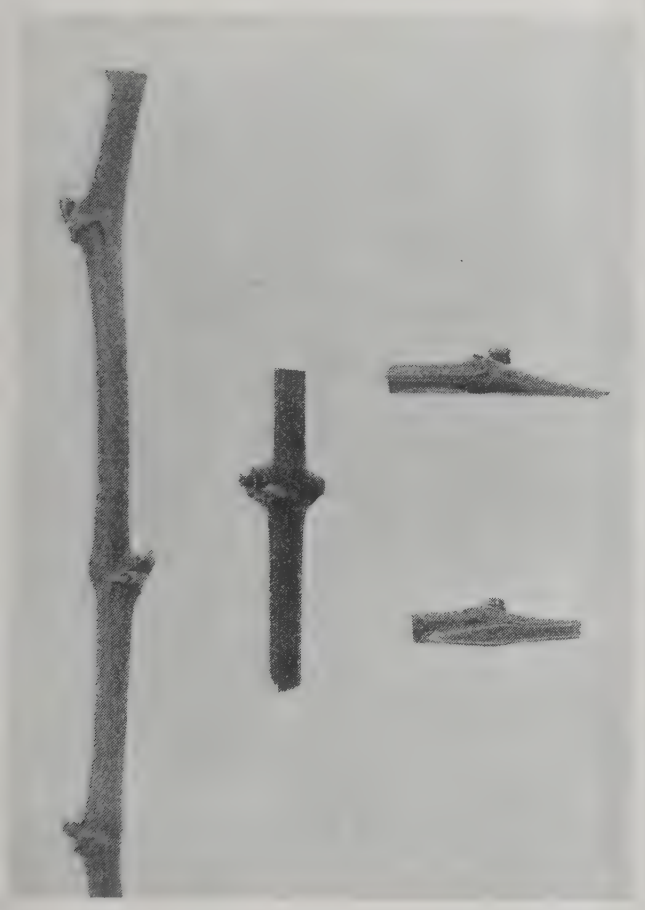
GLADIOLUS.—These should also receive careful examination now. As a rule, the bulbs—corms—are wintered in corners or places unduly warm for them, and when to this darkness is added—for the roots are not infrequently stored in lidded boxes—a weakly early growth ensues which is detrimental to success. Their best winter quarters are those secure from frost and removed from the influence of much warmth, and in these they sleep the long sleep which means so much to them. At the moment of writing well-kept roots should be quite dormant, and the only work necessary is to see that growth has not been unduly excited by the conditions indicated. Amateurs, in all probability, too lightly regard the places or positions in which the plants are stored, oblivious of the importance of a long undisturbed sleep to many a plant.

UNQUALIFIED SUCCESS.—In the accompanying illustration of the Lily of the Valley the reader will get a good idea of the success that is possible with this ever-welcome plant. Incidentally, too, it demonstrates the value of "playing a waiting game," since the original of the picture was one of many exhibited at the Temple Show by Mr. Robert Sydenham—the pioneer, I believe, of the method under notice — in May of last year. Nothing could be more satisfying or complete than such success as is depicted by the illustration. It is of the greater value at the moment, since anyone who feels so disposed may make a start at once, the Lily of the Valley being of such an accommodating nature and so completely hardy that for flowering at such a time the plants might long remain in the open if given slight protection so soon as the leaves begin to unfold. A cold frame would be of assistance to secure the purity of the flowers. The Lily of the Valley, too, unlike plants of a bulbous or tuberous-rooted nature, is open to treatment at almost any time, retarded crowns being necessary when flowering at an unseasonable moment is desired. For spring flowering the single crowns imported last autumn would be the best, and may be had in a plump condition from most bulb-dealers. S. N. N.

GARDENING FOR BEGINNERS.

PROPAGATING VINES FROM BUDS OR "EYES."

ESPECIAL pleasure is always derived by amateur gardeners who are able to point out to their friends and neighbours Grape Vines that the grower has succeeded in raising from buds or eyes, and that have been grown on subsequently until large enough to plant out in their permanent quarters under glass. And, when



1.—VINE "EYES" PREPARED FROM LAST YEAR'S WOOD.

these same Vines come into bearing, it is an achievement that any amateur may be well pleased with.

Raising Vines from eyes is a popular and common method of increasing stocks of the different varieties. It is a rapid process, for capital young and well-seasoned Vines may be had ready for planting out in their permanent quarters within twelve months. Although a comfortable glass house with a gentle bottom-heat is much to be desired, those not possessing such a structure should not be deterred from essaying such a venture. Any simple glass structure, such as many nowadays possess, may be made to answer the purpose of raising Vines with just a small amount of trouble on the part of the grower. Fortunately, the space required in the first instance is not by any means large. Any beginner who has succeeded in erecting a rough propagating-frame for raising stock of other subjects may turn this valuable utensil to the same purpose for propagating Vines from buds or eyes.

February, and about the middle of the month, is an ideal time to commence the work of propagation. The shoots or growths from which the eyes are to be obtained are usually selected when the pruning is carried out in December. Many growers prefer to have these before Christmas, if possible, but whether they be procured a trifle earlier or later is of little consequence. It is usual, when the shoots are obtained a few weeks before they are actually required, to tie them in bundles, afterwards inserting the ends in soil and subsequently placing them in a cold position until they are wanted. At this juncture it is important to mention the fact that the shoots should be those of the current year's growth.

The preparation of the eyes is the next consideration, and that the process may be better understood and appreciated by the reader I have illustrated in Fig. 1 the progress of their evolution. On the extreme left is a section of medium-sized, nicely-ripened growth of last year's (December) pruning having four plump buds, each of which will make a serviceable eye if cut in the proper manner. A strong, sharp knife is necessary for this work, as the cut should be made quite clean. The eye should be about 1½ inches in length, and is prepared by making a slanting cut, starting on the upper portion of the stem and leaving the bud about equidistant between the two ends of the severed eye. On the right of the picture in Fig. 1 is depicted, first, an eye just as it is severed from the shoot, and in the second case, at the bottom, the eye turned on its side to illustrate the slanting character of the cut that is made when preparing it.

The next thing to be done is to pot up the eyes individually in 3-inch pots. Fill each pot to within half an inch of the rim with a fibrous soil, and then proceed to insert the eyes, cut-side downwards. A difference of opinion exists as to whether the bud should be left visible just above the surface soil or whether it should be slightly covered as represented in the illustration Fig. 2. Success attends both methods, so that it matters very little which of the two be adopted. The soil should be made fairly firm by well pressing it round about the embedded eye. Plunge the pots in Cocoanut fibre arranged in a propagating-frame or any quarter of the glass house where a gentle bottom-heat can be maintained.

Within a few weeks the warmth and moisture will induce the eyes to break into growth, and this is a fairly safe indication that the rooting process is going on. A bottom-heat of from 60° to 70° will answer very well. The advantage of plunging the pots is seen in the less frequent watering that has to be given, and this is a point in the culture well worth studying. Always water with tepid water, otherwise a chill might be experienced at a crucial period of the rooting process. When once the pots get full of roots, and growth of some 9 inches to 1 foot in height has been reached, repot the young Vines into pots some 7 inches in diameter. By the closing days of June the pots should be full of roots, and, if desired, the young Vines may be planted in their permanent quarters then. If winter planting be preferred, stand the young Vines outdoors in a sunny position in August, ripening them during the autumn and allowing them to remain there until frost and bad weather demand shelter for them.

D. B. CRANE.



2.—THE "EYE" INSERTED IN A SMALL POT CONTAINING PREPARED SOIL.

RIDGING HEAVY SOIL.

THE proper time to commence the work of ridging soil is the early part of autumn, so that the winter rains, frosts and snows may pulverise and sweeten it. As such work, however, cannot always be done then, I would advise inexperienced cultivators who may possess a very clayey plot in their garden to at once very roughly dig it up and throw the lumps of soil unbroken into ridges. Leave the ridges so until the month of April. In the meantime both frost, snow and rain, also air, will have a most beneficial effect on the rough lumps. While dry in March and in April the soil will appear to be very hard, although some of the outer portion will have crumbled, and any attempt to break it up will prove difficult. Immediately after a heavy rain at that time or several showers the lumps will break up readily.

B.

FEEDING BULBS IN POTS.

AN experienced cultivator knows exactly at what stage of growth of the plant it is advisable to feed in order to obtain the best results. If the plants are wanted for exhibition, the feeding is a very important matter. For instance, bulbs potted early in October will possess more roots the following February than bulbs that were not potted before the middle or end of November. Consequently, it is safer to feed the former in February than the latter. If bulbs are freely fed before the flower-stems show plainly, there is a danger of the flower-spikes being unduly long, and in the case of Hyacinths the individual flowers separate too widely, with the result that the spike, as a whole, will be loose instead of compact. Sometimes the

flower-stems are very prominent and the leaves are too short and appear stunted. In such a case judicious feeding rather early will do a lot of good if the bulb possesses plenty of roots. Artificial manures of a burning nature are not the best to use. A small quantity of guano—one teaspoonful divided between two 6-inch pots—will do much good if sprinkled on once a fortnight. In the meantime a few applications of clear soot-water will help; it will assist the growth and improve the colour of both leaves and flowers. Bulbs should also be treated as coolly as possible; then the flowers will be richer in colour. Much heat or undue forcing will lessen the intensity of the colours. SHAMROCK.

IS SPRING AND SUMMER BEDDING DYING OUT?

SINCE the letter from our correspondent Mr. A. Cranstone on the above subject appeared in our issue for January 28, we have been inundated with replies, and regret we cannot find room for them all. We select the following as being of more than usual interest:

YOUR correspondent A. Cranstone evidently had some justification for reading the paper he referred to on the above subject. I am not at all surprised that some of the members of the association referred to said "Yes" and others "No" in the discussion that followed the reading of the paper. It is undoubtedly the case that in some large gardens the number of flower-beds is lessened and in others increased. This is brought about chiefly with a view to increasing the general effect and beauty of the garden, but in a few instances it is with a view to economise. The formal bedding-out which obtained thirty years ago is now less favoured, and if such beds are fewer in number, there has been more than a corresponding increase in the number of herbaceous borders and in the cultivation of plants in a less formal manner. For more than ten years I had charge of a large establishment where about 30,000 bedding plants were used every summer in the flower garden proper; but a number of the beds were eventually turned over, and the general effect was increased. The cultivation of hardy flowers was also given more attention. If we include gardens of all sizes, I have no hesitation in saying that both spring and summer bedding are very much alive in these times, much more than in days gone by. Furthermore, the demand for cultural advice is increasing every year, too. AVON.

JUDGING by what is seen in public parks and gardens, and in by far the majority of private gardens, there seems to be no decadence in the bedding-out arrangements so long existing. Certainly beds may be filled with hardy perennials largely, and have annuals, biennials, tender plants and bulbs interspersed among them, and look very beautiful; but while evidently a popular method of filling those borders found at the margin of lawns, it does not satisfy those who look for more volume of colour, such as bedding plants give. Summer bedding came into vogue some seventy years since. At first it was limited to comparatively simple and by no means attractive plants. But with the advent of the old Tom Thumb and Manglesii Pelargoniums, a few good Verbenas, Petunias, Ageratum mexicanum, Calceolarias Prince of Orange and amplexicaule, Gazania splendens and a few others, colour masses became possible, even though many of them were crude. Few plants for summer bedding had to undergo fiercer criticism than scarlet Pelargoniums, yellow Calceolarias and blue Lobelias, and their use so largely in combination, which made the late Dean Hole cry out for a bed of Parsley on which to refresh his eyes, did materially for a time bring bedding into disrepute. Still, it is surprising to see how, in spite of this criticism, these plants still play a big part in summer bedding. It is very noteworthy that one carpet-bed planted at Hampton Court last year attracted far more attention from visitors than any other bed, a fact which shows that the public taste is not all with the natural style yet. But filling flower-beds with tender plants only necessarily left them bare all the winter, a very grave objection to bedding-out. One of the earliest gardeners to overcome that objection was John Fleming of Cliveden. I saw one of his very striking, and then novel, spring flower gardening displays there in May, 1866, and, looked down upon from the front terrace, the effect was excellent. His plants were crimson and yellow Wallflowers, white, purple and blue Pansies, double Daisies, pink Silene pendula, blue Myosotis, Limnanthes Douglasii and a few others planted in large masses. But the marvellous development in spring-blooming bulbs had not commenced in Fleming's day. Had he then, as we have such a wealth of Hyacinths, Tulips, Daffodils and so many others now so plentiful and so cheap, it is certain they would have been widely used at Cliveden. But spring flower gardening has both benefited and developed under the labours of those hardy plantsmen who set about catering for its needs and requirements. We had then no double Arabis, and Aubrietias were limited to one or two pale-coloured varieties. Now we have many far finer and richer in hue. We have of late made remarkable progress in getting very early-flowering double Daisies, so easily raised from seed; Primroses and Polyanthuses, but the latter, especially, have grown into many colours, very fine flowers and blooming early, and they are also easily raised from seed. Both Pansies and Violas have grown from the few to the many, and are to be had in abundance cheaply. All these, with other hardy plants readily stored during the summer on shady or cool borders for use again, serve to coat the surface of flower-beds all the winter, and if it be desired to break their flatness, a few quite small conifers or fitting evergreen shrubs fill in admirably. When with these are associated many beautiful early-flowering bulbs, as is now so commonly the case, what wonder if this form of flower gardening is so popular. Of course, it all means work, but all gardening means work, and the more the better. It also means rich and beautiful variety in flower gardens. All that, too, is most welcome. A. D.

YOUR correspondent who has recently asked the question in THE GARDEN (page 39) "Is spring and summer bedding dying out?" has touched upon a subject which is far-reaching—more so, indeed, than appears on a first consideration of it; in fact, it almost resolves itself into the simpler question, "Is summer bedding, as we know it to-day, really worth the trouble and attendant expense?" My answer is that, taken all round, it is not. My mind goes back thirty-five years, when it was considered the correct thing for beds and borders in large establishments to be filled with subjects raised almost entirely in heat. I have before me as I write a list of some of the ideal plants in those days, and I make a short extract: Pelargoniums—golden tricolors, Mrs. Pollock and Lady Cullum; silver tricolors, Beauty of Caulderdale, Lass o' Gowrie and Prince Silverwings; white edged, Flower of Spring and Bijou; gold and bronze, Maréchal Macmahon and Her Majesty; yellow-leaved, Crystal Palace Gem; Alternantheras, Perilla nankinensis, Purple Beet, Pyrethrum aureum, Cerastium tomentosum, Achillea tomentosum, Alyssums, Cerastium Biebersteinii, Echeverias, Lobelia Crystal Palace compacta, Calceolarias floribunda, Prince of Orange and others. These are a few of the more important "stock-in-trade" plants that the gardener of that period was supposed to work upon. Everyone who had to deal with them knows the labour involved and the anxiety until they were safely bedded out. And when did that take place? Not always by May; often it was not until well on into June that the most tender was deemed "hardened off" enough, and then it depended on the weather. And the idea seemed to be to keep everything down to one level, to prevent those that showed signs of exuberance from overstepping the limit. But there came, in very many places, a revulsion of feeling. The bedding plants themselves did not, and could not, constitute a flower show, and so it gradually came about that herbaceous plants sprang into popularity. The Pæony, which up to now had been known in places by two examples at the most—red and rose—began to be worked upon, and now, thanks to hybridisation and good culture, we have many lovely examples. And what was true of the Pæony obtained also in the Delphiniums, Campanulas, Oriental Poppies, Anemones, Dielytras, Irises, Spiræas, Liliums, Kniphofias, Phloxes, Hollyhocks, Rockets, Hemerocallises, Gentians, Erigerons, Gypsophilas, Heleniums, Asters (Starworts) and Doronicums. All these and others came into greater prominence, and the day when carpet-bedding made its exit was the dawn of a new era in gardening. WALSHAM.

IN reference to this interesting query, I do not think it is; but there is a tendency to change the style of bedding, both as regards the shape of the beds and the material employed for them. Beds of a simple pattern are now generally preferred to those of a more intricate design. Perhaps there are fewer beds immediately in front of the mansions, but if so, they have been extended in various parts of the grounds. Hardy plants have greatly gained in favour, and there are gardens in which the use of tender bedding plants has been dispensed with. The propagating and growing on of tender bedding plants in large quantities entails considerable labour. A great range of glass is necessary for the large and varied classes of fruits and flowers required by many modern establishments. Although many thousands of Geraniums, Fuchsias and similar plants have been grown in vineries, Peach and other houses, it is generally conceded that this process is not good either for the fruit or the plants, especially when the latter are crowded together on the borders, as they perforce have to be in many cases. This, together with the fact that the past two or three seasons have been too wet for the well-being of many subjects, especially Geraniums, have done much to make this class of bedding unpopular in many establishments. Annuals, both hardy and half-hardy, are largely employed in bedding. Improved strains of many varieties of annuals, such as Asters, Antirrhinums and Stocks, are used with advantage. In some cases it may be necessary to renew the beds during the season when annuals are employed; but even then the labour is small compared with that required for the production of tender plants, to say nothing of the housing through the winter. Hardy perennials, and even shrubs, are propagated and grown on for the purpose of bedding in many gardens. The above remarks apply to summer bedding. As for spring bedding, I am of opinion that it is increasing in favour. In some establishments spring bedding is a matter of more importance than the summer display. In others the beds which

were formerly bare during the winter and spring months are now made charming by the free planting of bulbs and various early-flowering plants. Many owners prefer a clear expanse of lawn in the immediate vicinity of the mansion. The management of lawns is now given more attention than formerly (thanks to several well-known authorities emphatically pointing out the necessity). COLIN RUSE.

MR. CRANSTONE, in your issue of January 28, raises the question as to whether spring and summer bedding is dying out. He says, "The tendency nowadays is to level down the beds immediately in front of the mansion." Possibly in a few cases this may have been done, as your correspondent suggests, as a saving of expense and labour; but in the majority of private places spring and summer bedding, in my opinion, is carried out quite as much as, or more so than, formerly, and is made a feature of the establishment. Even if the tendency is that way, surely your correspondent does not assume that in front of the mansion is the only spot where spring and summer bedding may be done. The system carried out in some of the London parks of facing up shrubberies with flower-borders containing the usual spring and summer flowering subjects might well be applied to many private establishments, even if the elaborate design which one always associates with a large mansion were objected to. To my mind this style of bedding is much more beautiful, as the shrubs provide a fitting background for the various flowers. The gardener in a private place must be guided by the requirements and tastes of his employer as to the style of flower gardening adopted, and I venture to state that the majority of employers like to see some beds in close proximity to the mansion, and also like to see a good display of flowers during the spring and summer months. There is no doubt that the tendency nowadays is to go in more for wild gardening, Japanese gardening, or rock gardening, as the case may be. All these phases of gardening have their proper places and are very beautiful when well done; but I maintain that spring and summer bedding is one of the most essential features of a private establishment when carried out in an intelligent and attractive way. J. WOOD.

The Gardens, St. John's Lodge, Regent's Park, N.W.

NEW PLANTS.

ODONTOGLOSSUM CRISPUM PEACOCK.—A magnificent variety which secured a first-class certificate. The flowers are of exceptional size, quality and form. The colour is white, with a large and well-defined blotch on each segment. It seems a matter for regret that a more suitable name has not been found for such a grand variety. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Tetbury, Gloucestershire.

Odontoglossum Harwoodii.—This is another Odontoglossum to gain the high award of a first-class certificate. It is quite a distinct break among the genus, no other variety approaching it in colour. The predominant colour is golden amber; the perianth is spotted in the centre with very dark, almost black, crimson blotches. It was raised by crossing O. wiganianum and O. maculatum auriferum. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

Each of the following received an award of merit:

Brasso-Cattleya Euterpe.—Parentage: Cattleya schilleriana × Brasso-Cattleya digbyano-Mossiæ. The flowers are of average size and of delicate colouring. The sepals are dull bronzy red and the petals soft rose. The lip is pale mauve with a yellow throat, but not so heavily fringed as might be expected from a digbyano hybrid. Shown by Lieutenant-Colonel Sir George Holford.

Cypripedium Duke of Connaught.—A very bold variety of striking appearance. The plant shown carried two fine flowers. The upright dorsal sepal is green in colour, with almost black spots and a clear margin of white. The petals and lip are of greenish brown. Shown by Messrs. Armstrong and Brown, Tunbridge Wells. Parentage: C. Beryl × C. nitens.

Odontoglossum Mariæ.—Quite an uncommon-looking hybrid with small and attractive flowers. The perianth is chequered and of many colours, giving it a tortoiseshell appearance. The lip, of a dull reddish hue, is broad for the size of the flower. Shown by Messrs. Charlesworth and Co. Parentage: O. Uro-Skinneri × O. Harryo-triumphans.

Miltonia Warscewiczii picta.—Unlike the better-known Miltonias, the new-comer has comparatively small flowers borne in a clustered, upright inflorescence. The lip is of a chocolate pink colour, with a distinct white tip. The petals and sepals are of a brownish tint, each being tipped with bright golden yellow. Also shown by Messrs. Charlesworth and Co.

Adiantum farleyense Glory of Moordrecht.—That this is a reputed sporling raised from spores taken from the well-known A. farleyense will come as a surprise to those Fern specialists and lovers of the tribe who are not a little sceptical on this point. The introducers, however, are emphatic in their statement that a solitary pinnæ, the only one ever seen by them on the thousands of plants grown, did so yield a few fertile spores, from which the plant under notice was first raised. Come from where it will, the plant is good and distinct—distinct in its erect, self-supporting habit and in the decidedly crispate inclined character of the pinnæ as a whole. On the smallest plants shown the oldest fronds—those at ground-level—were unmistakably typical of A. farleyense, the succeeding fronds assuming the characteristic we have described. The new-comer is obviously of merit, and we welcome it as a sister plant and companion to one which has long held its place alone. Exhibited by Mr. A. A. Fabius, Emsworth, Hants.

All the foregoing plants were shown at the Royal Horticultural Society's exhibition held on January 31, when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Rockery borders (*J. F.*).—The Helianthemums would, we think, be too free and spreading for borders so narrow as those you describe. You might, however, employ such things as Campanula muralis, C. pusilla, C. p. alba, Phlox setacea Vivid, P. Nelsonii, P. atropurpurea, P. amœna, Achillea Clavennæ, A. tomentosa, Saxifraga Guildford Seedling, S. Stansfieldii, Aster alpinus, A. subcæruleus, Lychnis Viscaria, Primula Sieboldii, Hepaticas, Adonis vernalis, Iris pumila, I. nudicaule, together with Anemone coronaria, A. fulgens and other plants. The whole of these are dwarf-growing and free-flowering. The small amateur of necessity places his greenhouses where he can, and usually rejoices in the very moderate number of successes that follow. You do not say what you wish to grow in it. If no wall or high fence is near the proposed back part, a span-roofed structure would be best, and *vice versâ*, the former affording light which the three-quarter span or hip-roofed structure with wooden back would shut out. You are already dealing with the shady side of your habitation, and should therefore embrace all the possible remaining light. A span roof adds materially to this and, while permitting of stages on each side of a central pathway, prevents the plants becoming leggy, as they usually do when the house is constructed on the hip-roofed plan in places similar to that you describe.

Hardy annuals (*Orange*).—Some good kinds for your purpose would include Mignonette, Nemesias in variety, Linum grandiflorum rubrum, Limnanthes Douglasii, Candytuft, Alyssum maritimum, Swan River Daisy, Eschscholtzias, Dianthus chinensis in variety, D. Heddewigii, Dimorphotheca aurantiaca, dwarf Marigolds, Chrysanthemum coronarium, C. carinatum, Marguerite Carnations, Tom Thumb Antirrhinums in variety, Godetias, Phacelia campanularia and others. Of those requiring to be raised in heated frames Verbenas and Petunias are worthy of mention, the dwarf Asters being also desirable.

Herbaceous border (*J. F.*).—If you desire but few flowering plants prior to August, you are missing some of the finest groups of plants, as Pyrethrums, Pæonies, Columbines, Larkspurs, Irises, Globe Flowers and many more which should of necessity be included in a border of over 100 yards long. Such a border might, if arranged to plans by a specialist, be attractive at all seasons, though leaning decisively to the season you have named. The border being of such importance, we have thought it well to enquire whether you prefer all late summer flowers, to the exclusion of those flowering earlier, before giving you a definite list. On receipt of your reply a list of suitable plants shall be given.

Californian Irises (*E. S. C.*).—The general experience of the behaviour of imported plants of these Irises is that they fail, while seedlings raised at home are frequently a complete success. Occasionally the seedlings excited into an early growth by the changeable weather experienced in winter-time suffer from spring frosts in March and April. The most difficult to cultivate are such as watsoniana, douglasiana, Hartwegii and bracteata, these all appearing to require the warmer and drier conditions of their native home. Grown in your district they would need a good deal of protection and a very warm, dry corner. Many of the kinds are of considerable beauty and interest, the species being well known and quite distinct. It is highly probable that the majority, if not all of them, could be obtained from Messrs. Wallace and Co. of Colchester in established home-grown examples. In any case you should strive to obtain such, or raise the plants from seed, sown preferably as soon as available in late summer or early autumn.

TREES AND SHRUBS.

Trees as wind screens (*D. Culross*).—You will find Abies Douglasii (or, giving it its current name, Pseudotsuga Douglasii) preferable to the common Spruce for the purpose you have in view. In an exposed position, however, it is liable to have its top injured by wind. Thuya plicata, or Thuya gigantea as it is often called, would also suit your purpose admirably. It is quite as hardy as the Douglas Fir, but its habit more closely approaches that of Cupressus lawsoniana. For a very exposed position the Austrian Pine proves to be one of the very best wind-breaks. It is, however, less ornamental than either of the above-mentioned trees. Both the Douglas Fir and the Thuya thrive remarkably well in Perthshire, and you ought to have no difficulty in finding specimens of the two trees and so judging for yourself as to their respective merits for the position you wish them to occupy.

Pernettyas not fruiting (*Cumbrian*).—It is not possible to give you the reason for one of your Pernettyas fruiting well each year and another plant growing near by being destitute of fruit; but we should imagine that it is due to the female organs being imperfectly developed in the one plant. An examination of the flowers at

flowering-time will reveal this. You may easily distinguish between male and female Holly flowers. In the case of the male flowers the stamens will be found to be strong and healthy and the anthers to bear pollen. The ovary, however, will be found to be very rudimentary, and often scarcely noticeable. In the female flowers, on the other hand, the ovary will be found to be well developed and occupying a conspicuous position with a flattened stigma. Stamens are also present, but they are of a very rudimentary character. As a rule, the anthers are the worst developed part, and in those which have grown best it is rarely possible to find a trace of pollen. It occasionally happens, however, that both male and female trees bear odd flowers in which the organs of the opposite sex are fully developed, but the occurrence is rare. Female-flowered trees sometimes mature their fruit when at a considerable distance from male trees, but in such instances a very small percentage of good seed is obtained. Those which are good have probably resulted from insect-fertilised flowers, for bees will carry pollen a considerable distance. Trees in light places fruit better than those which are growing in shade.

THE GREENHOUSE.

Palm for examination (*W. C. L., Hornsea*). The plant does not appear to be attacked by either insect or fungoid pest. We are of the opinion that failure is due to improper watering and potting, probably combined with a severe check after potting owing to a fall in temperature. On examination we found that the roots had not entered the new soil, and that the centre of the ball of soil was dust dry. Moreover, the plant had not been potted firm enough, as the soil fell to pieces when turned out of the pot. As we understand that the plant has been sent from Argentina, it may, of course, have suffered from drought on the voyage; but even this would not account for the loose condition of the soil and the poor root action. All pot plants when dry should be well watered and allowed to drain for two or three hours before potting.

Fumigating with cyanide of potassium (*A. H. Cobham*).—Yes; it is possible to destroy mealy bug by the use of this fumigant, but we again utter a warning note regarding the danger to life attending its use. It is probable that one inhalation of an impregnated atmosphere would be fatal; hence the need not only of precautions against breathing the poison, but also of keeping collected while operating. The materials for fumigating are measured by the cubic capacity of the house; and a rough-and-ready way of obtaining this is to multiply the length of the house by its width and the height to the eaves. To this must be added the capacity of that part of the house above the eaves. The necessary materials are water, sulphuric acid and cyanide of potassium. In a small house one earthenware receptacle of basin shape should suffice; but if the house extends to 25 feet or more, two or more of the receptacles will be needed. The operation should take place in the evening, preferably in cold, damp weather, a low temperature being almost essential. The quantities to use are one of cyanide to two of sulphuric acid to four of water. To destroy mealy bug on greenhouse plants, 2oz. to 3oz. of cyanide to 1,000 cubic feet of air are required, with the other material in proportion. After closing the house, arrange the receptacles at suitable distances apart. Water to the required quantity is then placed in each receptacle; the sulphuric acid is then added and stirred with a stick. The cyanide, lying ready wrapped in brown paper, is then dropped into each receptacle, one after the other, the operator moving away as quickly as possible, leaving the structure without a moment's delay once the last packet is dropped, and locking the door behind him. Ingenious tilting expedients from outside the house have been tried, but these are unnecessary if the cyanide is wrapped in stout paper. A 3oz. dose will have done its work in about forty minutes; but the ventilators may well be left closed till the next morning. Great care must, of course, be exercised in opening the house after fumigating. Except in extreme cases we do not advise cyaniding, owing to its dangerous nature. Vaporising with nicotine or spraying with one of the prepared insecticides will, if properly and persistently applied, keep all insect pests in check.

Narcissus buds turning yellow (*Anxious*).—This may be due to too much or too little water or to continued stagnation. In a room at the temperature you mention the heat would be of an arid character, and what you have experienced would quickly ensue if either of the excesses named has existed. Another frequent cause is the too early introduction of the bulbs into the house; that is to say, before the plants were well rooted or sufficiently so for the purpose in view. We regret being able to give a more definite reply owing to the lack of information supplied.

Treatment for various Orchids (*H. R. S.*).—Lælia autumnalis requires a great amount of strong light, short of the direct rays of the sun, and where this section is well grown separate divisions are set apart for their accommodation, or they often fail to bloom, even if large bulbs are produced. Your plant, however, may flower next season if you give it the lightest position at command and repot now if such a proceeding is necessary. Odontoglossum maculatum should be placed at the basement end of your house and not be too heavily shaded, as it belongs to the Mexican section of Odontoglossums. No spike will appear now till the current year's growth is fully matured, when only sufficient water should be given to keep the pseudo-bulbs plump. We think too much moisture at the base, coupled with excessive shade, has been the cause of no flower-scapes. Directly these appear more water can be applied. Do not let the plants of Odontoglossum Rossii majus exhaust themselves through over-flowering, for this is the cause of many failures. We should be rather inclined to remove any additional buds that appear on the plants that have been flowering since September, or cut each bloom directly it is fully expanded. Oncidium flexuosum is not one of the easiest Orchids to cultivate, and the best results are obtained when it is grown in an intermediate house, say, with a temperature of 55° Fahr. It is considered a very free-flowering Oncidium, and no doubt scapes will make their appearance after the completion of the next pseudo-bulbs if you arrange them at the warmest part of your house, and admit all the light possible without doing injury to the foliage. In a few weeks we hope to publish an article dealing with a house similar to yours.

FRUIT GARDEN.

Black Currant shoots infested (*N. B.*).—All those buds which have a round, swollen appearance are attacked by the big-bud mite. We cannot do better than advise you to adopt the following treatment, which has proved so successful with Messrs. Pearson of Lowdham: Use 2oz. of soft soap and 4oz. of Quassia chips to one gallon of water (soft, for preference). Steep the chips in cold water for some hours; then bring the water to boiling point and simmer for twenty minutes until the bitter principle is extracted. Dissolve the soap in a separate vessel and mix with the Quassia liquor while warm. When hard water is used, care must be taken, or the soap will curdle if too hot or too cold. Never use anything but the best quality of soft soap. Spray with this mixture as soon as the leaves open—generally the end of March—and continue at intervals of ten to fourteen days till the end of May. The mites are migrating during all this time, and they are specially open to attack during the early part of the season, as they cannot find any fresh cover. Of course, when they are safely ensconced in the new buds it is absolutely useless to attack them.

Vines failing in production (*Vitis*).—The analysis of soil shows a healthy condition of things as regards the composition of the border. The roots often become sick, enfeebled and decayed; perhaps from overcropping or from attacks of red spider on the foliage; or it may be from over or under watering, or from some other disturbing cause. In such a case it does not matter how good, strong or plentiful the food available may be if the roots are unable to make use of it by reason of their weakness, and we suspect this is the case with your Vine roots. Your best way to bring the Vines round again is to clear away the surface soil of your Vine border until a good body of roots is found. You may have to take 5 inches or 6 inches or more. Then over the roots place a dressing of the following soil compost 5 inches deep, treading it firmly down. The object of applying this dressing of soil is for the purpose of creating a mass of new roots and also to retain them near the surface. As soon as the dressing of soil compost is placed on the border cover it over with fresh leaves, or leaves and strawy manure mixed, to the depth of 1 foot and leave on until the middle of April. To one cartload of good turfy fibrous loam cut from old pasture land add 40lb. of bone-meal, one barrow-load of wood-ashes, the same of lime, half a bushel of soot, one barrowful of brick ends broken to the size of pigeons' eggs (and the dust from the broken bricks as well), and the same of old mortar rubble. Mix the whole together and apply as advised at the earliest opportunity.

MISCELLANEOUS.

Drainage to flower-pots (*F. B. C.*).—There are different arrangements for allowing the water to drain away freely from the base of flower-pots; but at the same time your idea is new to us. It should certainly fulfil its purpose well if it can be carried out in a practical manner. It seems to us that the fixing of the three separate pieces to the bottom of the pot will not be an easy matter, but that, of course, is a question for a professional pot-maker. Another consideration that will weigh heavily in estimating the value of this pot is the price at which it can be sold compared with those of the ordinary type. If much dearer there is not likely to be any great demand for it, however useful it may be. Of the different ideas we have met with to attain the same object as that at which you aim, perhaps the best is to make the bottom of the pot somewhat thicker than usual, and carry three deep grooves from the central hole to the sides, each groove bisecting a smaller drainage hole arranged triangular-wise. Another plan is to make the pot with a deep rim at the base, the actual bottom being thus kept above the ground. In this rim three or four openings are made to allow the water to run away at once, the pot thus practically standing on either three or four legs.

Sowing Mistletoe seeds (*A. P. F.*).—The seeds are found to germinate better when inserted in smooth bark on young trees. They will, however, germinate on old trees, but clean, smooth bark is at all times preferable to that which is old and rough.

Cutting back Tree Carnations after flowering (*J. R. N.*).—The Tree Carnations may be cut back to within two or three eyes of the old wood after flowering, but it all depends on the size of the plants, whether you want them to grow into large plants or to keep them as small as possible.

Culinary Peas (*Anxious*).—Among the best earlier sorts are Gradus, Duchess of York and Early Morn. Among the seconds the following are excellent: Duke of Albany, Alderman and Quite Content; and for late there is nothing better than Essex Wonder, Autocrat and Gladstone. The early crop should do well on your deeply-dug and manured soil, although it is light, especially if the surface of the soil is mulched over with rotten manure laid on 3 inches deep. But for midseason and late crops, if you must have the best returns, we advise you to dig trenches over and fill with manure as for Celery. The crops returned will well repay you for extra labour and expense.

Brussels Sprouts not buttoning (*F. C. I.*).—We can only suggest two reasons for your Brussels Sprouts not turning in and forming buttons as they ought to do. They will not do so now; it is too late. One reason is that perhaps the seed was sown too late; the other, that the seed was at fault. The Brussels Sprout takes a long season to grow and mature a good crop. The seeds should be sown at the end of March, and the seedlings planted out in their growing quarters early in June. Sometimes it happens (although every possible care has been taken to prevent it) that, while the seed parent is in bloom, the flowers become impregnated with the pollen of the flower of some other of the Cabbage tribe, and thus the resulting crop is spoiled.

A lawn difficulty (*Pepper*).—We are afraid that you will find a difficulty in clearing your lawn of Buttercups without disturbing the existing surface. As we do not remember ever having seen a lawn sown with salt for the purpose of killing the weeds, we cannot say how it would answer. It would probably have the desired effect, but how the young grass would start again next spring is a doubtful matter. The soil must have been full of Buttercup seeds when the ground was prepared. Salt does not retain its killing properties for any great length of time, and afterwards acts as a fertiliser, so it is probable that your idea would turn out satisfactorily. The only other plan we can recommend is to clear the existing turf off and relay the lawn with good clean turf.

Names of fruit.—*T. C., Yeovil.*—2, Brandy Apple; 3, Hoary Morning; 6, King of the Pippins; 8, Dutch Mignonne; very yellow fruit, Golden Noble. Other numbers were all detached and mixed up.——*E. B. Rudgley.*—Apple Beauty of Kent.——*J. Higgs.*—Apple Lamb Abbey Pearmain.

Names of plants.—*W. E. W., Broxbourne.*—Cypripedium harrisianum hybrid.——*L. F. B., Woking.*—Billbergia nutans.——*Mrs. R., West Kirby.*—Ornithogalum lacteum.——*J. R. N., Campden.*—Arthropodium cirrhatum.——*Woodman.*—The Bamboos are: 1, Arundinaria japonica; 2, Bambusa angustifolia; 3, too small to identify. The Orchid is Cypripedium vexillare.——*Somerset.*—Cypripedium Sedenii.——*Non, Kirkcudbright.*—Daphne indica.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SPRING WORK ON LAWNS.

THE care and upkeep of lawns frequently cause their owners a certain amount of anxiety, particularly when they have been neglected during winter and spring, for in such cases summer finds last year's failings intensified. A frequent source of annoyance arises from the presence of small bare patches, especially in lawns which have been subjected to hard wear. The man who is fully alive to his responsibilities will take care to renovate the turf on such places as early as possible in autumn; but, unfortunately, the work is sometimes neglected at that period, hence its necessity in spring. Where such work still remains to be done, no time must be lost in procuring good turf to repair the bare patches, for it is much better to make up with turf rather than to sow them with seed. When, however, a large area is bare, it may suit the convenience of the owner to sow seed rather than to lay fresh turf. Sowing, however, may only be done successfully when it is possible to leave the lawn unused for several months. Where new turf is used, on the other hand, the lawn may be used in early spring. An objection arises to bringing turf from a distance to make up deficiencies, for it may be taken from a very different class of ground, and the grasses may not establish very well under new conditions. For this reason it is advisable to procure turf in the neighbourhood whenever possible.

Areas which are to be sown should be prepared at once and levelled over, after being trodden thoroughly, but the seed need not be sown until the first or second week in March; in fact, better results will be obtained by delaying the sowing until that time. While levelling is in progress, care must be taken to tread or ram well any place which appears soft, or a hole will appear there in less than a year. The appearance of small holes or irregularities in lawns ought to be made good at this period, for, although there is no reason why a lawn should be a dead level—and there is a good deal to be said in favour of a lawn with small hills and dales, especially in a hilly country—small inequalities, such as occur by the sinkage of a space of ground 1 yard or 2 yards square, are an eyesore, and ought never to be encouraged. As a rule, the removal of the turf and the inclusion of a barrowful of soil in the hollow is sufficient to raise the ground to its proper height, and there is no occasion to make hard work of the matter.

Where grass is thin, but not actually worn away, the turf may be lightly pricked over with a fork and grass seed inserted. For lawns that are to be subjected to hard wear, however, this is not a very satisfactory process. When it is done, people ought to be kept off for several months, at least. The manuring of lawns is best accomplished during autumn or early winter, but it is not yet too late to apply a light dressing. Well-rotted farmyard manure is more suitable than chemical manures, while a dressing of soil is of value, particularly when a lawn is at all mossy. Mud, taken from lakes or ponds, forms an excellent dressing for lawns, but it is now rather late for applying it. The best time to apply mud is after the water has drained away somewhat, so that it can be spread easily. A depth of from 1 inch to 2 inches may be applied. As soon as it has dried a little, a chain harrow should be passed over it to distribute it evenly and break it up into fine particles. Stirring about once or twice afterwards with a rake will soon cause the grass to grow through. The same remarks apply to soil which has been distributed over a lawn.

Lawns which are at all spongy may be improved by spreading a dressing of fine sand broadcast. This works in among the roots and growth of the grass and forms a firmer surface. An application or two of sand usually results in the suppression of the coarser grasses and the encouragement of the finer kinds. Where sea sand can be obtained, it is the best kind to use. Coarse weeds must be uprooted and the holes filled in with soil. Moss and small weeds may be removed by raking the lawn well with a strong-toothed iron rake. After the raking, soil or sand may be applied with advantage.

Grass on hard-used lawns may be improved by an application of soot or malt-dust in April or May, while most lawns respond satisfactorily to a dressing of bone-dust in early spring. A good brushing with a besom suffices to clear up rubbish which may have collected during winter, or refuse which may have been left behind after a dressing of soil or manure. Rolling is essential to a well-kept lawn, more especially when it is mown with light machines, and advantage should be taken of every heavy rain to roll. Frequent and regular mowing contributes largely to the success of a lawn, for those which are mown

twice one week, then not again for a fortnight, are never so satisfactory as those which are mown regularly, at least once a week. The earlier mowing is commenced the better, for the mowing of the lawn adds an air of tidiness to a garden which cannot be attained otherwise. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 20. — National Chrysanthemum Society's Executive Committee Meeting.

February 22.—Irish Gardeners' Association and Benevolent Society's Meeting.

February 23.—Manchester Horticultural Improvement Society's Meeting.

February 28.—Royal Horticultural Society's Meeting and Exhibition at the Royal Horticultural Hall, Vincent Square, Westminster. Fifth Masters' Memorial Lecture at three o'clock, by Mr. G. F. Scott-Elliot, M.A., B.Sc., F.L.S., on "Recent Work in Seed Selection."

March 2.—Linnean Society Meeting, 8 p.m.

March 4.—Société Française d'Horticulture de Londres Meeting.

The fascination of the Anemone.—Those of our readers who remember the interesting series of articles entitled "The Fascination of the Crocus," which were written specially by Mr. E. A. Bowles for THE GARDEN, will be pleased to know that Mr. Bowles has very kindly promised to write a similar series on the Anemone, the first instalment of which we hope to publish in the course of a week or two.

North of England Horticultural Society.—We are glad to note that this newly-formed horticultural society is starting with good promise for a successful career. A strong council has been formed, with Major J. W. Dent, Ribston Hall, Wetherby, at its head. A number of experts have accepted positions on either plant and floral, fruit and vegetable, or scientific committees. It has been suggested that a large annual show be held in Leeds either in August or September. The Rev. J. Bernard Hall is the secretary, and his address until March 25 is Dalston, Cumberland, after which date it will be Rawdon, Leeds. The secretary will be glad, on receipt of a post-card, to post anyone a copy of the by-laws and additional circulars for distribution to likely supporters.

A Pine disease.—According to a recent issue of the "Kew Bulletin," a disease affecting various species of Pinus was reported from widely-separated districts in England during the years 1903 to 1906. In the early part of 1910 a consignment of diseased shoots of Pinus insignis and P. montana was received from the Eastern forests of Cape Colony. An examination showed that in every case the disease was caused by the fungus Diplodia pinea. The disease is confined to the terminal portion of the shoots, and can be recognised by the yellowing and subsequent shedding of the leaves and the death of the affected shoot. Species of Picea, Abies and Larix appear to be immune from the disease, and experiments prove that it is only possible to infect species of Pinus at a broken or wounded surface. The "Kew Bulletin" further states that the disease has been most commonly met with in the nursery, and it is here that measures should be taken to stop its spread. The removal and destruction of diseased parts should be carefully attended to.

Royal Warrants for seed firms.—A Royal Warrant of Appointment has graciously been granted by King George V. to Messrs. Sutton and Sons of the Royal Seed Establishment, Reading, as Seed Merchants to His Majesty. The following firms have also been favoured with the Royal Warrant: Messrs. William Bull and Sons, King's Road, Chelsea; Messrs. William Wood and Sons, the well-known horticultural sundriesmen of Wood Green; Messrs. James Carter and Co. of Raynes Park; Messrs. Daniels Brothers, Norwich; Messrs. Hogg and Robertson, Limited, Mary Street, Dublin; Messrs. Hugh Dickson, Belfast; and Messrs. Webb and Sons, Wordsley, Stourbridge.

Midland Carnation and Picotee Society.—The twentieth annual report of the above society is now being distributed. The report contains a complete list of awards, also a list of subscribers for the past year. The twenty-first annual exhibition will be held at the Botanic Gardens, Edgbaston, Birmingham, on August 2 and 3, and a schedule of prizes, together with rules for 1911, is issued with last year's report.

Royal Gardeners' Orphan Fund.—It is gratifying to note that this well-established fund continues its helpful work among fatherless and motherless children, for whom the fund is specially designed in their hour of need. Assistance has been given in many pathetic instances during the past year, and the society has done excellent work, particularly among those leaving childhood, about the age of fourteen, who might otherwise have been left unprovided for. It is, however, a matter for deep regret that the fund is not large enough to meet all the necessitous cases that are voted for annually. A full report of the annual meeting held last week appears on another page of this issue. The secretary is Mr. B. Wynne, 35, Surrey Street, Strand, London, W.C.

The Sweet Pea Annual for 1911.—Although for various unavoidable reasons the advent of this popular publication is somewhat later than usual this year, its contents have in no way suffered, and members will find a great deal of interesting matter within its pages. Undoubtedly the feature that will be looked forward to most is the report of the sub-committee appointed to investigate the diseases of Sweet Peas, and particularly that insidious and mysterious malady known popularly as "streak." Plants affected by this were sent in by a number of members, and these were examined, some by Mr. F. J. Chittenden and some by the authorities at Reading College. It will be a disappointment to many to know that no definite result has been arrived at. It is true that in most cases eelworms were attacking the roots of the plants, and the fungus Thielavia basicola was present. But experiments conducted with that end in view failed to prove definitely that either was the actual cause of the trouble, and matters remain much as they were. So far as indications go, it is, in the opinion of Mr. Chittenden, advisable to do all that is possible to rid the soil of eelworms. The usual chatty articles by various members of the society, together with an audit of the flowers staged at the last summer show, report on the trials and on the conference, as well as the society's official catalogue of Sweet Pea names, are included. An excellent portrait of Lady Northcliffe, who is president of the society for the current year, forms the frontispiece; but the other illustrations are scarcely up to the usual high standard. The Annual is sent free to all members of the society, and can be obtained by non-members from the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, post free 2s.

Scottish Horticultural Association.—The opening meeting of session 1911 of the Scottish Horticultural Association was held in the Goold Hall, St. Andrew Square, Edinburgh, on the evening of February 7. There was a very large attendance, presided over by Mr. James Whytock, the retiring president, and the hall was crowded in every part. The principal business of the evening, after the ordinary proceedings, was the delivery of the inaugural address of the new president, Mr. W. H. Massie, of the firm of Messrs. Dicksons and Co., nurserymen and seedsmen, Edinburgh. The address was a most interesting one, and the principal points dealt with a scheme for the advancement of horticulture in Scotland, which Mr. Massie put forward, not, as he remarked, with any wish to thwart the proposed amalgamation of the Royal Caledonian Horticultural Society and the Scottish Horticultural Association, with which it would not interfere. The proposals, briefly stated, were: (1) That a fund should be started to provide a horticultural institution which should accommodate a library, provide a hall for meetings, a reading-room for the members, and various accessories, including offices; (2) that the finances of the association and of the Chrysanthemum exhibition should be adjusted; (3) that facilities be provided for papers given by, and discussions among, the younger members, that prizes should be given to those who had acquitted themselves with distinction, and that examinations be held and certificates of proficiency awarded to those who were successful; and (4) that a benevolent fund for Scottish gardeners and their widows and orphans should be established. Mr. Massie brought forward and supported his proposals with his wonted ability, and the address was very enthusiastically received, Mr. Massie being warmly thanked for it. It was agreed that the proposals advanced in the address should be remitted to the council of the association for consideration and report.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Andromeda and its nomenclature.—Among all the hardy plants there is no more confusion among names than in the genus Andromeda, and it would be well for the interest of all if the names of these were taken from Kew. For instance, one has a plant of Cassandra calyculata, another has a plant of Andromeda calyculata, another of Chamædaphne calyculata, another of Lyonia calyculata, and all are one and the same species. Now to the uneducated in plant-life this is very perplexing. Another instance is Cassiope fastigiata, which is also called Andromeda fastigiata; again, Leucothoe axillaris is Andromeda axillaris; Zenobia speciosa is Andromeda cassinefolia; Pieris mariana is Andromeda mariana, and also Leucothoe mariana and Lyonia mariana. These are only a few instances of the terrible confusion of names which are so troublesome. A person may buy a plant of a name he has not got, and when the plants arrive he finds that he has already got a stock. If nurserymen would adopt the Kew names in their catalogues there would be an improvement all round. The "Kew Hand List" is invaluable, and more should avail themselves of its use.—W. A. COOK, *Leonardslee Gardens.*

The proposed National Daffodil Society.—Since you call for an expression of opinion from your readers on the above subject, I venture, as a great lover of the Daffodil in all its forms, to put forward my views. I think there can be little doubt as to the usefulness of such a society, despite the excellent work that has been, and is being, done by the Royal Horticultural

Society and the various local organisations now in existence. The great impetus given to the cultivation of their respective flowers by the National Rose, Sweet Pea, Carnation and Picotee and other societies proves the value of such organisations; and surely the Daffodil is fully as worthy of exploitation as any of the above delightful flowers. n a sense, more so, for the Daffodil blooms at a season of the year when outdoor hardy flowers are scarce indeed. The more extensively cultivated it is, therefore, the better. A few points that occur to one as to the constitution and objects of such a society are: 1. The affiliation to it of all Daffodil societies at present in existence in the country. 2. The encouragement of local effort in the formation of local societies where such do not at present exist. 3. The committee should consist of the principal people in the Daffodil world, both professional and amateur. 4. Head-quarters in London. 5. The taking over of the classification records now collated by the Royal Horticultural Society and the keeping of this most necessary work up to date. The issue of a schedule and the keeping of it up to date should also form part of the duties to be performed. I firmly believe that such a society has only to be formed to at once enter upon a career of success and usefulness. —A. C. CARNE ROSS, *Brecon.*

A garden of sweet scents.—All lovers of gardens will, I am sure, be grateful to Miss Jekyll for her charming essay, "A Garden of Sweet Scents." It is not only full of valuable information, but also suggestive of a delightful idea. It would be truly pleasant to have one spot in every garden set apart more particularly for perfume—where you could bring your friends, and go alone yourself at times, knowing the sweetness you would find there. My object, however, in writing is not to improve upon, or rather try to improve upon, Miss Jekyll's essay, for that, I think, is not possible, but merely to suggest a few plants other than those mentioned that might be allowed admission to "the garden of sweet scents." The different species and varieties of Philadelphus are well known for their perfume. They may be classed among Miss Jekyll's first division, viz., those that give off their perfume naturally. Of all the Philadelphuses I think microphyllus is the sweetest. There is an indescribably delicate perfume from the flower like a Pine-apple. The flower itself is delicate, fragile and poor—very poor when compared with the splendid introductions of Lemoine—but these latter seem to me to lack the exquisite flavour—for want of a better word—of microphyllus. I know that Mr. Smith of Newry thinks the variety named Mont Blanc the sweetest of all; but comparing both together last year, my verdict was in favour of microphyllus. There is a very sweet-scented shrub now (and has been for several weeks) in bloom in my garden, viz., Lonicera Standishii. The best gardener (I think) in Ireland told me once that he thought it was impossible to beat it in point of sweetness. I have several plants of it, and the only fault I can find is that with me it is a shy flowerer. All my plants are in bush form. Very likely it would flower better against a wall. Moreover, the flowers are not much in evidence, as they generally hide under the leaves. However, with these things against L. Standishii (its shyness in two ways) it is an uncommonly sweet flower, reminding one somewhat of a Freesia. Miss Jekyll speaks of Daphne, and, of course, no one could do without some representatives of this delightful genus. One of the sweetest of the Daphnes, a truly charming plant in growth, colour, flower and scent, is the Garland Flower, D. Cneorum. No one could possibly possess a garden without it.—(Rev.) WILLIAM W. FLEMYNG, *Coolfin, Portlaw, Co. Waterford.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

PARSNIPS.—The main crop of these may be sown whenever the conditions are favourable. Deep cultivation is essential for this crop. Ground trenched last autumn which has been lying rough and exposed to the weather will be now in splendid condition. The surface should be lightly forked over, and when dry enough draw out drills about 18 inches apart and 2 inches deep, then sow the seed. For producing exhibition roots, holes must be made with a crowbar about 14 inches apart and 18 inches between the rows. Fill the holes with fine sandy soil, which must be pressed moderately firm. Sow a pinch of seed in each hole and cover with soil. The seedlings must eventually be thinned, leaving only one plant in the middle of the hole.

Onions.—The success of this crop depends in a great measure on the condition of the ground. Whether the plants are raised under glass or sown in the open, it is necessary to grow them in deeply-dug, well-manured soil. The main crop may be sown as soon as the ground is in workable condition. Choose a fine morning for this work. Before forking over the surface give the break a good sprinkling of wood-ashes and soot; then rake the whole over and sow the seeds in drills 1 foot apart.

Carrots.—Make a sowing of these on a warm border to succeed those which are growing in frames. Towards the end of the month, or early in March, a sowing of early Turnips may be made on a sheltered border.

Potatoes.—Those growing in pits must receive timely attention in regard to ventilation, as the sun now is gaining considerable power, and any neglect in this matter will cause the haulm to become drawn. This will have a detrimental effect on the crop. Earth-up or top-dress plants which are in need of it. Never allow them to suffer for the want of moisture at the roots. Do not use more fire-heat than is necessary to keep out frost.

Mushrooms.—Beds which are showing signs of exhaustion will benefit by an occasional watering with diluted liquid manure. Excessive fire-heat must be guarded against at all times; it is far better to allow the temperature to decline several degrees during cold weather than to overheat the pipes. Water the beds with tepid water when they are in need of it, and damp them with a syringe once daily during fine weather. At this time of the year there is a danger of the atmosphere being kept too moist, unless judgment is used when applying water. Make up other beds as the supply demands. The manure must be well prepared before placing it in a house where Mushrooms are already growing. Much damage may be done by the ammonia which rises from the manure when fresh.

FRUIT GARDEN.

Protection of Fruit Blossoms.—It will be necessary to have some ready means of protecting wall trees when these come into flower, particularly Apricots, Peaches and Plums. For several years now we have relied on fish-netting for this purpose. Two or three thicknesses of this are hung over the trees. Probably this would not be sufficient to keep off very severe frost in some districts. It has the advantage over blinds in that it can be left over the trees by day and night, thus protecting the blossoms from cutting east winds, which often continue for several days when the trees are in flower.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

PEACHES.—When the trees are in flower, pollination can be assisted by lightly brushing over the opened blossoms with a camel-hair brush or rabbit's tail daily. On bright days this may occasionally be dispensed with, and the trees receive a light application with the syringe to distribute the pollen. Care, however, must be taken to use water sparingly, or more harm than good will ensue. Disbudding must be done gradually, removing at first only the growths that are badly placed, *i.e.*, those looking towards the operator and those pointing directly towards the glass. If any of the trees are found to have an abnormal quantity of fruit-buds, it is advisable to thin these out before they develop, as the retention of a large number often results in a poor set of fruit or of a large set that will not properly develop.

Vines.—Early houses will require attention given to tying and stopping, the shoots being stopped at the second or third joint beyond the bunch, bringing the shoots gradually to their positions on the wires. The Black Hamburgh is a very brittle variety to handle in the early stages of its growth, and requires very careful handling, or breakages will occur and cause worry and disappointment. The shoots are liable to snap off at the heel if the least pressure is used, so that the first precaution should be to support the shoot a few inches from the spur, and then bring down the point by easy stages to the desired position. The night temperature should be gradually raised as the days lengthen and the atmosphere kept moist. Watch particularly any corner near the hot-water pipes that may become quickly dry and have it damped regularly, otherwise the conditions favour an attack of red spider.

Pine-apples.—The present is a suitable time to go over the stock of Pines and pot up all those ready for their fruiting pots. Important details to be observed are to have the pots thoroughly clean and well drained, using soil with a base of good friable loam to which has been added some bone-meal and soot. The balls and root masses should be thoroughly soaked before turning them out of the pots, and placed in the larger pots at a depth that will admit of the surface being covered with about 2 inches of the new soil. If the small lower leaves are pulled away, a number of fresh roots will soon push into the new compost. The soil in the pots should be made firm by means of a rammer. The beds for plunging the pots in should have a temperature of about 85°, and may be composed of leaf-mould, tan bark or Cocoanut fibre. Little water will be required for several weeks, damping of the paths and syringing the surface of the beds, with an occasional syringing overhead, being sufficient until the roots have got a firm hold. Suckers from winter fruiters may be removed from the plants as soon as they are considered strong enough and potted up into 6-inch or 7-inch pots, plunging as recommended for fruiting plants. Give water and air sparingly until well rooted.

Melons for Early Crops.—These should now be fit to pot or plant in their fruiting quarters. For first crops it is often advised to use pots; but as a rule the plants do best when planted out. A good, but not a rich, mixture suits the Melon. The plants should be placed on a slight ridge and shaded for a day or two. Very little ventilation will be required for a time, especially if the house is kept moist. The temperature should be about 70° at night, rising to 80° by day.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE ROSE GARDEN.

ROSE JAMES COEY.

THERE is such a scarcity of yellow Roses which possess a vigorous habit and will succeed in any garden that one welcomes this Hybrid Tea variety which Messrs. A. Dickson and Sons introduced in 1909. When I first saw it I noted it down as a deeper-coloured Mme. Hoste, and I think that well describes the Rose. The colour



A NEW HYBRID TEA ROSE: JAMES COEY.

is deep golden yellow, with whitish edges to the petals. In the bud and half-open stage the form is excellent, as may be seen by the accompanying illustration, and if the older flowers lose this beauty of form they help to make amends by their effectiveness on the plant. The erect growth and branching habit render it a first-rate sort for grouping in beds or for massing in large quantities, and all who love these yellow Roses should not fail to plant James Coey. I am delighted to see that Messrs. Dickson are working on the yellow Roses. We want new varieties very badly, varieties that have all the good qualities of Mme. Hoste with Maréchal Niel colouring. Of course, we have Rayon d'Or, and I am expecting great things from this Rose, and look forward with interest to the blooming-time this year, when we shall see how it behaves in our climate, although Dr. Waddell has already flowered it, which should set our minds at rest on that score. P.

ROSES ON STUMPS OF TREES.

IT frequently happens that one has an old fruit tree that is past its best, and yet one does not wish to root it out entirely. There are many reasons for this: it may be a favourite variety, perhaps has a seat round it, or, at any rate, is very useful as a screen and partial shelter in summer. Then the blossoms upon some of these old favourites are showy, even if through age they cannot produce a well-developed crop.

Few conceive what labour is needed to properly grub out such a plant, and it might often be put to great use and beauty by the help of a few judiciously-selected climbers. Among these I know of none better than Clematises and Roses. Near me is an Apple tree, up which a plant of Clematis Jackmanii is climbing, and the combination is pretty from the time of the Apple blossoming up to the ripening of fruit in conjunction with the deep blue flowers of the Clematis. I am aware that several may cavil at such mixtures, but I am bound to say this tree attracts a great deal of attention from passers-by. I should not advise this plan with young fruit trees growing into profit, but many older stumps might be beautified during the coming summer by the help of Clematis, Honeysuckle and, above all, Roses.

At the outset we have ideal ground for the plants to occupy in the most artistic manner. The support, too, is far sounder than we could possibly secure artificially without much expense and labour. It is not too late to plant from the open ground; but one can always procure the most suitable varieties for this purpose from pots, and these, being established in a ball of soil, will afford some pleasure during the first season after planting. Otherwise it is better to cut down rather close and wait for young growth to clamber up the tree.

Now, far too many err in planting without sufficient preparation in these cases. Remember the established tree has possession, and whatever else is placed at its bole is very heavily handicapped. Therefore we need to take away some of the soil to a good depth and replace with really good compost, more especially as the older soil must be exhausted. Nor is it quite enough to do this; it is better to sink a small barrel or tub, minus the bottom, and fill this in with some of the better compost. Unless we do something in this connection, the roots of the tree will soon be robbing the newly planted Roses. A very little help in this way until the Rose can make a start has much to do with future success, and is not much trouble when taking out the old soil. Crushed bones and a fair mixture of manure may be incorporated in the bottom soil, so that there is something for the roots to stay with, for the ground around the bole will not only be poor, but very dry in almost all cases.

It only remains for me to name a few of the Roses most suitable, and any reader can get to work. Félicité Perpétue and Flora are two good whites; Hiawatha, Dorothy Perkins and Reine Olga de Wurtemburg, reds; Robert Craig, Gardenia and Alberic Barbier, yellows; Elisa Robichon, Euphrosyne and Blush Rambler, pinks. Almost all of the wichuraianas will do well, and one of the very best is the original of this growing class, a pretty white form commonly called the type. Bennett's Seedling, rubra, Aimée Vibert, scandens, Ruga, Dundee Rambler and many more will answer the purpose, so long as they are strong growers. But the small, thin-wooded creepers, like most of the wichuraianas, seem the most suitable, and have a more graceful form when hanging in festoons of flower from the branches.

Sometimes a plant can be set in a little away from the tree, and the Rose growths led up to the branches by a strong stake. That is a matter of convenience. All I wished to do was to show how very pretty we might make many of our old tree stumps look.

It is not only fruit tree stumps that can be treated in this way. Often there is a fair-sized plant of some other kind, such as a Laburnum, or else a dead conifer, that might be covered in the same way. Cut away as much of the conifer as will leave a few sound branches 1 foot or so in length from the stem, and plant as before advised. Here again one has a sound support, and the side branches are just what is wanted for the Roses to rest against. In addition to the Roses named and the mention of Clematis and Honeysuckle, there is yet another subject of surpassing beauty that is well adapted for clothing old or dying trees. The plant referred to has the misfortune to bear the name Polygonum baldschuanicum. All through the summer months it produces clusters of whitish flowers, which hang in glorious festoons. A. P.

THE FLOWER GARDEN.

SWEET PEA CHAT.

DOUBLE STANDARDS.—My sympathies are with Mr. Stevenson, who forcibly protests on page 53 (in the excellent Sweet Pea Number of THE GARDEN) against double standards. Although these convey an impression of size to the blooms, they cannot, generally speaking, be claimed to add to their grace and lightness. At the winter convention of the National Sweet Pea Society it was resolved by the meeting that double standards should not be regarded as a fault, and it is more than probable that the best judges will accept this ruling during the coming season; but I take the view that it will be in opposition to their personal judgment. Those who desire to grow double Sweet Peas can have varieties with more than the normal number of beautiful organs; but when examples were exhibited at shows a few years ago they were received with derision and contempt. The double-standard flower will not receive such sweeping condemnation, but it will not yet be accepted as an improvement on the normal Sweet Pea.

UNFIXED STOCKS.—On page 55 of the issue to which attention is drawn, in the previous paragraph Mr. Drayson makes out a strong case for the distribution of stocks which are known to be unfixed. There is much in what this able writer and keen enthusiast says, but the small grower like myself, who can only afford to have half-a-dozen plants of each variety, is not always a sound philosopher, and when he finds that all his six are "wrong 'uns," he is likely to call down unpleasant blessings upon the head of the man who sold him the seed and did not tell him at the time that it would not come true to the entrancing description on the packet. Mr. Drayson will say that the true ones were thrown away or passed on to a friend, and this may, perhaps, be right, but it does not afford much consolation to the poor man who has the failures. The "rogues" in certain varieties are invariably good, one is ready to admit; but why should we not have these under the names by which they have been christened? Please give me all fixed stocks if they can be found in this unreliable world.

BOXES FOR SEEDS.—We are a conservative people. A few years ago the man who suggested that Sweet Peas should be sown in pots in the autumn or the spring would have been howled down; now it is the common system, because it has been proved to give results superior to those from seeds sown out of doors. I am now anxious to ascertain whether pots are better than boxes. During the past three years I have used both, and there is no gainsaying the fact that the plants in the boxes were stronger and healthier than those in the pots; moreover, they moved easier into the open quarters. The pots employed were "thirty-twos," so that the plants were not cramped for depth at the root, as occurs when "sixties" are used; the boxes were 10 inches deep. Provision was made for drainage in both instances, and the soil was taken from the same heap. The seeding was done with equal care, and the treatment was identical throughout. Will my fellow-readers of THE GARDEN give their experiences and explain why the boxes should in my own cases have given the better results?

COMPOST FOR SEEDS.—The ideal soil mixture for Sweet Peas sown either in pots or boxes is probably three-parts of fibrous loam and one-part of sweet refuse manure, with an addition of one-tenth of a part of sharp sand. Unfortunately, there are many growers who are unable to provide this, and as they have had it so persistently dinned into their ears, they fear that success cannot be had without it. Happily, this is not strictly correct. The ordinary soil of the garden can be utilised, and if refuse manure or leaf-mould (the latter perfectly sweet) with sand are added, careful management will ensure success. The trouble lies principally in the watering; but common-sense should keep a man somewhere near the mark.

A. B. ESSEX.

A CHARMING MOSSY SAXIFRAGE.

(SAXIFRAGA RHEI SUPERBA.)

IN the Mossy Saxifrages we have many exquisite plants. In the depth of winter their mounds of verdure are of the highest order of beauty, while in spring their masses of dainty little flowers of varying shades of white, pink or red yield us abounding pleasure and cause us to regret their inevitable loss as the season advances. Generally of true perennial character, easily grown, where not exposed to continued drought or to a superfluity of sunshine, such plants are bound to grow in the favour of all who cultivate alpine flowers or who wish to utilise the dwarfer plants in their gardens.

Doubtless a good many can well recollect when the appearance of Saxifraga Rhei first delighted us with its pretty pinkish flowers, passing off to almost white. A native of Transylvania, it provided a distinct departure from any other Saxifrage of its class then in cultivation, and it at once came into the favour of alpine-lovers. Soon afterwards the fine form depicted in the accompanying photograph, and called S. Rhei superba, was brought to notice. More robust in its growth, it has larger and deeper-coloured flowers, and is a considerable improvement on its predecessor. Although its popularity is being fast assailed by the other varieties of the Mossy Saxifrage with red flowers, now threatening to appear so rapidly as to surfeit us with their numbers, it is hardly likely that S. Rhei superba will be superseded by these new forms. Like S. Rhei itself, it is classed by botanists as a variety of S. muscoides. It is easily grown in any soil not too dry or too much exposed to strong sunshine.

S. ARNOTT.

COLOURED PLATE.

PLATE 1419.

DOUBLE ZINNIAS.

AMONG those annuals classed by seedsmen as half-hardy, the Zinnia is one that appeals to many lovers of unusual flowers; yet their cultivation is not undertaken nearly so extensively as the merits of the flowers demand. At one time only single and semi-double varieties were obtainable, but, happily, some superb double forms have been secured, and, as will be seen by the accompanying coloured plate, these are handsome enough and sufficiently varied in colour to justify their inclusion in the best gardens in the country. Seed sown under glass towards the end of March or early in April, and the seedlings subsequently given similar treatment to that accorded the annual Asters, will provide us with sturdy plants for the open garden by the first week in June; it is not safe to put them out before that date, as cold winds have a disastrous effect on the young plant. A situation sheltered from very strong winds should be chosen, and if in full sun so much the better, as Zinnias revel in bright sunshine. Our coloured plate, which has been prepared from a photograph taken in colours direct from Nature, represents a bowl of double Zinnias gathered from Messrs. Sutton and Sons' trial grounds at Reading.



ONE OF THE MOSSY SAXIFRAGES: S. RHEI SUPERBA.

THE KITCHEN GARDEN

FORCED VEGETABLES FOR A SPRING SUPPLY.

AT this season of the year, those who require vegetables in quantity and of specially good quality may with advantage get a much earlier supply with even limited means at command. In the Northern part of the country some forty years ago vegetables were forced in quantity. For this work only hand-glasses and frames were used, and the results were really excellent. Other materials at command were an ample supply of stable manure and an almost unlimited quantity of fresh tree leaves every autumn. Indeed, we could not afford even glass for the Potatoes after they were well above the ground. These were covered with thatched hurdles when the weather was cold, and at night, in addition, we used dry Bracken largely. Turf pits were then much in vogue, and answered well, as, when the Potatoes were lifted, the pits were used for French Beans and other things. It is surprising what can be done with leaves and warm litter when specially prepared for the work. The material should be placed in bulk, and turned over several times before using to get it sweetened and free from rank steam. It is astonishing what a long time this material gives a gentle heat, and it is an easy matter to get a good body of leaves together for the work

Potatoes.—A simple method of growing early Potatoes is to place a large body of fresh leaves in a

warm corner, but fully open to light and sun, a depth of from 3 feet to 4 feet, well trodden down as each layer of leaves is added, and the outside of the bed should be made of litter. This will keep the beds in shape, and the heat also will be better retained. The beds are covered with light, good loam and burnt refuse, to which some bone-meal is added, the soil being from 9 inches to 12 inches deep. The sets are prepared in boxes and planted when ready. From this date the surface of the beds are covered with dry Bracken or litter. Later on thatched hurdles are used, these being placed on rails or inverted flower-pots for support. Grown thus, good dishes are to be had in quantity by the end of April and early in May.

Beans.—When the Potatoes are cleared, the beds come in admirably for French Beans, and there is a little warmth still in the bed to assist root growth; but I would, to save time, advise raising the Beans by sowing in pots in frames three or four weeks in advance of planting. This done, there will be a great gain of time, and this crop will be ready in May, at a time when French Beans are most valuable. Of course, they will require protection at night. An early variety should be grown, such as Sutton's Reliance or Wythes' Early Gem; these mature very rapidly. After the Bean crop the beds are still useful. I have grown Aubergines and Capsicums as a summer crop with advantage, raising the plants some little time in advance of planting out, and they do wonderfully well in such a position; but I should add that, when these crops are cleared, the bed should be removed in the late autumn or early winter, as it has done its work. If the Aubergines or Capsicums are not liked, when the Bean crop is over the beds are excellent for Custard Marrows or the larger varieties, or Tomatoes.

Carrots.—These may be grown with advantage on warm beds or in frames. Of course, the latter give less trouble; but many of the early crops now sent to market are grown under glass, and so much depends upon the start, as a little warmth at the roots causes quick germination. It is most important to sow this crop thinly, as every seed germinates, and the plant, under glass or forced, is much weaker when it has not room to develop. When sown under glass, I would advise sowing in February. There is no gain whatever in sowing too early, as the plants require light to get good results. For this work, such varieties as Early Nantes, the Paris Market and Inimitable Forcing are the best.

Turnips.—These require much the same treatment as the Carrot, but less warmth in every way. For instance, too much warmth causes the plants to bolt instead of bulb, and after the rough leaf is formed they require much more ventilation. Roots may be had in six weeks from the time of sowing. Many good cultivators grow small salad crops, such as dwarf Radishes, which are cleared before the Turnips or Carrots require the room. These are sown at the same time as the Turnips. There are some splendid forcing Turnips, such as Sutton's White Gem. This is a very rapid grower, not large, but of excellent quality. Carter's Early Long Forcing is also specially good for frames or warm borders, and Little Marvel is very good. All these forcing kinds have a small top and bulb quickly.

Beetroot and Salads.—I have referred to salads, and I do not know of any better way to raise them than by the warm-bed system; and, of course, where leaves are not available, warm litter is the material employed. Take Beetroot. How often the winter supply becomes exhausted by, say, April or May; but by sowing a small quantity under glass of such early kinds as Crimson Ball or Globe there will be good roots late in spring.

Asparagus in the spring can often be had some time before the usual time if the old beds have a good quantity of prepared leaves and litter placed between the beds with some warm, short stable litter on the surface; and if only one bed is forced in this way it is worth doing, as the "grass" is obtained much earlier. Over the warm litter on the surface place some long strawy stuff to throw off cold rains.

Cauliflowers.—Small choice table Cauliflowers of First Crop, Forcing, Forerunner or similar kinds, sown under glass and planted out in frames or beds, are invaluable in the late spring. I have planted these on the beds after early Potatoes, and, owing to their size, they occupy little room and soon turn in and make a splendid second-course vegetable. They also do well as pot plants or in boxes.

Peas.—Though these can scarcely be termed an early spring crop, much may now be done to get them at such a time. There are some splendid varieties for the purpose. For many years I grew this vegetable in pots and boxes for an early May supply; but now such splendid forcers as Hundredfold, Little Marvel, Pioneer, Eight Weeks and those of similar growth are all admirably adapted for forcing in frames. I have sown in pots early in the year and planted out in rows 15 inches apart only, and with a few twigs to keep them up they do well only a few inches from the glass when in flower.

Broad Beans.—Few plants force better than the Broad Bean. These may be sown in pots, boxes, or in frames and planted out, care being taken to get good roots to the plants, and to plant out in fairly rich fibrous soil. They soon flower and pod. For this purpose the dwarf forms are the best, such as Royal Dwarf Cluster. Beck's Gem is an old but good variety. This is often grown under the name of Green Fan. The Early Longpods also force well.

G. WYTHES.



A TYPICAL SCENE IN THE REV. E. ARKWRIGHT'S GARDEN.

AN INTERESTING GARDEN.

TELEMLY.

A MEMORY which will always remain with me, and which will always call up the happiest associations, is that which records on the pages of my mind the two morning visits I paid at the end of last November to Télemly, the beautiful terraced home of the Rev. Edwyn Arkwright, high up on the wooded Mustapha hill which overlooks the busy town and harbour of Algiers.

Inside the house and outside it is essentially the home of a gardener, and as is almost always the case when this is so, the most interesting thing in the garden was the gardener himself. You only see a big, straggling, untidy-looking branch, which you may possibly recognise as a bit of a Cæsalpinia japonica; but when you are told how it was planted round a school playground to prevent the lads climbing a tempting fence, and in doing so tearing very often and very badly the lower half of their clothes, and how it has since been nicknamed "The Mother's on Your Side," or how on another occasion, in the full luxuriance of its summer growth, it took the gardener's sister prisoner and held her faster and faster the more she struggled, so that the greater part of the establishment had to come to her rescue, the interest deepens and the plant becomes a friend.

Or, again, you come across various colonies of the beautiful white Iris stylosa (or unguicularis), and then the cicerone tells you how, twenty years ago, when it was really wild land and bush all round the town, he saw on one of his rides a pure white stylosa, and how, fortunately for us all, he did not simply gather the flower and pass on, but took great pains to dig it up and carry it back to his garden; for this was the one plant from which all others have come, and he was its discoverer. Or one admires the huge fiery cross of Bougainvillea braziliensis on the eastern end of the house with its marvellous and indescribable shade of brilliant brick red, and then the story is told of how the difficulties of a dry season were overcome by sinking bottles or pipes in the ground and watering the baby new-comer through these. It was a bit of good luck, as far as I was concerned, to see this in its glory at the end of November. The long,

dry summer and autumn had forced it prematurely into bloom, and done me a good turn, just as it had already done the owners of the vineyards, by giving them a bumper vintage in the very year when of all others they could best benefit from it. I have said enough to show how we talked as we flitted like bees from plant to plant and flower to flower. There was always something to be said—something about its history; something about its cultivation; something about its uses; something about its beauty and characteristics—and the Genius of the Garden knew all, and spoke of it all, and his visitors gathered the honey.

It was the wrong time of the year to expect to see a great wealth of flowers, but there were several bits of brightness that claimed attention. One was a plant of Holmskioldia sanguinea. Mr. Arkwright said he cut it down to within 3 feet of the ground every May, and when he returned in early autumn he invariably found it had made shoots 8 feet to 10 feet long, clothed for the greater part of their length with rich terra-cotta-coloured bracts, which in the mild North African climate persist long after the flowers themselves have faded. Another was a plant of Linum trigynum, or, to give it its more recent title, Reinwardtia trigynum, an old plant often, I believe, seen in our greenhouses when such shrubby plants were the fashion, but which is now seldom met with. It was a glorious bit of rich golden yellow, and I can well imagine it having as its local name Gul Ashorfee ("Gul," gold; and "Ashorfee," an East Indian gold coin valued at about £2). Here were some bright vermilion-looking berries almost as big as a small Tangerine Orange, borne on bare prickly stems 1½ feet to 2 feet high. The plant was a Solanum, either aculiatissimum or ferox.

In other parts there were huge bushes of Streptosolen Jamesonii; of Tithonia tagetiflora, with its rich orange Sunflower-looking blooms; and of Montagnœa (Montanoa) elegans (called in Dr. Gubb's book M. heracleifolium), a grand decorative plant with large panicles of what looked very like big single white Daisies, alike useful for the garden and the house. Clothing the garden side of the house there was an immense Bignonia Cherere, with many bits of rich orange red bloom popping out among the well-clothed branches. Last summer quite half of it suddenly died. Why? The local experts could not say, but it was suggested that it was a sunstroke.

I was very interested in a small collection of Gourds, and one was able to see how "Loopha" sponges and Calabash pipes were made. Then the fruits appealed to one, and I and my friend took home to taste some Plaquemines (Diospyros costata), some Custard Apples (Anona Cherimolia) and some long green fruits which I can only describe as a long green Pine cone made of Pineapple (Monstera deliciosa). This last is a curious creature altogether. It likes to live on decayed wood, and its long, tentacle-like roots go all over the garden to try and find some. When they do, up come the big, perforated, Arum-like leaves and a naked yellowish spadix, which is the forerunner of the delicious fruit which I have just described.

The two little photographs reproduced here give two peeps on the upper terrace, one of a fine clump of Cyperus Papyrus (or Papyrus antiquorum), the plant which in distant times used to be made into what we now call books; the other a grand mass of Strelitzia augusta.

What was to come in the way of plant beauty when the real flower season arrived I must leave to my readers' imagination. Fair-sized trees of the lovely ethereal Jacaranda mimosæfolia, the pagoda-flowered Sophora secundiflora, and a slender shrub which looked like an ordinary Broom, but which was the lovely white, tender Genista Retama (monosperma), later on to be, as Mr. Arkwright said, a "fountain of white," are three things taken at haphazard from the multitudinous array which in due season will "give proudness" (as my Moorish interpreter Abitbol used to say so very expressively) to the garden and gladden the heart of its inventive owner and his sister, who, alas! can no longer enjoy her own special little patch of collected wild flowers as she used to do, but who still takes the deepest interest in all that concerns Télemly. It is a wonderful garden and more than repaid me for the time occupied in visiting it.

JOSEPH JACOB.



A FINE STRELITZIA IN THE GARDEN AT TELEMLY.

THE FRUIT GARDEN.

FRUIT TREES FOR SMALL GARDENS.

(*Continued from page* 46.)

BUSH FRUIT TREES.

I HAVE advocated the planting of bush or pyramid trees of Apples, Pears and Plums by the side of garden walks. But with bush fruit trees a better plan is to plant them in rows across a quarter of the garden by themselves, so that they can be covered with netting when the fruit is ripe, and also in winter to prevent sparrows and finches from destroying the flower-buds of Gooseberries and Currants especially.

Gooseberries.—In selecting Gooseberry trees to plant, be careful to choose only those with a clear stem for at least a foot above the ground. If the branches are too near the soil, the fruit is damaged by being smudged over with earth in rainy weather. In planting do not bury the roots too deep. They should not be more than 5 inches below the surface. Make the hole large enough to enable you to spread out the roots without cramping them. Plant in dry weather, if possible, and tread the soil firmly over the roots. Gooseberry trees should be planted 4½ feet apart. Red varieties: Crown Bob, Dan's Mistake, Speedwell and Whinham's Industry. White varieties: Lady Leicester, Whitesmith and Careless. Green varieties: Ocean, Plunder and Admiration. Yellow varieties: Langley Beauty, Keepsake, Gunner and Leveller.

Red Currants.—The remarks made with reference to planting the Gooseberry trees are equally applicable to the Red and Black Currant trees, only that the Currants should be planted 5½ feet apart. Varieties: One of the best Red Currants is the old Scotch Red; the bunches are rather short, but the berries are large and they ripen early. New Dutch Red is another excellent sort. It is most prolific; the bunches are long and the fruit of a rich dark colour. La Versaillaise.—The bunches of this variety are very long and handsome, but the shoots are rather brittle. It makes a very handsome standard tree, and is well suited for training to a wall or fence.

White Currants.—White Dutch and White Transparent are the two best to grow.

Black Currants.—The best of these is undoubtedly the Boskoop Giant. It is very strong-growing and prolific. The berries are as large as small Grapes.

Both Gooseberries and Red and White Currants succeed very well when grown as standards in the open ground, and specimens grown in this way have an attractive and handsome appearance. The fruit is also easy to gather and to protect with netting.

Gooseberries and Red and White Currants may also be successfully and usefully grown as cordons on walls, fences or on wire trellis. The quality and flavour of the fruit are improved when the trees

are grown in this way, as they are exposed to a better circulation of air and a greater amount of sunshine. Another advantage this system of training possesses is that by planting either Gooseberries or Currant trees in this way against either fences or walls with a northern aspect, the supply is greatly extended often well into October, and the trees succeed well when exposed to these aspects. These trees may be bought, ready trained, of any fruit tree nurseryman at little more than the price of bushes. The most useful Gooseberry to grow in this way for late work is the Warrington.

The Raspberry.—The Raspberry grows to the greatest perfection in a deep, rather heavy loam in a cool position. Many are often at a loss to know what to grow in a corner of their garden on which the sun scarcely ever shines. Let me advise them to plant Raspberries in such a spot, and they will not regret doing so, provided the ground is well prepared as advised at the commencement of these papers. After planting cut the canes down to the ground. This will induce a stronger growth of young canes to start from the rootstock, from which you may expect a fair crop the following season. The Raspberry is a surface-rooting plant, and therefore the grower must be careful never to dig the ground deeply over the roots, but simply hoe and rake to keep clear of weeds, and surface dress every autumn with a coating of rich rotten manure laid on as far as the roots extend, 4 inches deep. Because the Raspberry succeeds so well in the shade, no one must run away with the idea that it will not also succeed in the open sunshine. It will succeed anywhere providing the soil is good and well prepared, but it will do no good on poor, hot soil.

The best red variety is Superlative, and the best yellow variety is the Guinea. Rows should be 4 feet apart and 2½ feet between plant and plant in the row.

The Strawberry.—This may be planted any time from now to the end of March. (I am taking for granted that the land before planting has been properly prepared as advised.) The plants should be placed in rows 18 inches apart and 15 inches between plant and plant in the row. The plants are usually small when received from the nursery, and I strongly advise that three plants be placed together and counted as one, thus: *** Far heavier crops are obtained in this way than by putting in single plants over the three years the crop remains in profit. The three best varieties are Royal Sovereign, early; The Cropper (Laxton's, mid-season); and Givon's Late Prolific, late). The culture to be adopted should be on the same lines as that directed for the Raspberry, namely, not to dig deeply among the roots, but to use the hoe frequently during summer to keep down weeds, and in winter to give a surface dressing of rich, well-rotted manure over the roots 3 inches deep. The crop of Strawberries remains in good profit for three years only.

The Loganberry.—This useful fruit has come to stay. It is a cross between the Raspberry and the Blackberry. In growth and appearance of fruit it represents the latter more than the former, it partakes of the sharpness of the flavour of the Raspberry, but is not so sweet. It should be trained in the same way as the Raspberry, but the rows should be 1 foot wider, the plants in the row planted also 1 foot wider apart. The stakes or wire trellis on which to train the canes should be 7 feet high. The way to prune is to cut down to the ground the old shoots which have borne the fruit as soon as the fruit has been gathered, in order to give more room for the young canes of the current year's growth to develop, as it is these shoots which will bear next year's crop. This useful berry plant will succeed admirably in almost any position, and bears enormous crops, with little more trouble in looking after it than the common Blackberry.

OWEN THOMAS, V.M.H.

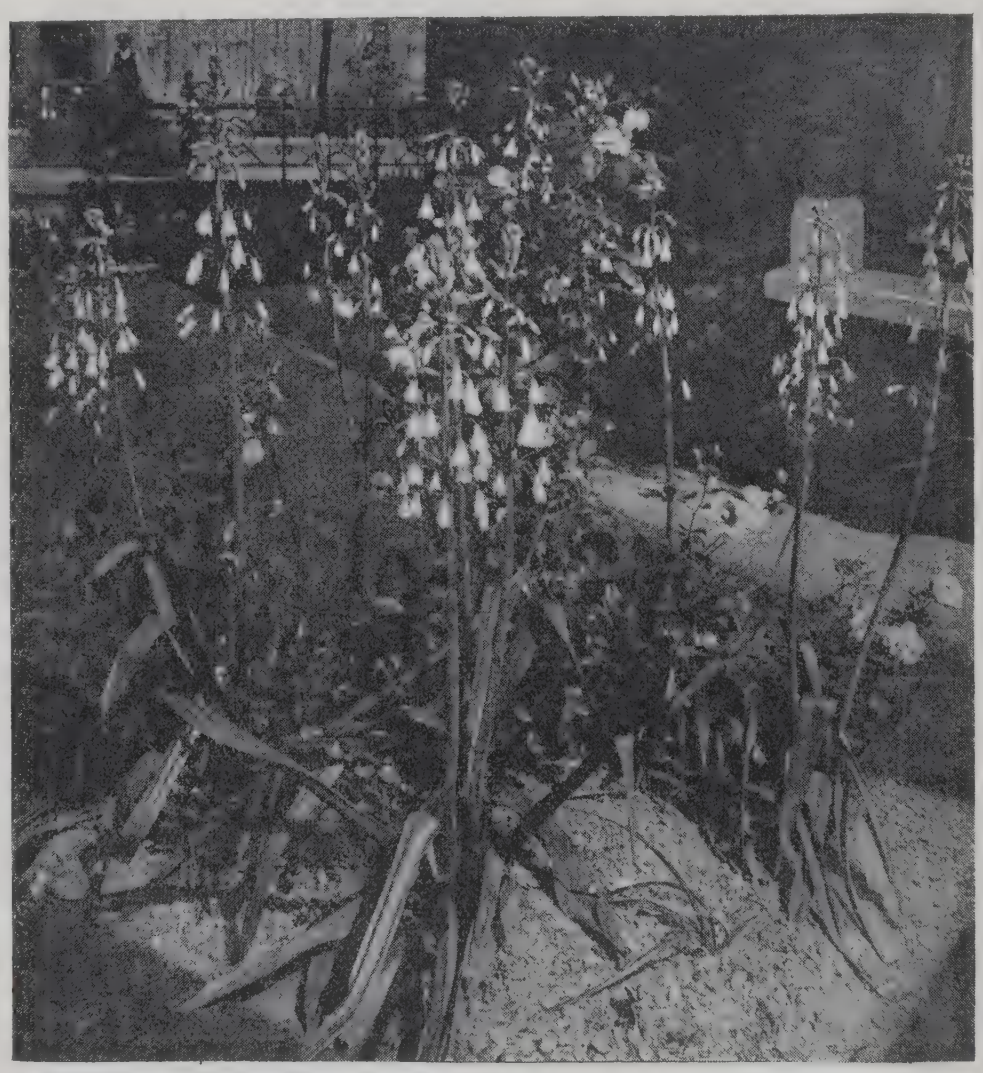
(To be continued.)

THE TOWN GARDEN.

GARDEN LILIES.—That there are Lilies and Lilies, some good for the garden and some that are not, no one having knowledge of the subject will attempt to deny. That some are of the easiest culture and others apparently of a more fastidious nature need surprise no one when it is remembered how vast and comprehensive the genus Lilium really is. The apparent fastidiousness of many kinds may, however, be due to a variety of causes, over some of which the cultivator has no control. The wonderful Hill Lily of Japan (Lilium auratum), perhaps better known as the Golden-rayed Lily of Japan, is a conspicuous case in point. Every year it is sold and planted in its thousands, and probably not flowered in its hundreds, its wholesale failure being due absolutely and entirely to a monstrous death-dealing piece of vandalism inflicted upon it in Japan prior to the bulbs being shipped to this country. This consists of denuding the bulbs of all their roots, young and old; hence what we receive is the carcase merely, with virtually all the vital organs removed, treatment that is too bad for such a noble plant. In other circumstances this beautiful Lily would be one of the most popular; indeed, it remains so yet, despite the failures of the past, though I cannot recommend it among those which are permanently good under ordinary cultivation.

WHAT KINDS TO GROW.—Happily, all Lilies have not been so maltreated as the one to which I have referred, so that a few representatives of this great genus may still find a place in most gardens. The most chaste of all, without doubt, is the white Madonna Lily (Lilium candidum), and though I hardly recommend for present planting a species which should have been planted months ago—in August or September, to be definite—I note that its bulbs are still on view in the shops. Planted now, no flowers could be expected this year, though the bulbs would be established before another season came round. Other good kinds are L. testaceum (the Nankeen Lily) and L. chalcedonicum (the Scarlet Turk's-cap), a species well suited for rather heavy soils, and whose wax-like petals and brilliant colours appeal to all. Then there are the Orange Lily (L. croceum) and L. umbellatum, the latter in many shades of colour, with sturdy habit and erect flowers of orange and brown. These last-named are distinctly robust, good for the purpose we have in view and, what is still more to the point, reliably, as well as perennially, good for the ordinary soils common to town and suburban gardens. Then, for those having a moist or quite cool spot in their gardens where Ferns are wont to do well, the Panther Lily (L. pardalinum) is to be recommended, this particular kind being all the better if peat and leaf-soil are added freely to the staple.

IN PLANTING it is well to arrange half-a-dozen bulbs over an area 18 inches across, or even more than this, so that a goodly group will in time result. The bulbs of the majority of those recommended are so cheap that there should be no difficulty in doing this, and thus making the border the more beautiful. The best way to plant is to dig up the soil to a depth of 18 inches, add freely decayed stable manure to all save the Madonna kind, and so arrange matters that the bulbs are about 5 inches below the ground when the work is completed. The Madonna Lily prefers a fairly good sandy soil without manure, while its bulbs should also be set much nearer to the surface.



A BED OF HYACINTHUS (GALTONIA) CANDICANS IN A SUBURBAN GARDEN.

HYACINTHUS (GALTONIA) CANDICANS.—The illustration accompanying these notes shows a group of plants growing in a suburban garden, and possesses a two-fold value, inasmuch as the bulbs which gave so good a flowering were planted quite late in March, after the Roses—with which plants it will be seen they are associated—had been pruned. Generally speaking, bulbous plants suffer if long kept out of the soil, while here we have an instance of a good white-flowered plant playing its part well and suffering in nowise from the late planting. Object-lessons of this sort possess a value of their own, and should not be lost sight of. S. N. N.

GARDENING FOR BEGINNERS.

POTTING HIPPEASTRUMS OR AMARYLLIS.

THE Hippeastrum is a bulbous plant that has long been known in gardens as Amaryllis, but is now becoming more generally classed under the former name. Other names by which the Hippeastrums are known are Barbados Lily, Mexican Lily and Knight's Star Lily. It is interesting to note that they were first introduced into this country in 1677.

Most of the gorgeous-flowered varieties appear to revel in the conditions that prevail in a warm greenhouse. It has been the common practice in many gardens absolutely to dry off the plants during the resting period. This method of dealing with the Hippeastrum is now questioned; for this subject neither requires nor likes to be treated in this manner. As a matter of fact, during the resting period, that is from, say, October till March or rather earlier, it requires just sufficient water to keep the bulbs plump and ready to resume root-action when the growing season again comes round. The present is an excellent period to commence operations for another year.

This subject is not by any means fastidious as to compost, which should consist of two parts of good, fairly heavy, turfy loam, one part of coarse silver sand or clean road grit, and to every peck of soil add a double handful of crushed bones. Let these ingredients be well mixed together before the compost is used, and sufficient plant food will be embodied therein to keep the plants in health for two or three years.

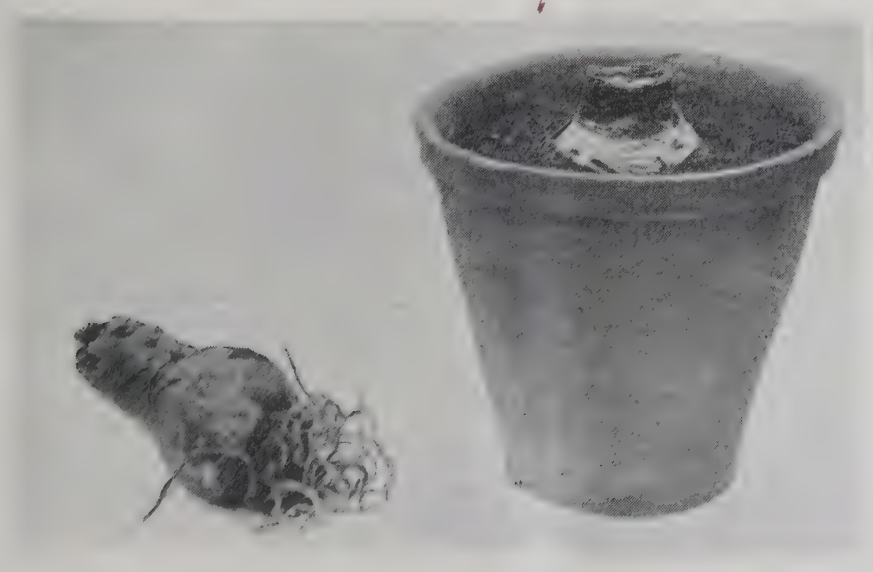
Fig. 1 illustrates the method of potting bulbs of the Hippeastrum. The bulb on the left shows the condition in which they are usually received from the nurseryman or florist, and it gives a fair indication of its possibilities. Any beginner having a few plants of this subject that have not been repotted for several years, and that begin to show signs of deterioration in consequence, should repot them at the present time. When potting old specimens, first shake away most of the old soil, taking care not to damage the roots in the process. Subsequently fill in the new soil with every care for the roots, working it in so that no crevices are left. Bulbs that are purchased at this season must be potted up in a rather different manner. Use scrupulously clean pots and crocks. Pots 6 inches in diameter answer very well, especially for the smaller bulbs; but those 7 inches or 8 inches in diameter are better. As the bulbs are to remain in the same pots for two or three years, special attention should be devoted to the drainage. One good fairly flat piece of potsherd should be placed over the hole in the bottom of each pot, and a layer or two of smaller pieces arranged in even fashion over this. To prevent the compost from working down into the crocks, cover the latter with a few pieces of rough turfy loam. Fill in the prepared compost and then adjust the bulb in position. This is done by taking out from the centre of the pot of soil a sufficient quantity of the compost to embed the bulb one-half to two-thirds of its depth. The soil is made firm, and when the potting is completed the potted bulb should resemble that shown on the right of Fig. 1. One good watering after potting will suffice until the bloom-spikes are well started into growth, after which watering, with occasional weak applications of liquid manure, must not be neglected. It is well to point out at this juncture that the flower-spikes evolve before the foliage, and as far as appearance is concerned this is a disadvantage.



2.—METHOD OF PLUNGING NEWLY-POTTED BULBS.

Many successful growers make a practice of plunging the pots after the potting is done, in order to start their plants into growth; and for this reason I have portrayed in Fig. 2 how this may be carried into effect. When the pots are plunged in Cocoanut fibre refuse in a warm greenhouse and the soil and surroundings maintained in a fairly moist (not overmoist) condition, root-action is promoted and growth soon becomes vigorous. In such circumstances watering must be done more frequently. A gentle hot-bed of leaves or tan may be made up and utilised for the same purpose most successfully.

Opinions regarding the temperature of the glass structure are curiously diverse. There is not the slightest doubt that the tendency in the past has been to give plants of this subject conditions that have been unnecessarily warm. The first essentials in successful culture are undoubtedly light and a position near the glass. All too frequently they are not accorded such conditions, in consequence of which fact the plants start their career at a disadvantage. Generally speaking, the temperature from February to September should be from about 65° to 75°, and from October to January 50° to 55°. During the latter months—the resting period—the well-being of the plants may be assured by standing the pots in a heated pit-frame where the temperature is not allowed to fall below 45°. The frost will damage, if not entirely destroy, both flower-spikes and bulbs should they be exposed to its influence. When full growth has been attained less water will be needed by the plants. Gradually withhold water by giving this at longer intervals, so that as the foliage gradually fails it may die off in a perfectly natural manner.



1.—HIPPEASTRUM BULB, BEFORE AND AFTER POTTING.

Would-be growers who are prepared to take up the culture of these plants should pot up a series of small batches of bulbs, so that they may have plants in succession to flower over a somewhat lengthened period. The plants become far more interesting when this simple rule is observed. The Hippeastrum is increased by offsets, treated in much the same way as matured bulbs. These offsets should be removed with care from old bulbs when the latter are being repotted. Five of these offsets may be grown on and developed in a 5-inch pot; this is an easy means of increasing these plants. This subject may also be increased by seeds, sowing these one-sixteenth of an inch deep in carefully-prepared sandy loam in March in a temperature of from 65° to 70°. The resulting seedlings should be potted up individually in 2-inch pots, maintaining the soil in moderately moist condition all the year round. Seedlings should flower in three years. D. B. CRANE.

THE FAILURE OF ROSE CUTTINGS.

MANY Rose cuttings fail, not through any neglect at the time of their insertion, but through lack of attention from time to time during the winter months. Experienced cultivators are careful to place the lower end of the stem of the cutting on a firm base and to surround it with a small quantity of sharp sand. This is all done to induce the buried end of the stem to form a callus first and then roots. Now, we all know that frost binds the earth in an iron grip, as it were, but we do not all realise that things inserted in the ground are loosened more or less when the thaw comes. It is true, however, that such is the case, and so our Rose cuttings are lifted from their firm base and left practically suspended in the soil. I daresay many readers of THE GARDEN have noticed how loose certain cuttings appear in the soil after the frost has gone. If such cuttings are left in this condition they will soon commence to decay, even though they have callused nicely. Directly the frost has quite gone out of the soil—not before—the cultivator must gently, but firmly, with the heel of the boot, press down the soil again around the rows of cuttings. It is not essential that the surface soil be quite firm, but vital to success that it be so at the base of the cutting. SHAMROCK.

HOW TO PLANT HORSE-RADISH.

USUALLY the Horse-radish plants are grown in some corner of the garden which has never been

occupied previously by a really well-cultivated crop of vegetables of any kind. The soil is often only surface-dug and the roots are planted in rows rather closely together, with the result that the whole of the space soon becomes one mass of stems and leaves of Horse-radish and weeds. Only poor forked roots are grown in the way described. The better plan is to select a small plot in an open quarter of the garden and to deeply trench the soil, well breaking up all rough lumps, and at the same time burying a good quantity of well-rotted manure below the point where the roots are to be planted. Select strong roots with plump crowns, each root being about 9 inches long. Where the soil is of a heavy, clayey nature, the crowns should only be slightly buried; but where a sandy or light soil obtains, bury the crowns 5 inches or 6 inches deep. The roots must be put in 15 inches apart, and the rows should be 2 feet asunder. Keep the ground clean during the summer months, and when the crowns are free from the leaves in the autumn lift the whole crop and store the roots in sand. In the meantime another plot may be prepared for the next year's crop, and the one recently occupied by Horse-radish also prepared for another kind of vegetable.

SHAMROCK.

THE GREENHOUSE.

BALSAMS FOR THE GREENHOUSE.

THE best strains of the annual Balsam bear lovely double flowers similar in shape to those of the Camellia. The plants are not very difficult to grow if certain points connected with their culture are duly attended to, and these points I will refer to in the following notes.

Sowing the Seeds.—For greenhouse culture the plants must be raised fairly early in the year. Make two sowings at least, the first in February and the second one early in April, and thus secure a long succession of flowers. Three-parts fill a pot or pan with a light, rich compost, drop the seeds half an inch apart on the surface of the soil, and then cover them nearly the same depth with some of the finer portions of the compost. The seeds of Balsams are large, and must be buried fairly deep to ensure germination. If a hot-bed is available, plunge the vessel containing the seeds in it. Failing a hot-bed, place the pot or pan in a warm position in the greenhouse.

Treatment of the Seedlings.—These must be induced to make a free growth. Any stunting of growth means the premature formation of flower-buds, and no amount of care afterwards will undo the evil already done. Prepare small pots—those 2½ inches across—by placing one crock in each and then a pinch of half-rotted manure, finally filling up with a rich compost similar to that used for the seeds. The seedlings must be transplanted singly in the small pots when they have produced two or three rough leaves. Do not press down the soil much around the roots, and, if possible, plunge the pots to half their depth in a warm bed. The bottom-heat will induce roots to grow very freely. Repot the young plants before the soil becomes overcrowded with roots, as a pot-bound plant will show flower-buds quickly, and before the buds appear a good specimen plant should be built up.

The Final Potting.—This should take place just before the plants get pot-bound, and 5-inch pots may be used. Of course, they may be flowered in the latter-sized pots, but early feeding would be necessary. Very fine plants indeed may be grown in 7-inch pots, also in 6-inch ones. The compost must contain cow-manure, partially dried and passed through a half-inch-mesh sieve. The loam should be light and fibrous. Do not use peat, but leaf-soil, making up the compost as follows: Fibrous loam, two parts; leaf-soil, one part; cow-manure, one part; and sufficient sand or road grit to make the whole mass porous. Again I would not urge very firm potting; the stems and leaves, and also the roots, are very succulent, and firmness of soil would not be a gain, but a hindrance. If grown near the glass either in a greenhouse or a warm frame, the plants will soon assume a bushy shape, and, when the flower-buds form, feeding regularly with weak stimulants must be the rule.

AVON.



PERGOLA AND TERRACE. (*Reproduced from "Small Country Houses of To-day."*

BOOKS.

"SMALL COUNTRY HOUSES OF TO-DAY."

THE small houses and gardens which form the subject-matter of "Small Country Houses of To-day" (*Country Life* Library, 15s. net) are a notable sign of the times. Though this handsome volume, which Mr. Lawrence Weaver has edited, is primarily devoted to the charm of the domestic architecture of to-day, the insistence with which the relations of garden and house are discussed marks the importance of considering these two essential elements as factors in a single problem. In the Introduction are set out the points which have to be considered before a site is chosen, and the need for remembering the garden which will be made is not overlooked. It is, however, in example rather than in precept that education is most efficient, and much is to be learned about the designing of gardens and their intimate relation with the building they enshrine from the fifty chapters which describe as many houses devised by well-known architects. Some of these homes have been recently built, and the gardens are therefore not matured; but others show the results of many years of skill and care. It is difficult to specify those which please us most without making invidious distinctions; but particular praise must be accorded to the gardens at Homewood, Knebworth, designed by Mr. E. L. Lutyens, and Rosebank, Silchester Common, by Mr. Mervyn Macartney. In the case of Rosebank, a very attractive bird's-eye view of the garden is given. The house is very simple, and was built on a site already beautiful with trees and Heather. Mr. Macartney has shown particular skill in creating cultivated oases in the middle of the wild without destroying the charm of what he found. At Homewood the two loggias are enriched by a fine growth of broad-leaved American Vines, and the garden is gaily furnished with flowers. A notable feature of the book is the number of houses built by architects for their own occupation. Among them is Bishopsbarns, York, designed by Mr. Brierley, and we are interested to note that the planting of the garden was schemed by Miss Jekyll. Mr. Weaver comments as follows: "It is superfluous to say more than that the colour schemes are worthy of her, and that for summer and winter alike they have been worked out in consummate detail. They make one wonder once more how such elusive contrasts can be conceived and set out in all certainty without the practical aids of trial and error. Sitting in the loggia, one sees across the warm brick paving of the path the grey of Stachys receding through the light turquoise of Japanese Iris and the powerful blues of Delphinium to the backing of deep green in the trim Yew hedge. The illustrations show what fine play is made with Lupins."

The exquisite little thatched cottage at Hook Heath, Woking, which Mr. Horace Field created for himself, is a very engaging example of garden planning. For thatch the lover of gardens must always have a particular weakness, because it marks the employment of a direct product of the land in that most important of architectural elements, the roof.

Although this book is chiefly devoted to modern houses, there is a very valuable chapter on the repair and alteration of old cottages and farm-houses, and six chapters are given to such houses where particular skill has gone to their restoration. Among them is an enticing little place at Steep, near Petersfield, where Mr. Unsworth has laid out a formal garden of considerable merit.

There have been many books which purport to instruct the general public in domestic architecture, but the vast majority of them have suffered from two grave defects—either they have given illustrations practically without any connecting text, or only with such bare particulars as savour of the auctioneer's catalogue, or the descriptions have been sounded on a note of praise so vigorous as to verge on the fulsome. In "Small Country Houses of To-day" criticism has not been spared when it seemed just. If an elevation gives a restless effect, if a kitchen be badly planned, if there is a hint of affectation in the general design, there has been no hesitation in saying so. Scattered up and down the 240 richly-illustrated pages is a large amount of wise advice on everything to do with the planning and equipment of house and garden, and the observations with regard to one house in particular seem to gather up a good deal of wisdom. The author says, "of the garden there is little to be said. The site slopes away rather sharply from the house on one side, and offers opportunities for terrace and Yew hedge and wall that would have added greatly to the amenities of the building. A scheme has been prepared, but not yet carried out. When it is, the hint of bareness which gives to the grouping somewhat of *gaucherie* will disappear. The more civilised the type of architecture, the more needful it is to provide by gardens of formal type a middle world between the house and the country beyond. One looks for some spreading of the influence of the architecture to its immediate surroundings. The dim distances of rolling hills and plotted fields need the garden as a foreground of ordered beauty. It is in just such situations where the wide outlook gives the sense of a large freedom that the view seems to demand in the foreground the repose of quiet lines and conscious art." With this quotation we may leave a book which gives much food for thought and is likely to exercise a considerable influence on the design not only of houses, but of gardens.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Bog garden (*J. E. P.*).—Your proposal to make a bog garden of the depression which was once a pond appears in some respects a good one; but you say nothing about its present degree of wetness or whether you intend to conduct water thereto. This, of course, could be readily accomplished by means of a perforated pipe around the spot, and, having the water under control, the supply could be regulated. For the majority of things a state bordering on semi-saturation would suffice, and with an outlet at a given level, stagnation and the souring of the whole mass of soil would be avoided. Quite a large number of so-called bog plants are content if the extremities of their roots touch moisture, many others being equally content with the cool conditions arising from the presence of continuous moisture; hence you had better proceed on some such lines as these: Of the existing 2½ feet, occupy its one-half with clay moderately well puddled, affording the least possible slope to the points of outlet. Next put 4 inches of brick-bats, rubble or crocks, and cover these with thinly-cut turves, placing the grass side downwards. The level of the crocks, *i.e.*, their upper surface, should be the permitted level of the water, the level of the outlet being arranged accordingly. Above the turves the soil should be composed of peat, loam and good leaf-soil in about equal parts, 9 inches or so of this mixture being ample. With such preparation any of the hardy Cypripediums, as pubescens, Calceolus and spectabile, would be well satisfied, also Trilliums, such Primulas as Munroi, rosea, bulleyana, Sieboldii and pulverulenta, Lilium canadense, L. pardalinum, Gentiana asclepiadea, Dentaria, Corydalis nobilis, Soldanella, Ourisia coccinea and others. Of taller plants suited to the outer margin, nothing could be better than Iris Kæmpferi in variety in conjunction with Spiræa palmata. In truth, there is no dearth of suitable material when you have made up your mind in the matter. If the spot is capable of receiving much water from its surroundings, the clay bottom we have suggested could be arranged at a lower level; but if no surface water is forthcoming naturally, you had better arrange for the perforated pipes, so that a general saturation of the soil would be possible at any time. The coarser vegetation now existing would be better cleared away.

Treatment for Iris fimbriata (*T. M. D.*).—Iris fimbriata, also known as Iris chinensis, but whose latest name is Iris japonica, is a beautiful species that many fail to flower in a satisfactory manner. Out of doors it is only in particularly favoured spots that its blossoms are produced; hence it must chiefly be regarded as a greenhouse plant. As far as soil is concerned it is not very particular, though it prefers a fairly good holding compost, such as fibrous loam, lightened by a little well-decayed manure, leaf-mould and sand. If repotting is needed, it should be done directly the flowers are over, but annual potting is, in the case of this Iris, by no means necessary; indeed, it often flowers in a particularly satisfactory manner as a large mass in a good-sized pot, suggestive of an Agapanthus. If it is not repotted, the necessary stimulus may be applied in the form of an occasional dose of liquid manure during the growing season, which is in the spring and early summer months. At the time it should be given a good, light position in the greenhouse. Under this treatment it will by August have completed its growth, or nearly so, when it should be stood out of doors in a spot fully exposed to the sun. It must at that time be kept watered but rather sparingly; that is to say, less will be needed than in the growing season. As autumn advances it should be again brought into the greenhouse and stood in a good light position there. When growth recommences more water may be given, and the appearance of the flowers may then be reasonably anticipated.

Low retaining wall (*B. G., Glos.*).—In the circumstances, seeing the wall is so low, the time or method of planting it is not material. Indeed, it were better to plant only the interstices of the top layer of stones or bricks, whichever is being used, and allow the plants to trail over and down the eastern face of the wall. In your district, of course, suitable stone will be forthcoming in plenty; and if you decide to employ plants which produce a more immediate effect, the planting should be contemporary with the building of the wall. Where seeds are employed, soil should be added to the crevices of the wall at the time of its erection, the seeds to be later mixed with a little rather stiff soil and distributed horizontally along the courses of the stones. In much the same way should the plants be distributed, pulling them into small bits and so arranging them that the points of the growth just emerge from the face of the stone. The idea should be to form colonies of the more suitable things, as opposed to isolated bits, which are ineffective. In short, the whole wall might be planted with some of the more effective Aubrietias, such as Dr. Mules or Prichard's A1; or, if you prefer a little variety, you might plant Phlox Nelsonii, P. atropurpurea, P. Vivid, Campanula pusilla, C. p. alba, C. muralis (which is quite a gem in its way), Corydalis lutea (which we have met with in profusion on the wall fences of the Cotswolds), Achillea Clavennæ, A. umbellata and Teucrium aureum (all of which have whitish leafage), and others. Erinus alpinus, easily introduced by means of seed, and Dianthus deltoidea are alike valuable for affording, with the other plants named, pictures of colour. A point to remember in building the wall is the "set-back" course; that is, each course as laid should recede to the extent of three-quarters of an inch from the one immediately below. In this way ledges are formed, which, acting as receivers and retainers of the rainfall, are also responsible for conducting it to the roots of the plants.

THE GREENHOUSE.

Begonias and Smilax unsatisfactory (*Miss E. B. A.*).—The leaves and tips of the shoots sent have been very badly attacked by the Begonia mite, which can be got rid of by vaporising with the XL All Vaporiser. It is so minute an insect and so insidious in its attacks that even in the case of experienced gardeners a deal of injury is often done by this pest before its presence is suspected. In the state that your plants are, we should advise you to cut them down to within 6 inches of the pot, taking care to burn the removed portions. Then place the plants in a good light position in a structure where a nice genial temperature is maintained, say, a minimum during the night of 50°, rising 10° to 15° in the daytime with sun. Watering must be carefully done. It is necessary to vaporise them occasionally in case any insects still remain. Under this treatment the plants should soon push forth new shoots, and when these are about 1 inch long the plants may be repotted. A mixture of loam, leaf-mould and sand is very suitable for Begonias in general. Your plants of Smilax are, we should say, in a poor state of health, and need to be taken in hand at once. We presume they are in pots, in which case, if you turn them out, you will in all probability find that many of the roots are decayed. If this is so, the only thing that can be done is to repot them, in order to restore the roots to a healthy condition, and when this object is attained an occasional stimulant will be beneficial. After they are potted the plants should be placed in a genial temperature of 50° by night, rising 10° to 15° during the day. If not overwatered, the roots should soon ramify in the new compost, and in time the young shoots will follow. The above advice is based on the probability that you will on examination find the roots to be in poor condition; but if they are unexpectedly in such a good state that it will be a pity to disturb them, an occasional application of one of the many concentrated manures now on the market will be beneficial.

Injury to Carnation foliage (*Alpha*).—As far as we can gather by your letter, the Malmaison Carnations have received treatment with which no fault can be found; but the fact remains that they are in a deplorable state. They are very badly attacked both by rust and red spider, and nothing can be done to cure them. If all are as bad as those sent, we advise you to burn them without delay, tops and roots as well; and as the soil in all probability contains spores of the rust fungus, it should be removed some distance from any other Carnations. If there are any plants that you think worth keeping, they may be sprayed twice a week with a solution of methylated spirit and water, one part spirit to about 100 parts of water by measure, or any of the recognised fungicides may be used. Your better plan undoubtedly will be not to keep a scrap of the old plants, but to burn everything and commence again with healthy stock. The house in which they have been standing should also be thoroughly cleaned before any more Carnations are taken into it.

FRUIT GARDEN.

Transplanting Victoria Plum trees (*M.*).—Yes; they may be transplanted quite safely, and this will bring the trees into good bearing sooner than if left alone. Choose fairly dry weather for the purpose, do not bruise or damage the roots in lifting, and before replanting shorten the points of the longest and strongest roots by one-third their length. Mix with the soil for replanting a few lumps of turfy soil, say, half a barrow-load to each tree; also add to the soil of each tree a pint and a-half of bone-meal, and mix well together. Tread the soil firmly over the roots while replanting, and give a dressing of rotten manure 3 inches deep over the surface of the soil as far as the roots extend.

Vines shanking (*G. B. A., Herts*).—We do not advocate mixing leaf-mould with soil for a Vine border. There is a danger of its encouraging fungoid growth, and we also notice the absence of bone in the mixture, which is a mistake, as is also the mixing of the soil and its application while it was so wet and cold. Loam intended for such a purpose should, if possible, be protected from rain and mixed with other ingredients while in a fairly dry condition, and a fortnight or so before it is wanted, and as soon as it has been added to the border, it should still be protected from rain by having a deep covering of fresh leaves placed over it slantwise. The loam in the compost when applied should be in lumps the size of one's fist, and trodden very firm at the time it is applied. This treatment in the ordinary way does not affect the cropping of the Vines the same season, but it will be well to take a light crop early.

ROSE GARDEN.

Roses for a Glasgow garden (*Amateur*).—We do not advise the planting of the true Teas in a bed of Hybrid Perpetuals and Hybrid Teas. Both these latter tribes, generally speaking, have some affinity in growth; but the true Teas are very distinct, and would appear much better in separate beds. We should even go so far as to say that Hybrid Perpetuals are best isolated, for, however grand they are in July, they do not harmonise at all with the Hybrid Teas and Teas in their flowering capacity during the autumn. Of the true Teas, if you must plant with the others, we would recommend of your list Marie van Houtte only. This is a fairly erect grower. The other kinds named would be excellent if planted in groups by themselves. Of the Hybrid Teas you name, Lyon Rose, Mme. Ravary and Edu Meyer are all good; but Mrs. W. J. Grant does not grow strong enough, and Mrs. D. McKee is rather tender. Three other good kinds would be Mme. Jules Grolez, Pharisaer and General Macarthur; and five other good Teas would be Anna Olivier, Lady Roberts, Mme. Hoste, Wm. R. Smith and Mme. Jean Dupuy.

Pruning wichuraiana Roses (*B. A. B.*).—As to whether you should severely prune back the laterals that have been produced from the last season's growth, something depends upon whether you desire to cover a large area of space. If you do, we should not advise severe pruning, but just leave them about 2 feet to 3 feet long. But if space is limited, by all means cut back the laterals to three or four eyes from their base. We note you say you cut away all old wood after flowering. In the case of the wichuraiana Roses we do not advise this, only with the multiflora group represented by Crimson Rambler and Blush Rambler. The two and even the three year old rods of many of the wichuraiana Roses yield splendid blooms, sometimes even superior to the young rods, especially if the season has not been favourable to ripening the latter. It is the safest plan to retain some of the old growths, cutting away one or two each year; then, if by doing so you can afford to cut back laterals severely, by all means do so, as you will certainly obtain the finest clusters when this is done, especially from the Dorothy Perkins tribe.

MISCELLANEOUS.

Orchids for a sunny room (*S. P. R.*).—We are afraid you will not succeed in growing any kind of Orchid in your room, because they only thrive where the atmosphere is more or less moist. If, however, you care to risk a few plants, we suggest Cypripedium insigne, which can be procured at a reasonable rate. Regarding soil, &c., see THE GARDEN for December 31, 1910.

A soil fungus (*R. J. G. R.*).—The white fluffy growth in the soil is due to the presence of the mycelium of a fungus—perhaps of more than one—but of what species it is impossible to say, since it is not in fruit. It belongs to one of the capped fungi, however. If you examine the pieces you will find that in every case the mycelium is growing in and around pieces of wood in the soil and feeding upon that. Such pieces of wood in process of decay, because they invite the development of fungi, are sometimes a menace to the growth of plants, for some fungi during part of their life live as saprophytes on decaying matter, and then may pass to living parts of plants.

The forcing of Witloof Chicory (*Brussels Chicory*).—Before the greatest success can be achieved in the production of first-class forced and blanched Witloof Chicory, first-rate roots of the previous year's growth must be produced. The roots when taken up for forcing should have their leaves cut off a little above the crown of the root, and then be planted thickly in deep boxes or pots in light soil (mostly leaf-mould for preference), covering them over to the level of the crown, afterwards placing the pots or boxes in a cold part of the Mushroom-house or any dark room where there is sufficient heat to induce growth, say, from 53° to 60° Fahr. It will take them close on three weeks in a temperature of this description to produce a crop of blanched foliage fit to cut. If forced in greater heat it could be produced in less time, but the size and quality of the foliage would not be so good. It may also be successfully forced in the ground in the same way as Seakale and Rhubarb, by covering over with pots and fermenting materials, and some of the best heads we have seen have been grown and forced in this way.

Names of plants. — *Woburn.* — Odontoglossum gloriosum, small-flowered variety. —— *Miss H. W.*—1, Laurus nobilis (Sweet Bay); 2, Pernettya mucronata; 3 and 4, Aucuba japonica; 5, Aristotelia Macqui variegata; 6, Probably Arbutus hybrida.—— *Specimen Trees.*—1, Cupressus nootkatensis; 2, C. lawsoniana erecta viridis; 3, Thuya plicata; 4, Cupressus lawsoniana; 5, Picea excelsa.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting took place in the Abbey Hall on Monday, February 6, when there was again a large attendance, the president (Mr. Alderman Parfitt) occupying the chair. The minutes of the last meeting having been read and confirmed, the president, in a most feeling manner, referred to the recent death of Mrs. Martin Sutton, and proposed the following resolution: "That this meeting of the Reading and District Gardeners' Mutual Improvement Association tender to Mr. Martin J. Sutton and family their deep sympathy in the very great bereavement they have sustained, and that the hon. secretary be requested to convey this resolution to Mr. Martin J. Sutton by letter." This was seconded by the vice-chairman, Mr. H. Goodger, and carried *sub silentio*, all those present standing. New members having been elected, the president explained that owing to the illness of Mr. E. J. Dore, who was to have spoken on this occasion on "Begonias," Mr. J. W. Tayleur, B.Sc. of the Reading University College, had most kindly brought his lecture on "Soils," which was to have been given on February 20, forward to that evening and so filled the gap created by the absence of Mr. Dore. Mr. Tayleur was no stranger to his audience, having lectured to them on "Manures" about twelve months ago, and then, as on the present occasion, he was followed with deep attention and interest. The lecturer explained that he did not intend to deal with his subject from its practical point of view, his audience being probably better versed on that side of the question than he was. His remarks would deal with soils from their scientific aspect alone. Mr. Tayleur is to be congratulated on handling such a complex subject in a fashion easily intelligible to all present, and his lucid manner of making perfectly plain any little intricacies was much appreciated. The different factors of soil fertility, mechanical analysis of soils, chemical analysis, availability of the plant food, organic matter and lime in soils, effects of manure (nitrogenous, phosphatic and potash) and the essential elements of plant food were in turn dealt with. Mr. Tayleur ably answered the many questions put to him by the enquiring minds. He was warmly applauded, and received a hearty vote of thanks on the proposition of the president, seconded by the hon. secretary.

NATIONAL CHRYSANTHEMUM SOCIETY.

ANNUAL MEETING.

WE never remember a more satisfactory annual meeting of this society than that which took place on Monday evening, February 6 last, at Carr's Restaurant, Strand, W.C., Sir Albert Rollit, LL.D., D.C.L., president, in the chair. There was a splendid attendance of members, and the utmost good feeling prevailed. Mr. C. Harman Payne, before the actual business of the meeting commenced, rose on behalf of the society and congratulated the chairman on the honour recently conferred upon him by His Majesty the King of Norway of Knight Commander (First Class) of the Order of St Olaf. In replying, Sir Albert Rollit said the honour came as a great surprise to him, and was given for his efforts in the direction of the settlement of disputes by arbitration, which efforts were directed by and through the agency of the London Chamber of Commerce. After the minutes of the last annual meeting had been read and confirmed, the president dealt with the report and balance-sheet, a copy of which had been sent to members. He spoke in high praise of the exhibitions of the past year, and said that the November show was regarded as the finest the society had ever held. A well-deserved compliment was paid to the chairman of committees and the secretary for their excellent work. Especial mention was made of the visit of a deputation of the National Chrysanthemum Society to France in November last, on which occasion they presented medals of the society respectively to the president of the National Horticultural Society of France (M. Viger), the premier vice-president of the same society (M. A. Truffaut) and to M. Maxime de la Rocheterie, president of the French Chrysanthemum Society. Sir Albert spoke in glowing terms of the reception given to the deputation as representatives of the National Chrysanthemum Society of England, and mentioned that in this way we were cultivating goodwill. On the three gentlemen above named the society proposed to confer the honorary degree of fellowship. Mention was made of the increase of membership, and the president said he was, together with the secretary, endeavouring to obtain a considerable increase in the membership of the society. The important work of the floral committee was highly eulogised; it maintained its highest obligations. The conference held in December last was most useful and very successful. A reference was made to the International Exhibition of 1912. Several of the society's officers were members of the executive committee. The financial year closed without a single liability, and they had a balance at their bankers. The adoption of the report and balance-sheet was proposed by the president, seconded by Mr. T. Bevan, and carried unanimously. A vote of thanks to the auditors was also carried. The re-election of Sir Albert Rollit as president of the society for 1911 was proposed by Mr. Bevan and seconded by Mr. D. B. Crane, the latter referring to the distinguished services of the president in so many ways. Other officers who were re-elected were: Mr. John Green, treasurer; Mr. Thomas Bevan, chairman of committees; Mr. E. F. Hawes, vice-chairman of committees; Mr. C. H. Payne, hon. foreign corresponding secretary (re-elected for the twenty-third year); and Mr. Richard Witty, secretary. From the president downwards representative officers paid well-merited compliments to Mr. Witty for the excellence of his work. The president then moved that, in accordance with Rule 7, the three French gentlemen already mentioned, together with Mr. J. H. Witty and Mr. D. B. Crane (chairman of the floral committee), be elected honorary Fellows of the society. This was seconded by Mr. J. W. Moorman, who said that as medals had been presented to MM. Viger, Truffaut and de la Rocheterie, he thought medals should also be given to Messrs. Witty and Crane. The president readily acquiesced in the suggestion, and upon the motion being put to the meeting it was carried with acclamation. Of the twelve retiring members of the executive committee (one-third) ten were eligible for re-election. These, together with two others, were elected on a show of hands, and their names are as follows: Messrs. R. Ballantine, W. Cassidy, P. A. Cragg, C. H. Curtis, D. B. Crane, A. J. Foster, W. Newton, G. Prickett, A. W. Seabrook, J. Tyler, J. Kirkwood and Frogwood. A vote of thanks to the president for his presence and for presiding was carried with much enthusiasm.

TESTIMONIAL TO MR. T. W. SANDERS, F.L.S.

ON the occasion of the annual Bohemian concert of the National Amateur Gardeners' Association, which took place at the Holborn Restaurant, Holborn, London, W.C., on Tuesday, the 7th inst., the presentation of a handsome illuminated address was made to Mr. T. W. Sanders, F.L.S., president of the association. There was a large company present, and considerable interest was evinced in the proceedings. Previous to the actual presentation by Mr. John Collingridge, a patron of the association, Mr. D. B. Crane (deputy-president) spoke at some length of the services rendered to the association by Mr. Sanders since its inception. They were there that evening celebrating the twenty-first year of the association's existence, and he exhibited to those present the minutes of the meeting called together by those who founded the association in the Corn Exchange Tavern, Mark Lane, London, E.C., in 1890. Mr. Crane was able to show how the work grew in earlier days, when he was himself hon. secretary for five years, and subsequently under able successors in the secretariat. Reference was made to the influence the association had exercised throughout the United Kingdom and in our British Colonies, where there now exist numerous societies conducted on very similar lines, and many of which had the association's rules, &c., as their basis of working. To Mr. Sanders and his excellent work for the association the members were largely indebted, for throughout this long period of twenty-one years he had laboured most persistently for their good as well as for amateur gardeners generally. Mr. Crane then asked Mr. Collingridge to make the presentation on behalf of the executive committee and the members of the association, and this he did in an extremely gracious manner. Musical honours were accorded the recipient of the address. Mr. Sanders, who seemed much touched by this evidence of the esteem in which he is held, made a most delightful speech in response, telling of his love of gardening and of his willingness at all times to help those who were in doubt or difficulty.

BOURNEMOUTH GARDENERS' ASSOCIATION.

ANNUAL GENERAL MEETING.

ON Tuesday, February 7, the annual meeting of the members of this important association was held in the Avenue Assembly Room, Town Hall Avenue. The chair was occupied by the president, Mr. J. H. Ralph Smythe, J.P. The annual report and statement of accounts were read by the hon. secretary, and after a short discussion they were formally adopted. The lectures and papers delivered during the past year were very favourably commented upon. The new programme for the coming session is a very good one. Lectures will be given which will prove of interest to horticulturists both at home and abroad, as they embrace a wide range of subjects. More exhibitions of garden produce are to be held during the coming sessions in connection with the lectures than formerly. There is a handsome prize to be given to the member who gains the greatest number of points at the end of the year. These are all, in addition to the usual certificates, to be given for fruit, flowers or vegetables of high merit, as in past years. The retiring officers and committee were heartily thanked for their services. The president was re-elected, also the vice-presidents, and several other gentlemen were added to this list. Nearly all the old members of the committee were re-elected, and several vacancies were filled by other members of the association. The hon. secretary, Mr. Stevenson, was re-elected; he has been very prominently connected with the association since its first meeting. The resignation of the assistant-secretary, Mr. W. Shave, was received and accepted with deep regret, as he has filled the post for many years with considerable distinction. Mr. Charles Nippard was elected to the vacant post, and the good wishes of the members for his success were expressed. Messrs. R. Chamberlain, W. Reeves and G. Barge were respectively re-elected as trustee, treasurer and librarian. A more widespread interest is being taken by prominent residents in the doings of the association. The total membership is now about 100, and the future seems bright and promising.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE ROYAL HORTICULTURAL SOCIETY'S JOURNAL.

At the annual general meeting of the Royal Horticultural Society, held on the afternoon of the 14th inst., just as our last issue was going to press, the only subject which came up for discussion was the society's Journal. This publication, as many of our readers are aware, is issued in quarterly parts to Fellows of the society, and is a record of work that has been done in the past. Mr. H. J. Elwes, in his criticism of this publication, was careful to make it clear that his statements did not in any way reflect on Mr. Chittenden's excellent work as editor of the Journal; but rather he eulogised the improvements that have been made in recent numbers.

But Mr. Elwes would go further and supplement the existing Journal by another publication, which would, by means of coloured plates and full descriptions, form a permanent record of new plants, particularly those from China, certificated or granted awards by the society, as well as including to a fuller extent the transactions of the society. Whether, as Mr. Elwes seems to think, many of the Fellows would be prepared to pay an extra guinea per annum for this publication remains a moot point, but one, of course, that can be ascertained. That such a publication would be of considerable and lasting value no one, we think, will question; but to reproduce in colours, if the work is done as well as it ought to be, is an expensive business, and would cost a great deal if carried out on such an extensive scale as we understand Mr. Elwes to desire.

The question of a paid editor of the Journal, which was also raised, deserves consideration. The society is now a wealthy one, and the balance on last year's work was over £8,000, so that it can scarcely be said that such payment cannot be afforded. The editing of the present Journal entails a vast amount of work—much more than most of the Fellows imagine—and must make serious demands on the valuable time of Mr. Chittenden. The Rev. G. H. Engleheart was, we think, rather severe in his criticism of the present Journal. If he imagines that the appointment of a paid editor will be a certain safeguard against slight errors occurring occasionally, he is doomed to disappointment. Indeed, we do not think that the Journal, in its present form, would be one whit better than it is now if a paid editor were appointed; but it scarcely seems fair for a wealthy society to expect that such an important publication shall be edited for nothing. No doubt, now that the matter has been brought up, the whole question will receive the close attention of the Council, and we think that body may be relied upon to take whatever steps are necessary to give the Fellows a publication such as the majority express a wish to have.

THE PROPOSED NATIONAL DAFFODIL SOCIETY.

Following the annual general meeting of the Royal Horticultural Society at Vincent Square on the 14th inst., a number of Daffodil enthusiasts met in one of the committee rooms, at the invitation of Mr. W. B. Cranfield, to discuss the desirability of forming a national Daffodil society. The Rev. G. H. Engleheart presided, and among others present were Miss Willmott, Sir John T. D. Llewelyn, Bart., the Rev. J. Jacob, and Messrs. R. Sydenham, P. R. Barr, C. Pearson, F. H. Chapman, R. Wallace, E. A. Bowles, James Douglas, E. M. Crosfield and H. R. Darlington. The proceedings were of a purely informal character, and the discussion proved that there was a strong feeling that such a society should be formed. As Mr. Cranfield pointed out, the work of a national society need not in any way interfere with the work of the Daffodil and Tulip committee of the Royal Horticultural Society, but rather would the society undertake work which that committee could not, at least under present circumstances, do.

The Rev. J. Jacob's proposition that the Royal Horticultural Society be asked to subsidise their Daffodil committee, to allow it to run a Daffodil show apart from the ordinary fortnightly exhibitions of the society, and to allow the committee to publish a year-book at the expense of the society, would, if it were possible, have done away with the necessity for forming a national society; but after carefully considering the matter we do not think that the Council is likely to listen to such a proposition, nor can it hardly be expected to do so. We know that Mr. Jacob and several others who supported his suggestion will be only too pleased to

support a national society should it be formed; and that Mr. Cranfield has a great deal of support other than that manifested at the meeting was evidenced by the letters he had from those unable to be present.

The two difficulties which appear to beset the formation of a national society are the existence of the Daffodil committee of the Royal Horticultural Society and the excellent Midland Daffodil Society with its head-quarters at Birmingham. In relation to the former the Rev. G. H. Engleheart pointed out that if a national society were formed, one or the other must take the lead. Other flowers, such as the Rose and Sweet Pea, which have special societies, now come under the ægis of the floral committee of the Royal Horticultural Society, which gives awards or certificates to new varieties quite independently of what the special societies may do; and there is no reason why, in the event of a national Daffodil society being formed, the Daffodil committee of the Royal Horticultural Society should not do the same; indeed, we think it may be taken for granted that its work would go on as it always has done. The Midland Daffodil Society presents a greater difficulty. Every Daffodil enthusiast is cognisant of the good work that has been done at Birmingham, and while the society's mainspring in the shape of Mr. Robert Sydenham is with us, we know that the work there will go on unabated. It is, however, a difficulty that can be overcome, and, judging by Mr. Sydenham's remarks, he is prepared to do anything within reason to assist the work of a national society.

Mr. Darlington made out the strongest case for the formation of a national society when he said that one of its principal objects would of necessity be the popularisation of the Daffodil among small amateur growers. He rightly pointed out that this was work which the Royal Horticultural Society could not be expected to do. Nothing definite was decided upon at the meeting; but we understand that another gathering of those interested will take place on March 14 at the Royal Horticultural Hall, Vincent Square, Westminster. In the meantime we invite readers to express, briefly, their views on this subject.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 28.—Royal Horticultural Society's Meeting and Exhibition at Westminster.

March 2.—Linnean Society Meeting, 8 p.m.

March 4.—Société Française d'Horticulture de Londres Meeting.

More honours for nurserymen.—Mr. T. Jannoch, Dersingham, Norfolk, has been honoured with the Royal Warrant of Appointment as Nurseryman and Lily of the Valley Grower to His Majesty the King; and similar Warrants have also been granted to Messrs. Joseph Bentley, Limited, Barrow-on-Humber, as Horticultural Chemical Manufacturers; Messrs. Dickson, Brown and Tait, Corporation Street, Manchester, as Seedsmen; and to Messrs. William Cooper and Nephews, Berkhamsted.

Our Spring Number.—Our issue for next week will be a special enlarged number, and will contain a number of articles of more than usual interest. All branches of gardening will be dealt with by practical writers, and the illustrations will be even better than usual. A coloured plate of early-flowering Cosmos will be included.

The "Selborne Magazine."—The Selborne Society has enlarged its magazine and printed it on art paper. Our readers may remember that for many years it was called *Nature Notes*, but two years ago the old name of the *Selborne Magazine* was once more adopted. In the present number there is an interesting article on "Highland Bridges," by Mr. Hugh Boyd Watt. Miss Hodgson, who has so successfully introduced Nature-study into the Croft School and the Croft School Circle, gives some hints on the teaching of natural history in connection with geography and archæology. There are many interesting natural history notes and the number is thoroughly well illustrated.

The National Vegetable Society's schedule.—We have just received a copy of the above society's schedule, which contains particulars of its second annual exhibition, to be held in the Royal Horticultural Hall, Vincent Square, Westminster, on August 30 next. No fewer than seventy-nine classes have been arranged, and many of them are specially suitable for small growers, the single-dish classes in particular. In addition there are classes for professional gardeners and market growers, so that practically the whole of the vegetable-growing community is catered for. Copies of this schedule can be obtained, post free, from the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

Exhibition of flowers at Boskoop.—The buildings for the exhibition of forced shrubs and perennials, which will be held at Boskoop, Holland, in April of this year, are almost finished. They will be heated free of charge by the Dutch Central Heating Company of Amsterdam, and in the evening illuminated by electric light. In the exhibition grounds there will be a post and telegraph office, and every hour there will be a passenger boat between Boskoop and Gouda, the nearest railway station. The number of exhibits promised amounts to 500, that of novelties to more than 100, and that of little-known plants to 60.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Carpet-bedding.—One has but to visit our public parks and gardens during the summer months to see how much the bedding is appreciated by the great mass of the people. Bedding as now carried out is less garish than it used to be, and a much wider range of subjects is employed. Peckham Rye Park is remarkable for the excellence of its summer bedding, and the crowds of visitors testify to its popularity. I can also endorse the remarks of your correspondent "A. D." as to carpet-bedding still having numerous admirers, for a carpet-bed at Peckham Rye Park, of exceptional merit, it is true, formed last year a great centre of attraction to the visitors.—H. P.

Lilium nepalense and sulphureum.—I have been greatly interested in the letter of your correspondent C. Blair, Linlithgow, *re* these Lilies, for he describes what was precisely my own experience with various other Lilies last year—L. longiflorum, L. Krameri and L. auratum (both platyphillum and rubrum vittatum). They all came up splendidly and formed their buds. Those of auratum platyphyllum were about 4 inches long; but, just as they were colouring, they withered away. I consulted Mr. Amos Perry, from whom I had bought the bulbs, and a local man, and they both told me the same thing, viz., that it was a "bad year for Lilies." Possibly, if I could have moved them into heat they might have bloomed; but my little greenhouse faces north, and is only heated by oil-stoves and the warmth from the sitting-room fire. The only auratum I succeeded in flowering was a freak; the stem started as a single one, became very much fasciated later, but was flat, not round, and when near the top divided in two. That Lily had forty-three buds on it; some shrivelled, others I disbudded, but about twenty flowered. That bulb has already started into growth again, but with five separate shoots, all looking vigorous so far. The only Lily that was thoroughly satisfactory last year was L. speciosum, each bulb of which bore from sixteen to twenty-three blossoms, all of good size and colour. A few L. dauricum and L. Thunbergii flowered, but most of them came up blind. L. szovitzianum was another disappointment last year; but this year, with no attention at all beyond repotting it in the autumn and leaving it severely alone, it has sent up two strong shoots, which are now about 2 feet high. Whether they will flower remains to be seen. It has rather a cold position, but Lilies seem such freakish plants—at any rate, to my inexperience—that I dare not interfere with it, and am almost afraid even of watering it. Miss Jekyll's lovely and fascinating book is responsible for my having gone in so strongly for Lilies last year, and I was so disappointed with the results that I have taken no trouble at all this year, which they seem greatly to prefer, or else it promises to be a "good year for Lilies," for my other spring bulbs which did so splendidly last year are almost a complete failure so far. They are grown from fresh bulbs bought from reliable sources.—(Miss) W. TUCKER, *South Hampstead.*

——There can be no doubt that the very qualified success achieved by your correspondent (page 63) was owing to the late season at which they were planted. There is perhaps no other Lily less affected by being kept out of the ground for a long time than L. sulphureum; but even this has its limits, and though the bulbs do not show it much, this treatment greatly impairs their vigour of growth and flower. In order to secure the best results, these Lilies should be obtained as soon as possible after the bulbs arrive, and on this point I may say that nearly all the bulbs are imported by one firm, and on calling there a few weeks ago I was shown an early importation of grand bulbs. Such being the case, there is no reason for purchasing them so late in the season. If the bulbs are potted in February or in the early part of March and placed in an ordinary greenhouse, they soon begin to root, though in this respect L. nepalense is slower than L. sulphureum. A weak shoot is quite characteristic of L. nepalense, for although it may attain a height of 5 feet to 6 feet, or even more, and produce several blossoms, the stem is, even at the base, very slender. Both Lilies are rather slow in pushing up their growth, but once they make their appearance above ground L. sulphureum grows with great rapidity, and L. nepalense is not very far behind it. When these Lilies are grown in pots no artificial heat is needed during the summer months; but if the blossoms develop late in the autumn a little fire-heat is of great assistance to them. For conservatory decoration at that season they are invaluable.—H. P.

Pleasure derived from gardening.—There is so much truth and force in a paragraph of Mr. Owen Thomas's article which I find on the first page of THE GARDEN this year that it seems to

me it should be emphasised and brought home to every garden-lover in the land. "Those who extract the greatest pleasure from their gardens are those who do most of the work of the garden themselves." This is the sentence to which I refer. And he continues, "It does not matter whether it is fruit, flowers or vegetables which are grown. The fruit will be more luscious and sweet, the flowers brighter and more fragrant, and the vegetables more wholesome, than if grown by other hands." Whether or not all this is literally true is of little consequence when the effect is the same. While the fruit may not be any more luscious as a matter of fact, nor the flowers any more fragrant than if grown by the professional or market gardener, the working amateur gardener feels and believes that they are. He is thus convinced of it, and that is enough for him. Our enjoyment of anything depends, after all, upon our individual impressions rather than the actual quality and conditions inherent in the thing under contemplation.—H. HENDRICKS, *Kingston, New York.*

Why not a Pansy society? — If the newly-formed Hardy Plant Society purposes to devote its energies specially to such forms as alpines, rock plants, perennials or others not generally known as florists' flowers, then the good old Pansy must not look for any specific encouragement in that quarter. Seeing how many flowers now have their own special societies, is it improper to ask whether so universally popular a hardy garden flower as is the Pansy does not merit the same form of patronage? We may remember now that since the existence of the old florists' or English forms a great change in the variety of the Pansy has come; and between the superb fancy or blotched forms, the myriad of noble bedding ones, and then the astonishingly varied group of Tufted Pansies commonly known as Violas, grown by everybody and everywhere, there is material for a new society to work upon, and which, while full of interest and beauty, appealing as it does to the worker in the smallest or the proud owner of the largest of gardens, at the same time admits of no booming or is at all capable of creating an unhealthy *furore*. Widely as the Pansy is grown, it does seem as if so many of its most beautiful forms were little known. Still further, what may be described as high or special culture seldom falls to the lot of the Pansy. When we read of the elaborate preparation in the form of soil, manuring and working needful to make the Sweet Pea respond to what is expected of it, one smiles to think of the wealth of beauty that can be got from Pansies with one-fourth the trouble and outlay. Happily, too, these plants will not thrive under such an excess of rich culture and coddling as seems needful to create show blooms on the plants of Lathyrus odoratus. When the old florists made the English Pansy a show flower they limited their selections to rayed and selfs. Of the former they had white and cream grounds, and of selfs white, yellow, blue and purple grounds. But such sections did not admit of any great variations, and interest in them was not prolonged. When the superb blotched fancies came in, the old formal forms died out. Had the old florists seized on the new-comers as the Dahlia men did on the Cactus Dahlias, and used them for their popularisation and development, and, later still, further taken in hand the Tufted or bedding race now so varied and so beautiful, what a prolonged life that old florists' society might have had! The Tufted or Viola section we know yet cannot be trusted to come true from seed, but many of the large-flowered bedding section can be so. These merit all encouragement, as all hardy plants which come true from seed are of the greatest importance to all who garden.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

PROPAGATING VINES. — The most satisfactory way to propagate Vines is from buds or eyes taken from moderately strong, well-ripened wood of last year's growth. The method was illustrated in THE GARDEN for February 11. Plunge the pots into a hot-bed of moderate warmth and lightly spray the plants twice a day. Water must be given with care till the roots are active, or the buds will rot. Give the plants a shift into 5-inch or 6-inch pots before they become pot-bound, using the same compost as before, except that it may be a little coarser. The pots must again be plunged in a hot-bed and kept growing in a warm, moist atmosphere.

Planting Vines.—Although it is too early yet to plant Vines, it will be as well to prepare the new border at once, as work is not so pressing now as it will be a week or two hence. The soil will also be thoroughly warmed through and in better condition to receive the plants than if this work is delayed till planting-time arrives. Late Grapes should have a fairly deep rooting medium; 3 feet will be none too much, provided there is free and ample drainage. For early and midseason varieties 2 feet 6 inches will be sufficient. For the first two seasons a border 4 feet wide will be ample. Should the subsoil be of a cold, heavy nature, it is advisable to place a thin layer of concrete under the drainage material to prevent the roots going down. The top spit from an old pasture containing plenty of vegetable fibre should be procured, if possible, to form the border. Into this should be incorporated a good portion of old brick rubble, wood-ashes and coarse crushed bones. The soil must be in proper condition, so that it may be made quite solid by ramming. The best time to plant is just when the buds are bursting into growth, which will be towards the end of March or beginning of April. At this time the border will be quite warm, and the temperature of the vinery can be kept sufficiently high without using too much fire-heat. The roots must be carefully "teased" out with a pointed stick. This work will be facilitated by occasionally dipping the ball into a tub of lukewarm water.

FLOWER GARDEN.

Lawns.—These should be well swept and rolled. Any levelling which requires to be done may be seen to now. This is also a favourable season to give attention to lawns which are becoming impoverished. A dressing of some approved lawn manure should be applied where this is necessary. Where it is intended making new lawns by sowing seed, the ground should be prepared in readiness for sowing the seed whenever the weather will admit of this being done.

Herbaceous Borders.—Any work of rearranging the plants or dividing large clumps should be no longer delayed. Afterwards fork up the ground between the plants and work in some well-rotted manure. The front of the border may be made bright during the spring by planting spring-flowering annuals. Ranunculus, Gladioli, Tigridias and Anèmones may also be planted. Examine all spring-flowering beds, press down any plants which have been disturbed by frost, and make up any deficiencies from the reserve beds. Move the soil between the plants with a hoe when the conditions are favourable.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

CLIMBERS on arches, pergolas and walls should now be pruned and tied in. Remove as many of the old growths as can be safely done without leaving bare spaces, substituting young growths to take their places. Roses of the rambler type should not be severely thinned, the growths of last season being left their full length.

Propagating.—Tubers of Dahlias should now be placed in a heated structure near the glass and covered with some light soil to produce cuttings. If a temperature of 55° is maintained and the tubers given an occasional syringe with clear water they will soon produce sturdy shoots suitable for cuttings. These should be detached with a sharp knife and inserted singly in small pots of sandy soil. For decorative purposes only the intending grower should not depend on the varieties he sees on the show-boards, as many of the finest of these are very disappointing when planted out for floral effect. Flowering as they do but sparingly, with what flower they have hidden under the foliage, they are only good for exhibition purposes. A comparatively new race, the Pæony-flowered Dahlias, give promise of a valuable acquisition for the flower garden; their long stems, together with their lovely form and wide range of colour, adapt them admirably for floral decoration. Where tubers are plentiful and the necessary room can be afforded, propagation by cuttings may be dispensed with, and the tubers, after being started into growth and divided into the requisite number of plants, can be potted up into 5-inch or 6-inch pots. Treated thus they form large, strong plants by the bedding-out season, flower earlier and produce a larger quantity of bloom.

Sowing Seeds.—Seeds of various half-hardy annuals for the flower garden may be sown from time to time, so that the work of pricking-out may not come on all in one great rush, selecting first varieties that need the longest season to come forward, such as Lobelias, East Lothian Stocks, Alonsoa, Salpiglossis, Coreopsis and Petunia. I notice that it is often recommended to sow East Lothian Stocks early in January; indeed, so much is the necessity of doing so entertained by some seedsmen that they will forward the seeds in advance of all others. This happens with me year after year, although I get very good results from sowing regularly about the end of February; and one year, owing to an accident, I had to resow one variety as late as the end of March, and this flowered almost as early as the others, viz., the middle of July, and remained in flower till damaged by frost. As so many of our Northern gardens have to look their best from August onwards, earlier displays should be avoided. Stocks are very liable to damp off at the neck in the early stages of their growth, so that a careful watch is necessary.

Standard Fuchsias.—Those intended for summer bedding should now be removed from their winter quarters into a warmer house, and as soon as they begin to move into growth should be trimmed back into shape. They should also have a portion of the old soil shaken from the roots and be repotted into a mixture of rich loam. When growths 2 inches long have been made, cuttings can be taken for increasing the stock.

Plants of Calceolaria amplexicaulis that were lifted from the beds for providing standards should now be potted on, giving 8-inch pots where good specimens are desired; the same advice applies to Heliotropes or other standard plants for bedding purposes. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

VINES AND PEACH TREES IN THE SAME HOUSE.

IN many instances Vines and Peaches are grown in the same house. This is not an ideal way of cultivating these two popular and valuable kinds of fruits; but it is a fact that many persons wish to cultivate both Grapes and Peaches, and only possess one glass structure in which to plant the rods and trees respectively. Only in exceptional circumstances can the very best quality fruit of both kinds be grown in the same house, but produce of really good quality can be obtained. When undue forcing is resorted to there is less likelihood of the cultivator securing satisfactory crops of both kinds of fruit. The better plan is to allow the new growth to start under the influence, mainly, of the sun-heat, which will raise the temperature of the house considerably after the beginning of March. Of course, the fire-heat must be utilised to maintain an even temperature at night and to prevent the heat going too low on dull, cold days.

Where Muscat of Alexandria Grapes are grown with Peaches, it will be advisable to close the house not later than March 10, so as to have the Grapes ripe by the first week in October. Black Hamburgh, Buckland Sweetwater, Foster's Seedling and Madresfield Court Grapes will ripen fully by the middle of September if the closing of the house is delayed until the end of March or early part of April. All late-keeping varieties of Grapes must be started early in March.

By closing the house I do not mean the shutting of all ventilators both day and night. It would be a mistake to do this. On very fine days, at this season of the year, a little top ventilation is desirable so long as cold draughts are excluded. The first difficulty comes at an early stage; the Peach trees are in full flower just at the time when the Vines are breaking into new growth. The Vines at this stage require a rather moist atmosphere and the Peaches a dry one, so there must be a compromise. During the finest part of the day air should be admitted rather freely, but judiciously, so as to dry the pollen of the Peaches. At the same time a little damping of the floor or border under the Vines will greatly benefit them. If there are evaporating troughs on the hot-water pipes, the filling of such troughs must be discontinued for a time, as too much steam would arise. About noon on a bright, sunny day the Peach trees may be syringed; this action wil assist the setting of the fruits and also prove beneficial to the Vines. The disbudding of the Vines and Peaches must be commenced while the shoots are quite small. The Editor informs me that he will publish further hints on this subject in due course.

AVON.

FRUIT TREES FOR SMALL GARDENS.

(*Continued from page* 80.)

VARIETIES of Apples, Pears and Plums best suited for small gardens: Apples, dessert—Mr. Gladstone, in season July and August; Lady Sudeley, September; James Grieve, October; Cox's Orange Pippin, October and November; William Crump, November to Christmas; Cockle Pippin, Christmas to February. Apples, cooking—Potts' Seedling, August and September; Stirling Castle, October; Grenadier, October and November; Bismarck, December; Lane's Prince Albert, January; Newton Wonder, January to March. Pears, dessert—Petite Marguerite and Williams' Bon Chrétien, September; Conference, October; Louise Bonne of Jersey, October and November; Emile d'Heyst, November; Beurré Superfin and Doyenné du Comice, November and December. Pears, stewing—Pitmaston Duchess, October and November; Vicar of Winkfield, December and January. Plums, dessert—Early Transparent Gage, flavour rich and sweet, and a good bearer; Old Golden Gage, still one of the best; Late Transparent Gage, useful for late supply; Bryanston Gage, a midseason variety; Kirke's, a dark purple Plum, one of the best. Plums, cooking—many of these are good for dessert also—The Czar, a valuable Plum for dessert or cooking; it is a great bearer and ripens early, colour purple; Rivers' Early Prolific, splendid early cooking variety, the best of all for jam-making; Belgian Purple, an enormous cropper of excellent quality; Jefferson, bright yellow, flesh rich and sweet, good for dessert or cooking; Pond's Seedling, a fine late and handsome Plum, of large size and good flavour; Victoria, too well known to need describing; Damson Farleigh's Prolific, one of the best.

OWEN THOMAS, V.M.H.



A CHARMING PRIMULA FOR THE ROCK GARDEN: P. PUBESCENS ALBA.

THE FLOWER GARDEN.

A PRIMULA FOR THE ROCK GARDEN.

PRIMULA PUBESCENS ALBA, or nivalis of gardens, is one of the most desirable members of this large genus, and one that is always recommended with confidence as a charming addition to the rock garden. When fully developed it attains a height of 6 inches to 9 inches; the leaves are smooth and spathulate in shape, and are prettily toothed along the margins and arranged around the central stem in the form of rosettes. The flowers are snowy white and freely produced in clustered heads upon stems some 6 inches in length, and appear as elegant ball-like trusses, opening out of doors early in spring. It succeeds best in rich cool loam in a half-shady spot in the rock garden, and gains immensely in effect when planted among some of the smallest Ferns, and if possible in such a position that the plants may appear to break over a rocky ledge. It is a good grower, and should it ever become leggy, the plant must be lifted and pulled to pieces, replanting these in fresh soil and burying the stems right up to the leaves so that each portion may be encouraged to root freely from the underground portions of the stem. As a subject for growing in pans it can scarcely be excelled. It is easily grown and the flowers are produced very freely, being in this latter respect much more desirable than some of the more tender species commonly met with. Rich loamy soil in well-drained pans and potting the plants moderately firm are the simple requirements for this system of culture, and if the plants have a position in any cool greenhouse towards the end of January, they will flower some time in February and continue in perfection for almost a month.

Chiddingfold, Surrey. THOMAS SMITH.

BULB NOTES.

RUMINATIONS.—Was there ever a time in the annals of gardening when bulbs were not popular? Probably not. At all events, there is not much doubt about it at the present time. Every horticultural firm which considers itself at all up in the world considers one of its annual necessities the issuing of a bulb list. Contrariwise, the reception and perusal of these lists are among the perennial pleasures of everyone who has a garden. Bulbs are wonderfully accommodating things. I have a tortoise which we call Timmy, and for the last three months he has been fast asleep under some nice dry leaves in the cellar. Just now, with a little careful packing up, he could very easily undertake a long journey.

Bulbous plants are the "Timmies" of the vegetable kingdom. When they have retired into their shells they can be sent about so readily and so safely that if I lived to about ten times the age of Methuselah I should not be surprised to find that, if it is really true what botanists tell us about dispersion and propagation being the two things that plants worry themselves most about, then all well-brought-up plantlets would be taught, just as we teach the "three R's" to-day, how to take on a bulbous state as an essential part of their life cycle. This would be mightily convenient, we must

all admit. Let everyone, then, buy bulbs; and now let me try to tempt you.

Species Crocuses (or Croci?).—How few there are who know the delights of these exquisite flowers, and what a treat they miss! For a bright and novel show in the latter half of January commend me to species Crocuses. They can be bought very cheaply, and one need not have a greenhouse to put them in. An ordinary cold frame is all that is wanted. There they can be planted out and they will take care of themselves, and with the friendly help of the glass light they will make a brave show in the dark January days whenever there is a little sun and warmth to tempt them to unfold. I must say, however, that a cold house from which the frost can be excluded and in which they can have abundance of air has certain advantages, for, like the florist's Tulip, you must look well into them to see all their beauty.

Let me give an idea of what can be bought for the modest sum of 5s. (1) Twelve C. biflorus, enough to fill two 4½-inch pots (cost, 6d.). Speaking proportionately, a medium-sized pure white flower with dark lineal markings on the outside of the three exterior petals—botanists, please forgive the slack expression; it is so much easier for ordinary people to follow. When it is wide open these still show through and enhance its charm, like patches did for the powdered ladies of olden days. (2) Twelve C. Imperatii (cost, 8d.). Six bulbs would go in a 5-inch pot. It is larger than the preceding and varies considerably in its shades of mauve or pale lilac. When in the bud stage it looks as if it would be a buff, but this is confined to the external surfaces of the guard petals. (3) Eighteen Sieberi (cost, 1s.). Two pots are not enough of this little gem. It is a small, soft lilac flower and very free. (4) Twelve tommasinianus (cost, 9d.). A tall pale Imperatii of a peculiarly delicate tone. (5) Twelve mesaicus (aureus) (cost, 9d.). A sort of giant among this small fry. A rich pure yellow without spot or marking of any kind. (6) Twenty-five C. susianus (cost, 6d.). A small golden yellow flower which is, I think, almost prettier in the bud stage than when fully open, as its exterior is marked with glossy brown colouring, which looks very handsome alternating with the gold of the interior petals. (7) Ten or eight C. Korolkowii (cost, 10d.). A flower of a more lemony yellow than is usually to be found among Crocus, and on this account should be included in the smallest collection. Now, let me sum up. Total cost, 5s.; number of pots, sixteen; time of blooming, the latter part of January. "Not a bad show for winter-time for the money" is a verdict that anyone who tries it another year will assuredly maintain.

Naturally, if we spend more we shall expect more, and we shall not be disappointed if we include in a more extensive collection such kinds as Olivieri, a jolly little Crocus of the deepest yellow dye; etrusus, a delicate lilac, with a pale buff outside; dalmaticus niveus, creamy white; Balansæ, deep yellow or orange; candidus—under this name I have a delightful medley of yellow shades, all very pretty and in a mass most effective; alatavicus, white, with black veining on the exterior; ancyrensis, orange; lævigatus, a very free pale purple; and the starry yellow chrysanthus. For information as to what to include in a larger collection still, which might well take in earlier and later varieties, may I refer to the grand series of articles in THE GARDEN in March and April of last year by the Crocus king, Mr. E. A. Bowles, entitled "The Fascination of the Crocus."

Hyacinths.—I have grown this year for the first time two Hyacinths to which I should like to draw attention. Excelsior, a pale lilac pink, with a rose-coloured stripe down the centre of each petal. It is *the* early bird among the Hyacinth tribe, and would get a good deal of admiration on this account alone, even if it were not very pleasing in itself. Mine were planted on October 1, were in full bloom on the last day of the Old Year, and they had had only ordinary cool greenhouse treatment. La Victoire, which was put into pots on the same day, followed into bloom just ten days later. It is a bright and taking shade of carmine, with the petals edged with a paler shade, after the fashion of Gertrude or Rosine. One valuable trait in its character is that it keeps its colour very well all through its life. The change from dark to grey and white is all right in humans; frequently it improves their looks. It is not so, however, in Hyacinths. With them in almost every case their last state is not so pleasing as their first. Excelsior and La Victoire are two excellent Hyacinths that can be recommended with confidence.

JOSEPH JACOB



CAMPANULA LACTIFLORA, A SPECIES WELL ADAPTED FOR THE HERBACEOUS BORDER.

CAMPANULA LACTIFLORA.

THIS noble plant is seen far too seldom in gardens. The accompanying illustration shows one root 8 feet high which was a mass of pale blue blossoms in July. The woody roots take some years to thoroughly establish themselves. Care has to be taken to carefully support the stems, which are hollow and easily damaged by wind and rain.

E. TESCHEMACHER.

PRIMULAS AS SEMI-AQUATICS.

ADMIRERS of the many lovely Primulas will do well to observe the liking of a considerable number of these charming flowers for water and the special suitability of some for ground which is occasionally flooded. By the margins of streams and ponds liable to flooding some Primulas flourish apace and give results unobtainable on dry soil. Thus, Primula Poissonii is much hardier in places where it is flooded in winter, and I know of gardens in which it is covered with water for a couple of months every winter and where its roots are moist all the year round. There it is simply splendid. Then P. rosea, well known as a moisture-lover, will thrive if covered in winter and occasionally flooded in summer so that its crowns are touched by the water. P. japonica and P. pulverulenta can flourish in the same conditions, and those who have not seen these Primulas in such places can form no idea of their great beauty when so grown.

S. A.

THE WATER GARDEN AT WOBURN PLACE.

THE illustrations on pages 90 and 91 represent views of the two ends of the lake or water-course at Woburn Place. This was made some six years ago, the original water-course being only a ditch some 2 feet wide by 1 foot deep, through which water ran during nine or ten months of the year, this really being only the drainings of the land some little distance away. To maintain a proper supply of water the whole year through, several thousand loads of gravel were taken out and the whole length of some 300 yards widened out and deepened, the bottoms and sides being concreted so as to hold water during the dry season, though during the last two years this precaution has been quite unnecessary, as the flow of water continued the whole summer through. It was stocked with rainbow trout, and these did very well in it for two or three seasons, some of the fish growing from about the size of sprats to some 3lb. in weight; but, unfortunately, an otter from the Thames found them out, and with her young practically cleared the whole of the fish, notwithstanding that every endeavour was made to shoot or trap these marauders.

As will be seen in the illustrations, rockeries have been built at the two ends, while various flowering trees and shrubs, Willows and Bamboos, have been planted on the banks to furnish them, also the whole length of the banks has been planted with spring-flowering bulbs, chiefly varieties of Narcissi,

which add very much to the effect in their season. Unfortunately, owing to the whole length of the stream being bordered by large Oaks, Yews, Acacias and other trees, many of the alpines will not flourish on the rockeries, so these have had to be planted with subjects that will stand plenty of overhead shade, and for this reason Bamboos, Polygonums, Spiræas, Gunneras, Primulas, Cyperus, Solomon's Seal, Hemerocallis, Iris, Funkias and many varieties of Ferns have been used; and though perhaps not proving so bright a rockery as where many of the more showy subjects can be used, it nevertheless forms a pleasing feature during the greater part of the year, and is certainly all the more interesting when one considers that it was practically a rubbish-tip.



THE LOWER END OF THE WATER GARDEN AT WOBURN PLACE.

Its greatest disadvantage from a horticulturist's point of view is that it is once or twice each year inundated with water, and this winter for three weeks it was entirely covered owing to the very extensive Thames floods, so that it is quite useless to try to grow anything other than what will stand plenty of shade in the summer and water in the winter. T. STEVENSON.

Woburn Place Gardens, Addlestone.

THE ROSE GARDEN.

THE PRUNING OF ROSES.

SOME growers prune certain varieties quite differently from others, but we must not forget that many Roses differ in their habit and growth according to the soil and position. By no means would I use the knife so early as used to be the case when we were dependent upon the hardiest Hybrid Perpetuals, Damask, Bourbons, Provence, Mosses and a few Tea-scented Roses for our display. Intercrossing, the use of several distinct stocks, and other things have greatly complicated the subject, and I feel that we more often use the knife too early than not.

Never allow a top eye of the Rose to point towards the middle of the plant, and commence pruning by cutting away all dead or frozen wood, thinning out superfluous growths from the centre and otherwise removing all that is not needed before doing anything more. There are some really good sécateurs on the market now, quite first-class compared with the old ones, which only possessed one cutting blade and invariably left sadly-bruised bark on the shoot. Still, I would prefer a sharp knife in the hands of a skilled person, although so few keep their knives sharp and clean enough to do the best work with them. Do not hurry at the job, but look twice and cut once if in the least doubt, and avoid undoing in a few seconds what it took the whole spring and summer to secure. This is more particularly necessary with plants upon walls or against any structure, also in the case of weeping standards and pillar Roses. Judicious pruning has much to do towards securing a well-balanced plant; besides, the effects of haste often last throughout the season.

It is a good and safe rule to prune Roses according to the extent and vigour of their growth. For instance, I would cut Duchess of Bedford, A. K. Williams, M. Noman and Souvenir d'Elise back to the last two or three sound eyes, while those of extra vigour need scarcely any cutting. In the latter case the longer and coarser shoots are the most valuable, provided they are ripened enough to pass through the winter. I cannot give the exceptions to this general rule, which should be ample for the beginner.

Much has been written about the dates to prune. March for the hardy Hybrid Perpetuals and early or mid-April for others are good average times, but much depends upon whether the plants are in a Southern or Northern locality. This fact and the weather or season should be borne in mind. The times I have given are suitable for the Midlands. A little later would be wise further North, or even a naturally cold position in the South.

Do not fear to thin out the shoots freely upon bushy and established plants, for much more new wood will be made; indeed, it is quite essential to good results, while if too crowded now they will only be more so later on. Newly-planted Roses are best if pruned quite hard during the first season, unless they are being turned out from pots, when the usual practice may be followed. It is this necessity for close pruning the first spring that sets me against the purchase of extra strong plants, only to cut away the wood. A smaller and not so highly fed bush will be sounder, and almost invariably prove more satisfactory in the end. It is no use purchasing climbers with extra long shoots, as are too often advertised, if we have to cut them away. After the plant has made good wood upon established roots it may be pruned slightly, and thus the full benefit of the long growth realised. Ramblers turned out from pots may be treated in the usual way and their present growths removed as soon as they have flowered. A very fair show is got during the first year in this way, but not so good as when the roots have had a chance to spread into a wider range of soil and food before being called upon for such a strain. A. P.

A GRAND OLD ROSE.

BEAUTIFUL though they be, we must not allow the wichuraiana and multiflora Roses to quite monopolise our arches and pillars, for there are some grand old varieties of other tribes that have not yet worn out their welcome to those who know them.

I am thinking now more especially of Blairii No. 2, a Rose of surpassing beauty in June, when it yields a wealth of its big blossoms, which are of the loveliest deep Maiden's Blush pink imaginable. The flowers are flattish, after the Camellia form, but the buds are as exquisitely formed as a Tea Rose. Indeed, by the "bloom" on the wood and the refined colouring I should say the Tea-scented or Chinese enters largely into its composition; in fact, it is termed a Hybrid Chinese, although by its non-perpetual character it proves it is more nearly related to the Provence or Gallica Roses. It is a fine variety for an east wall, succeeds admirably as a tall pillar, and for an arch or pergola it is extremely useful.

I have it growing as a big bush where plenty of space can be given it, and a fine picture it is when its semi-arching growths are covered with the fragrant blooms. Blairii No. 2 also makes a splendid standard, only one must isolate it well, for it makes a prodigious head of growth.

What became of Blairii No. 1 I do not know. It was raised by a Mr. Blair, who lived in North London and introduced the Rose about the year 1845. I think it pretty certain that these old Roses, or at least the best of them, will some day be revived, and perhaps we may even see our National Rose Society offering prizes for a collection of them.

I believe at the first exhibition the society ever held these old Roses comprised largely the exhibition, and it would be interesting to show the present-day public how we have advanced. Unfortunately for this object, most of them bloom in June, and would be over when the modern Roses were at their best; but I am persuaded we should endeavour to popularise these old Roses, or, rather, some of them, for they possess merits peculiarly their own, and appeal strongly to those who appreciate the Rose in its many and varied forms of fragrance and colour. P.

TREES AND SHRUBS.

SOME ATTRACTIVE SHRUBS IN SPRINGTIME.

AZARA INTEGRIFOLIA.—This charming hardy shrub, now in full bloom on a wall, deserves wider cultivation, for in addition to it being a delightful evergreen, it blossoms when outdoor flowers are scarce. It is sweetly scented, it commences to bloom about Christmas and continues well into February, is a native of Chili, and will grow in nearly any soil; but if enriched by a little good top-dressing annually it is much improved. At one time it was not considered advisable to give shrubs manure, but the majority of these flourish when assisted in this manner. It is a plant that is easily propagated either by layers or cuttings, which soon develop into good plants.

Azara microphylla.—This makes a charming succession, coming into flower about the time the former passes over. It has small, shining green leaves, and under the leaves are myriads of small yellow flowers, which are as deliciously scented as Vanilla. It grows very freely, and soon makes a good tree either on a wall or in the open, but is a beautiful plant on a wall near a window where its fragrance can be inhaled. It is freely propagated by cuttings or layers. Dibbled in a border with fine leaf-soil and sand, they soon root and quickly make nice plants. This plant is sometimes found under the name of Myrtophyllum chilense.

Skimmias.—These are very pretty and interesting at this season. The flowers are extremely sweet, and the berries are an object of beauty for many months. Skimmia japonica, introduced in 1853, grows about 3 feet high generally, but if grown well will even rise higher and make fine bushes. When planting it is well to plant a male among the berry-bearing or female bushes. S. Fortunei berries very freely, and during the autumn and winter they are very attractive. S. obovata is an improved form, and has more rotund leaves and larger berries than S. japonica; it is a most desirable plant. All these can be propagated by cuttings or layers, and root readily.

Erica lusitanica (*codonodes*).—This is one of the most beautiful of all Heaths, flowering at a time when very few others are in bloom, if we except E. carnea and E. lusitanica. It is much more hardy than some would have us believe. This plant has been flowering since Christmas, and will be likely to continue for another two whole months. We have several plants, 8 feet to 10 feet high, so full of flower that a bunch can easily be cut for decorative purposes without spoiling the tree. The flowers are white. We planted out some 500 a few years ago, interspersed with the sweet-smelling E. arborea, which flowers six weeks later. E. Veitchii, a hybrid between lusitanica and arborea, is a decided acquisition, and is easily raised from seed. Good plants may be grown in two or three years. Erica mediterania hybrida is an excellent variety, and carries its flowers all through the dull months; it is certainly one of the best Ericas for winter effect.

Leonardslee Gardens. W. A. COOK.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

BRUSSELS SPROUTS.—The vegetable-grower who does not require a constant succession of Brussels Sprouts over the longest possible period has yet to be born, for there is no member of the great Cabbage family that is more highly esteemed. In order to ensure the finest results it is imperative that the plants shall have a long season of growth, and this involves more than one sowing of seeds. The first ought to be made at once, and whether it shall be in boxes in a frame or on a warm border out of doors is a matter that must necessarily be decided by the conveniences of each case. Indoor sowing is popular, but it is doubtful if real advantage is derived from it in those gardens where a warm south border of good soil is at command. However, no matter what the precise procedure may be in regard to place, there can be no question as to the importance of sowing thinly, thinning early, and bringing along the plants hardily and sturdily. Although all growers do not do so, it is well worth the trouble to incorporate with the soil in the seed-bed some flaky material, such as leaf-mould or refuse manure, to which the roots of the young plants will cling, since this enables them easily and quickly to be transplanted with a good ball of soil, which is an obvious advantage, as there is then absolutely no cessation of progress.

BROAD BEANS.—In early gardens the first sowing will already have been made, but in the majority it is seldom feasible to commence before the last week of the present month or the first week of March. In all instances a variety of the Long-pod section will have been chosen, the Windsors being reserved for the middle to the end of the last-named month. It is customary to sow in double lines, and the seeds in each ought to be set 3 inches asunder on a firm, level base, the rows being at least 3 feet apart, and preferably rather more. All growers desire to achieve the finest results, and to this end it is essential that the soil shall have been deeply and thoroughly cultivated and generously enriched with the best natural manure that is at command. The trenches prepared for the reception of the seeds should be 3 inches deep.

JERUSALEM ARTICHOKES.—For some unaccountable reason Jerusalem Artichokes are not highly esteemed by the amateur and cottage gardeners of this country, the majority of whom appear to grow them merely for the sake of the admirable screen which the vigorous plants will form between the house and some objectionable corner of the garden. This is very well as far as it goes; but if we can have the screen and an excellent crop at the same time, so much the better, and, fortunately, there is no reason against it. The necessary points to keep in view are proper working of the soil to its utmost depth, the judicious, but by no means excessive, addition of rotted manure, and the planting of sound, healthy sets of the white or purple, according to fancy. The former is the better of the two, especially if that selected by Mr. George Wythes, V.M.H., many years ago is secured. Growers may be assured that well-cooked tubers will form a most welcome change of vegetable during the winter.

EARLY TURNIPS.—These are always in demand, but, unfortunately, the finest varieties for the production of early bulbs are not long-standers; on the contrary, they soon become hard, bitter and woody. This should impress upon cultivators the desirability of sowing in small quantities at frequent intervals, since this will ensure a constant supply of beautifully sweet roots, provided that one of the Extra Early Milan or similar group is selected. The site must be in perfect mechanical condition and in thoroughly good heart; but the utmost care must be exercised in the use of manure, which, if fresh and near the bulbs, will almost assuredly encourage forking and fanging

SOWING PEAS.—An excellent variety for March sowing is Sutton's Early Giant, which is still unexcelled as a reliable cropper and for its splendid flavour. H. J.



THE UPPER OR INLET END OF THE SAME GARDEN. (*See page* 89.)

EARLY SPINACH IN SPRING.

AUTUMN-SOWN Spinach in many gardens fails from various causes. Sudden changes of weather will cause losses, and the effect of severe weather is greater when the plant is large, as the succulent leafage is soon injured. My note more concerns how to make losses good as early in the season as possible, and to do this it is well to grow an early form of the large-leaved variety, of which Victoria is the type. This vegetable I always found was in great demand in the late spring. With such losses as referred to above it was necessary to make them good, and it is really a simple matter. Few plants grow more quickly and germinate more rapidly, so that a crop is soon secured. At the same time, I have often observed that a crop of Spinach in a field or market-garden, with far less attention in the shape of food, will pull through a severe winter when a garden crop is quite destroyed. Doubtless in many cases the garden crop is too well done at the start; it makes a rapid growth which is most susceptible to our variable winters, whereas the field crop is hardier and, having more exposure, resists sudden changes. Having to supply this plant daily, I found it a good plan to make a later sowing than is often advised, viz., in September, and in an open position this was often very little injured, while the better plant, or early sowing, was quite destroyed, though the seedlings late in the year were much smaller. As soon as the sun gets more power in February growth is active, and it gives a good return in April and May, at a time of year when the crop is much appreciated. This plant was treated the reverse of an ordinary autumn crop. It was given no food at the time of sowing the seed other than liberal dressings of burnt garden refuse or wood-ashes. Wireworm is one of the worst pests to contend with; it insidiously bores into the tap root, which soon causes the plant to droop and become worthless. For this I know of no better remedy than gas-lime spread on the land in autumn, then dug in deeply in winter. Spinach sown both in pots and boxes in heat and planted out, or sown thinly in boxes and grown under glass in cold frames, may be had in from six to eight weeks. A ready way to get an early crop is to put a few seeds in rich friable soil in 4½-inch pots in frames. The seedlings will make nice material to plant out a month later, and there will be a gain of a month over the crop sown in March in the open. I have often sown seed in boxes and transferred the seedlings to a warm border early in April. Few plants carefully lifted with a ball of earth and roots transplant more readily, and though I prefer pots, as then there is no fear of the roots being injured, half-a-dozen seeds in a 4½-inch pot will suffice. I have frequently planted seedlings, raised under glass, in trenches recently cleared of Celery, and by giving a little shelter at night for a short time the growth is soon active.

G. WYTHES.

A NEW MAINCROP POTATO.

AMONG the new maincrop Potatoes which have been introduced during the last few years, the variety shown in the accompanying illustration is, I think, certain to occupy a foremost position. I grew it last year in conjunction with several other novelties, and was much pleased with the way it behaved. It is a white, pebble-shaped variety raised and introduced by Messrs. Webb and Sons of Stourbridge and named by them New Provider. The tubers have shallow eyes and a beautiful clear skin, and as an exhibition variety we may expect to hear much of it in future. It is also an excellent table Potato, the tubers at the end of January possessing a most pleasing flavour and floury texture. The haulm is of moderate height and branching character, and the variety last year withstood disease well. The ware tubers shown in the illustration amounted to three pecks, and were the result of planting 3lb. of sets in the spring of last year.

H.



A NEW WHITE MAINCROP POTATO: WEBB'S PROVIDER.

THE TOWN GARDEN.

EARLY HARDY FLOWERS.—The early flowers of the year—true harbingers of spring—of whatever class, are ever welcomed by the garden-lover because of the promise their coming affords of the rich harvest soon to be reaped. Thus the flowering of the Winter Aconite, Mezereon, Wych Hazel, Snowdrop, Snowflake or Crocus may each contain an eloquent, if silent, message for the gardener, a message full of the promise of the wealth of blossom that is so near at hand. Already there are not wanting signs of an early renewal of life in the vegetable world, and presently—indeed, very soon—given genial showers and sun warmth, the days and weeks will be crowded with many of the earlier flowers of the year. Just now, in addition to some of those named, there are to be seen such Saxifrages as apiculata, yellow; burseriana major, white; the early Coum Cyclamen; the rich violet or royal purple of Iris reticulata; the shades of yellow, sulphur, primrose and cream as represented in the lovely and early-flowering Bayonne Daffodil, Narcissus pallidus præcox, to say nothing of the golden cups of Adonis amurensis, many Primroses, Snow Glories and similar kinds.

HARDY ROCK PLANTS.—There are, of course, hundreds of plants to which this phrase might well apply, but one's thoughts at the moment are in the direction of the most enduring of such things, and those in particular which do not so much object to town gardens and smoke-laden areas. That there are certain plants which appear to be more or less indifferent to town life there is no doubt, though it must not be concluded that they are just as good as they would be in purer country air. Some of the best of these plants are the Aubrietias, of which Dr. Mules, tauricola, Prichard's A1 and Souvenir de William Ingram are a selection. Others are Saxifraga sancta, S. apiculata, S. Aizoon rosea, S. A. rosularis, S. Guildford Seedling, Achillea tomentosa, Phlox frondosa, Corydalis lutea, Armeria alpina, A. Cephalotes rubra, Campanula muralis, C. garganica, C. pumila, C. p. alba, Thymus Serpyllum coccineum, T. lanuginosus, Iberis correafolia, I. sempervirens, I. Little Gem, Veronica prostrata, Adonis vernalis and A. amurensis, being both hardy and free-flowering. The selection is made studiously because of their success in ordinary soils, as also their partial indifference to smoke and fogs.

WHERE TO PLANT THEM.—Beside the pathway leading to the front door of many a villa residence, or, again, immediately below the bay window fronting the "mansion" in question, ideal spots often occur, and here, with the aid of a few stones—the amateur often considers himself passing rich in the possession of a few clinkers or brickbats, but if these are made permissible I beg him to refrain from plastering oyster or other shells upon them with cement, so hideous is the effect, pretty effects may be often secured.

SUITABLE PROVISION FOR THE PLANT.—The Campanulas, Saxifrages, Iberis, Aubrietias and Phloxes named are of spreading habit, and require spaces of not less than 1 foot across in which to develop, and given these with a few inches of gritty soil, *i.e.*, garden soil mingled with sand, road grit or old mortar rubbish, there should remain but little room for failure. Well-established plants should be secured from any of the hardy plant dealers advertising in THE GARDEN and be planted in their places without delay.

S. N. N.

GARDENING FOR BEGINNERS.

PLANTING RANUNCULUSES AND ANEMONES.

COMPARATIVELY few lovers of the hardy flower garden seem to realise the beauty of these bulbous-rooted plants; and in the hope of encouraging beginners to take up their culture, directions for planting are here given in simple detail. The Ranunculus is known by the common names of Crowfoot, Buttercup,



1.—RANUNCULUSES PLANTED, CLAW-SIDE DOWNWARDS, IN ROWS OR CLUMPS.

Fair Maids of France and Fair Maids of Kent. The French forms are sometimes described as Giant Ranunculuses. These bedding Ranunculuses run through every imaginable tone of yellow and orange to coppery reds and crimson. Their period of flowering naturally varies according to the time at which the tubers are planted, but, generally speaking, the plants are at their best in May or early June.

Planting may be done in autumn or in the spring. October and November are the months for autumn planting, and the end of February for planting in the spring. These remarks will, therefore, be most opportune, as the beginner may purchase his tubers forthwith and plant them at once. The Persian forms may be planted at any time between February and April.

The Ranunculus delights in light, rich and fairly moist soil. Heavy soils should be deeply dug and left exposed to the weather as long as possible before planting, and there should be incorporated at the time of digging leaves, garden litter and any material that will tend to lighten soil of heavy texture. Light rich soil is greatly benefited by a good dressing of well-rotted cow-manure and leaf-mould, and these materials should be well worked into the ordinary soil of the garden. Although the Ranunculuses do well in good, open positions, better results are usually obtained when they are planted in beds and borders that are partially shaded.

Planting may be done in a variety of ways. The tubers may be planted in long individual rows as margins to beds and borders, or in small colonies or irregular patches in the hardy border, where they pleasingly associate with other subjects in the early summer. Beds may be exclusively planted with the Ranunculus, and in this way they are most striking and attractive. When planted in rows, drills 2 inches deep should be drawn, and the roots, claw-side downwards, should be adjusted in position 3 inches asunder. Subsequent to the planting cover the tubers with soil that is fine and friable. It is a good plan to mulch the quarters planted with Ranunculuses in April, using Cocoanut fibre refuse or rotten manure that has been passed through a coarse sieve. Copious waterings should be given during dry weather in the spring and summer. The tubers should be lifted as soon as the leaves fade and turn yellow; this invariably takes place in the earlier half of July. They should then be dried in the sun, and subsequently be stored away in sand in a cool room or cellar until planting-time again comes round. Fig. 1 shows the method of planting in single rows and the way in which to plant a small colony.

The second subject under this heading, the Anemone, popularly known as the Windflower, is another hardy plant worthy of more attention. It may be news to some readers that the Poppy Anemone was introduced to this country from Southern Europe so long ago as the close of the sixteenth century, and gardens have been enriched and beautified by its presence continuously since that period. Both Dutch and French gardeners have contributed to the improvement of the flower and, in conjunction with some of our older florists, produced a charming variety of colours and double forms. The Dutch varieties are beautiful in the spring, and are grown in this country fairly extensively. The de Caen Anemones grown by the French are also cultivated freely in the United Kingdom. They are sometimes described as the Peacock Anemones. The de Caen Anemones are valued because of their diverse colourings, the blooms being marked with many colours of pleasing hue. The singles are very handsome flowers, many of them measuring fully 3 inches in diameter. There are also Chrysanthemum flowered Poppy Anemones of French origin, represented by double flowers having incurved florets. The charm of the whole thing is that the Poppy Anemones are quite hardy.

Like the Ranunculus, the Anemones belonging to the tuberous-rooted species may be planted in October; some growers plant as early as September. The same kinds, if more convenient, may be planted in February; this gives the beginner the opportunity of planting the Poppy Anemones in the immediate future. A shady quarter of the garden should be allocated to them, otherwise the warm weather, together with the sun, may cause the blossoms to suffer unduly when the plants come into flower. Soil similar to that recommended for the Ranunculus should be accorded the Anemones, but the tubers should be planted 3 inches deep and 6 inches apart. I must admit a special liking for small beds of this one subject, or, failing these, small colonies or irregular patches in the hardy border. When planted in this manner they are most attractive. A number of tubers of the Poppy Anemone de Caen, planted in a small bed, is shown in Fig. 2. Note the curious formation of the tubers, and when they are planted see that the crown is uppermost. The beautiful St. Brigid Anemones may be treated in precisely the same way, and most readers doubtless have seen this strain exhibited at the leading shows throughout the country in the early summer. Lift the plants when the flowers fade and the leaves turn yellow, drying off and storing in a cool shed or room as advised for the Ranunculus.

D. B. CRANE.



2.—POPPY ANEMONES ARE BEST WHEN PLANTED IN SMALL BEDS BY THEMSELVES.

POTTING SOIL FOR ROSES.

A GOOD deal of stress is often laid upon the need Roses have of certain soils, and more especially when growing in pots. In the latter case we can generally procure almost any mixture advised, but I want to call attention to some of the most simple and yet effective composts that can be had in almost any garden. In the first place, Roses are by no means so particular as some seem to imagine. So long as the compost consists of fairly rich and stiff loam, helped by suitable manures, many mixtures are equally good. One point not sufficiently borne in mind is to have the compost less finely riddled than is often the case. Then, again, there is no need for the excessive and elaborate drainage which sometimes takes up a considerable amount of room and is absolutely devoid of plant food. One or two sound crocks inverted over the drainage holes are sufficient, it being far better to

add a few half-inch and quarter-inch bones for the remainder instead of a quantity of smaller crocks or ashes. Neither of the last two provides food, whereas the bones are a steady, safe and lasting manure, at the same time providing the necessary drainage. Often, too, Roses are not potted firmly enough. Use a coarser compost and see that it is firm, and you will have better results. Stiff turfy loam is excellent as the main ingredient; but it need not be fibrous turf so much as is the case with Ferns. So long as it is stiff or fairly close we can have it in suitable condition by using cow-manure and quarter-inch bones. A little—very little—sharp sand helps to keep such a compost open, but bones answer the same purpose, and, as before noted, are a valuable food product at the same time So long as it is a good mixture of not too light and porous a nature, Roses will thrive. Much of the after-result depends upon the judicious use of liquid stimulants when the soil is full of roots. If these are used carelessly, any compost will suffer, no matter how well it may have been prepared. The same mixture that is used for repotting will answer equally well for top-dressing, an operation that consists of removing some of the old soil from the surface of the roots and replacing it with an equal quantity of new. A. P.

NEW PLANTS.

ORCHIDS were again much in evidence among the new plants brought before the Royal Horticultural Society on February 14.

A first-class certificate was awarded to

Brasso-Cattleya Senateur de Bash, shown by Messrs. Theodore Pauwels and Co., Meirelbeke, near Ghent, Belgium. The parentage of this beautiful compound hybrid was given as Brasso-Cattleya Mossiæ × Brassavola digbyana × Brasso-Cattleya Mrs. Leemann. The plant shown carried one flower only. The dominating colour of the flower is bright rosy pink. The broad lip, of perfect form, is handsomely frilled, and the throat is tinted with gold interspersed with veins of crimson.

Each of the following received an award of merit:

Cymbidium lawrenceanum.—This was also shown by Messrs. Theodore Pauwels and Co., Ghent. It is a hybrid between C. insignis and C. lowianum concolor. The plant exhibited carried a solitary flower of a very pleasing colour. The perianth is buff tinted and edged deep pink. The lip is pale yellow with a bright crimson apex.

Cypripedium aureum laekenense.—A very bold and attractive variety shown by Mr. E. V. Low, Hayward's Heath. Parentage: C. Sallieri hyeanum × spicerianum. The dorsal sepal is about 2½ inches across and surrounded by a broad white margin; the base is emerald green, covered with minute chocolate spots. The wings and lip are inclined to yellow blended with greenish brown.

Cypripedium Carola.—Quite a distinct variety, of splendid form. Parentage: C. thompsonianum magnificum × C. Euryades splendens. The dorsal sepal is very broad, of a dark shade, with a wide margin of white and chocolate markings in the centre. The petals are waved and of a ruddy brown, tinted with green at their extremities. Shown by Messrs. Hassall and Co., Southgate, N.

Carnation Coronation.—This is quite a good addition to the Perpetual-flowering class, and belongs to the cerise-pink coloured set. The exact shade is not easy to determine, though for all practical purposes it may be accepted as intermediate between Winsor and Aristocrat. A flower above average size, well formed and poised on gracefully inclining stems. The variety has but little scent. Exhibited by Mr. B. Bell, Guernsey.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Lychnis (*C. S. Booth*).—Lychnis Cœli-rosa is the so-called Rose of Heaven, and is synonymous with Viscaria oculata. The plant you refer to as Lychnis cardinalis is a variety of this latter plant, and will be found in seedsmen's lists under Viscaria cardinalis. The plants reach to 1 foot in height, are of annual duration, natives of Southern Europe, and easily raised from seeds sown in the open ground in March. There is a considerable range of colour—crimson, white, rose, blue, pink, &c. We regret we wrongly interpreted your letter, which has been mislaid; hence we give early prominence to this note to save further confusion.

Crown Imperials (*Hobby*).—These early-growing, bulbous-rooted subjects are not likely to succeed in the dry mound you refer to in the vicinity of the Elms. That those you have hitherto planted have not appeared must have been due either to very weak or to defective roots. To be successful with them the bulbs should be planted 6 inches deep not later than August, for they prefer moisture rather than drought during the season of growth. Only bulbs of large size should be planted. Good flowering bulbs are of large Orange size, and such as these push their growths quite early in the year, usually about February. Small bulbs not of flowering size frequently, if late planted, make no appearance in the spring following planting, though they grow a year later, as a rule. Considerable harm is done to this class of bulb by late planting and by the long period of enforced drying-off which is responsible for it.

Growing Violets (*W. L.*).—The cultivation of the Violet is simple enough, and may be undertaken at any time during the coming weeks. The freshly-rooted runners make the best plants, and should be planted out in well-cultivated soil about the end of March. If you are intending the plants for permanent cultivation in the open, a position sheltered from north and east should be chosen, preferably where a rather high wall or fence exists. An evergreen sheltering fence would do quite well. The young plants should be arranged about 1 foot apart and the ground kept free from weeds throughout the season. During winter, should you require flowers at that season, shelter should be afforded the plants. It will be best now to thoroughly dig and manure the ground, turning it up roughly, and then fork it over a week or so before planting. The best plants are those known as single crowns, and it is important that any runners made during the season be removed forthwith.

Irish Ivy on a rough-cast wall (*Veronica*).—You will probably find a difficulty in getting your Ivy to cling to the rough-cast wall you speak about. The last chance lies in cutting it down as you suggest. Failing the Ivy proving satisfactory, we advise you to put in shrubby plants whose main branches could be secured to the wall, and the side branches be kept short by frequent pruning. Such shrubs as Ceanothus rigidus, C. thyrsiflorus, Cotoneaster microphylla, Choisya ternata, Escallonia macrantha and Garrya elliptica would be suitable. In many respects these shrubs would suit the position better than Ivy, for they are of a more interesting character and have the advantage of producing showy flowers. Another way of encouraging Ivy to cling is to nail strips of wood on the wall to give it a start.

Primula frondosa and Sutherlandia frutescens (*H. C. R.*).—The former is a mountain Primula, native of the Balkans. It is nearly related to the well-known Primula farinosa, but differs therefrom in the leaves being wide and very gradually diminishing to the petiole. The whole plant is stouter and more mealy than P. farinosa. The leaves of P. frondosa are widely spathulate in shape, and the flowers are of a bluish pink. Failures in its culture are by no means infrequent, but M. Correvon of Geneva says it is of easy culture there treated as a marsh plant. Plenty of moisture and full exposure to the sun, as a rule, suit it best. Sutherlandia frutescens is known as the Bladder Senna of the Cape, and is a South African shrub belonging to the Natural Order Leguminosæ. It forms a specimen of upright growth, clothed with ornamental pinnate leaves. The flowers, borne in axillary racemes, are bright red, and bear a certain resemblance to those of the New Zealand Clianthus puniceus. These flowers are succeeded by curious inflated seed-pods of a papery texture suggestive of those of the Bladder Senna (Colutea); indeed, an old name for this Sutherlandia is Colutea frutescens. It was introduced from South Africa as long ago as 1638, and succeeds with ordinary greenhouse treatment. Of late years it has been employed in some of the London parks for summer bedding.

THE GREENHOUSE.

Injury to Pelargonium leaves (*W. F.*).—The Pelargonium leaves are attacked by a fungus which has of late years given a good deal of trouble in some places. Spraying with Condy's Fluid is often effectual in checking its ravages, or other fungicides may be used, but some of them leave an unsightly deposit. It may also be pointed out that the more light, sunshine and air are admitted to these Pelargoniums, the less liable are they to suffer from fungus troubles. On the receipt of your letter we went to look over a collection of these plants, and found only one variety showing any trace of the disease which has attacked your plants. Singularly enough, it was, just as in your case, the variety J. T. Hamilton, so that one is forced to the conclusion that this particular variety is especially liable to this trouble. However, spraying with Condy's Fluid, and the increased amount of sunshine which allows more air to be given, will, we should say, put matters right.

How to grow Cotton Plants (*C. S.*).—In order to cultivate the Cotton successfully a brisk moist heat is necessary. The seed should be sown towards the end of February or the early part of March and placed in a structure of 55° to 60° during the night, rising 10° to 15° in the daytime. The seed may be sown singly in small pots or several together in a pot or pan. In this latter case the seedlings should be potted off singly into small pots as soon as they are large enough and still kept in the same temperature. For the sowing of the seed and the first potting a mixture of equal parts of loam and leaf-mould or peat, with a good dash of sand, will form a suitable compost. When sufficiently advanced, the young plants may be shifted into pots 4 inches to 4½ inches in diameter, and from these they can later on be put into the pots in which they are to flower and fruit. The Cotton may be successfully grown in pots from 6 inches to 8 inches in diameter. For the later pottings the soil may consist of two parts fibrous loam to one part leaf-mould and a liberal sprinkling of sand. If there is any good dry cow-manure available, a little of it may with advantage be mixed with the soil; but if not, the necessary stimulant may be supplied in the shape of liquid manure, to be given when the roots have quite taken possession of the soil after their final potting. In the summer but little fire-heat will be needed, and from the flowering period the plants should be

but little, if at all, shaded from the sun. Grown in this way, the pods laden with Cotton form during the latter part of the summer a very interesting feature.

Indoor Ferns (*A. A.*).—The idea of green glass for Ferns is now completely exploded, it having been conclusively proved that all Ferns generally grown for decorative purposes (Maidenhairs included) do far better under clear glass than when it is green. Of course, during the summer the Ferns will need to be shaded from the sun's rays, either by means of permanent shading on the glass or by blinds, but in winter they like all the light and sunshine possible. Maidenhair Ferns should not be watered overhead in winter, as if this is done it often leads to the fronds becoming discoloured and the beauty of the plant for the time being spoilt. In order to keep Maidenhair Ferns in good condition during the winter, a minimum night temperature of 50°, rising 10° or so during bright days, should be given them. Even with care many of the fronds are apt to go shabby in the winter, for which reason some cultivators treat them as deciduous subjects—that is to say, early in the year, before the new fronds are pushed up, all the old ones are cut off, in order that there shall be no check to the development of the new ones. In the case of a house of Maidenhair Ferns that are not in good condition, the better plan will be, early in February, to look over the plants and cut off all discoloured fronds. If this is done to the extent of cutting all the old ones off it does not matter, but that will, of course, depend upon their condition. Then as soon as the young fronds commence to push up, which will not be long, the plants may be repotted. A suitable compost may be made up of equal parts of good yellow loam and leaf-mould or peat, with a liberal sprinkling, say, nearly half a pint, of silver sand. The size of the pots employed will depend altogether upon the condition the plants are in, as probably the roots are not in a good state, in which case, when the plant is turned out of its pot and as much of the old and exhausted soil removed as can be done without greatly injuring the roots, it may be found that it can be again put into the same sized pot; if not, a size larger must be chosen. In any case, the pots employed must be quite clean and effectually drained. In potting, the soil should be pressed down evenly and made moderately firm. After potting, the watering must be carefully done, for although these Ferns need plenty of water when growing freely, they must not be given too much at first, otherwise the soil will turn sour before the roots take possession thereof. At the same time, atmospheric moisture is very conducive to the welfare of the plants, and towards the end of this month, given mild weather, they can with advantage be sprinkled overhead. As the young fronds push up, the plants will need to be shaded from the brightest of the sun's rays, and as they gain power more shading will, of course, become necessary. Woodlice, tiny slugs and other pests are very fond of the young fronds, and must be looked after.

FRUIT GARDEN.

Brown rot of Apples (*Veronica*).—This is caused by the fungus Monilia fructigena (also called Sclerotinia fructigena). The fungus not only attacks the fruits, but the young shoots and leaves, and even the flowers. In this country the mycelium of the fungus appears to hibernate on the shoots, where in spring it forms velvety patches covered with myriads of spores which lead to infection of all parts of the tree. The resting fungus is also present on the affected fruits left hanging on the tree or lying on the ground. All attacked fruits should be collected and destroyed, and the tree should be drenched during winter with a solution of 1lb. of copper sulphate in 25 gallons of water. Dead and diseased shoots and branches should also be removed and destroyed during the winter. In spring, as soon as the buds burst, a spraying with Bordeaux mixture (3lb. copper sulphate, 2lb. quicklime, 40 gallons of water) should be made, and another should follow as soon as the petals fall. This treatment is the same as should be followed for Apple scab and bitter rot, and where diseases of this nature are prevalent it would pay if it were made a routine practice.

Bryanston Green Gage Plum in cold greenhouse not setting its fruit (*Greengage*).—The failure of your tree to produce a crop of fruit may be due to one cause or a combination of causes. It is evident that the flowers were improperly fertilised. This may be due to the absence of sufficient pollen on the anthers of the flowers, or to the weakness generally of the flowers themselves in consequence of their over-abundance. It may have been due to a too high temperature and insufficient ventilation while the tree was in bloom. You must remember that when these Plums are in bloom out of doors the trees are often subjected to 4° or 5° of frost and no harm follows, so bear in mind to ventilate freely, and do not excite the tree unduly with too much warmth while it is in bloom. Go over the blossom of the tree at midday when it is dry with a rabbit's tail tied to a stick, and rub the blooms over very gently in order to be sure of the effective distribution of the pollen, so that it may come in contact with the stigma of the flower and fertilisation take place. Give your tree a good soaking of weak manure immediately. That from the stable or the farmyard is the best. In the absence of this, dissolve a good handful of Peruvian Guano in three gallons of water. Do not be afraid to give it too much. You might reduce the blossom-buds on a spur to four, rubbing off the weakest and smallest. You must not thin the fruit until stoning-time is past, as the tree often casts off much of its fruit during that period. Afterwards, if a heavy crop is left, it will be an advantage to thin out some of the smallest of the Plums. Place a mulch of rotten manure 3 inches deep on the surface of the soil over the roots of the trees as far as they extend. The spur system is the best suited to the Plum, either on a wall or in the open.

Pear trees blooming freely, but failing to set fruit (*Ortolan*). — The fault, we think, lies in the constitution of the flowers, and especially in the absence of sufficient pollen on the anthers, resulting in the imperfect fertilisation of the blossom. The absence of lime in your soil is, no doubt, partly responsible for this, as is also, we think, the depth of your sandy loam, encouraging as it does the roots to delve deeply for moisture and food. Deeply-placed roots are inimical to the formation of healthy, strong flower-buds. You do not mention the age or size of your trees, but, presuming they are from ten to fifteen years old, we should apply to each tree a peck of quicklime, spreading it over the surface of the ground as far as the roots extend, also half a gallon of bone-meal, spreading it in the same way, and then forking the lime and bone into the soil 4 inches deep, afterwards giving each tree a good watering with manure-water from the stable or cowyard. This water and the bone-meal will enrich the surface soil considerably, and the addition, after the watering is over, of a top-dressing of rich, rotten manure on the surface of the soil over the roots 3 inches deep, will be the means of attracting a large number of small fibrous roots to the surface, and these in due course, by their influence, will help the formation of stronger and more fruitful flowers. The fertilisation of the flowers may be greatly helped by gently tapping the branches of the trees with a small stick or the hand on a dry, bright day while they are in flower. This helps the better distribution of the pollen and its contact with the stigmas of the flowers.

MISCELLANEOUS.

The pruning of newly-planted shrubs (*E. S. L.*).—Cornus Spaethii will not require pruning next year; neither will Spiræa arguta, Berberis purpurea or Weigela rosea variety. Tamarix æstivalis may be cut back to within four or five buds of the base of last year's wood, and Hypericum moserianum should be thinned out and have the remaining branches cut about halfway back.

Shrubs for a low wall (*A Constant Subscriber*).—You may certainly plant shrubs of the character you suggest against your low wall—Choisya ternata, Olearia macrodonta, O. stellulata, Myrtus communis, Ceanothus rigidus, C. thyrsiflorus, Escallonia macrantha or any shrub which appears to be a little tender with you. It is probable that the shrubs will prove more successful than the Roses, though it would not be a bad idea to include a Rose or two among the other things.

Rhododendron flowering in December (*G. F.*). It is not an uncommon event for some of the Rhododendrons, such as R. nobleanum and allied kinds, to open their flowers in December, especially after a mild autumn. We have known R. nobleanum as far North as Lancashire to open some of its flowers during November, December and January, while normally it blossoms in that county late in March. A variety named Harrisii was sent out by Mr. J. Harris, nurseryman, of Blackpill, Swansea, a few years ago which regularly opens many of its flowers during late autumn. In some of the milder parts of Cornwall certain Rhododendrons may be found in flower at almost any period during late autumn, winter and spring.

Clover patches on lawn (*Bridport*).—You had better remove the Clover patches from your tennis lawn and make up the deficiency with good turf. As the grass is poor, we should advise you to give it a light dressing of well-rotted manure now and a heavier one next autumn. In showery weather in April a light dressing of bone-dust may be applied, and a little later on a dressing of soot if the weather is wet. This, however, is optional. An application of sea sand will tend to improve the surface and encourage the finer grasses. It is a good plan to mow the grass with a machine without a collecting-box, and to mow frequently—twice a week if possible. Should weeds appear, however, the grass-box must be put on when there is any fear of distributing weed seeds without it.

Pruning Lilacs and other shrubs (*Cumbrian*).—Lilacs do not require very severe pruning unless they are becoming overgrown or are forming a lot of weak wood which does not bear flowers. Sucker growths from the bottom should be removed each year, for they take a great deal of nourishment from the bushes. Plants which have grown too tall may be headed back after they have flowered, and in the case of specimens which have formed a lot of weak wood, thinning out will do good. The reduction of the young shoots as they appear is also a good idea when the plants are weak; it, however, should be accompanied with a top-dressing of rotten manure, for such plants are growing in impoverished soil. Deutzias and Philadelphuses may be divided into two sets—the tall-growing sorts and the dwarf kinds. The large-growing species may be thinned out every three or four years, taking care to remove the worn-out wood right to the base; but the dwarf kinds, such as D. gracilis and P. Lemoinei, may be pruned every year as soon as the flowers are over. All the flowering wood must be cut right away to make room for young basal growths, from which the following year's flowers may be expected. As a rule, the young shoots will be starting at the time when the old ones have to be removed. Should the plants not be very vigorous, a few old branches which seem strong should be left and cut back about halfway. Spiræas may be divided into two groups for the purposes of pruning. Those which blossom in spring require very little pruning except an occasional cutting back after the flowers have faded. That, however, is only necessary when the bushes are outgrowing their positions. Spring-flowering kinds are represented by S. arguta, S. Van Houttei and S. Thunbergii. The sorts which blossom during summer and early autumn require fairly severe pruning and thinning out in February. Cut the strong shoots back about halfway and cut the weak shoots clean out. These kinds are represented by such species as S. japonica, S. Menziesii, S. salicifolia and S. Douglasii. We know of no firm which makes a speciality of wild plants and seeds, but alpine plants may be obtained from any of the firms who advertise in THE GARDEN, such as Messrs. Barr and Sons, King Street Covent Garden, W.C.; Mr. A. Perry, Hardy Plant Farm, Enfield, Middlesex; and Mr. Reuthe, Keston, Kent.

RAISING SINGLE DAHLIAS FROM SEEDS.

THE flowers of single Dahlias are borne on long stems and are very useful for filling vases. Furthermore, they have a light, graceful appearance and are easily arranged; the colours are varied and beautiful. These Dahlias are extremely free-flowering and are especially suitable for cutting and placing in long trumpet vases. Nearly all the blooms come quite free of the foliage of the plants, and so have a very charming effect in the flower garden. I well remember how useful single Dahlias were twenty-five years ago, when they were extensively grown in many gardens. At that time many cultivators grew a number of plants in rows, forming large groups, so that some temporary coverings could be put over them in the autumn to preserve the flowers from early frosts; and the blossoms were highly appreciated when used for the embellishment of the dwelling-rooms.

The seeds should be sown in pots or pans filled with loam and leaf-soil in equal proportions, with sufficient sand added to make it all quite porous. Towards the end of February or early in March will be early enough for the sowing of the seeds, as the resultant seedlings must not be grown for a long period in a heated structure. Cool frames from which late frosts can be excluded are the most suitable for the accommodation of the plants after they have been transplanted once.

Drop the seeds about 1 inch apart on the surface of the prepared soil, and cover them with a quarter of an inch of fine soil. As even the first leaves are fairly large, ample space must be allowed for proper development. Place the seed pots or pans in a warm frame (on a hot-bed for preference) or in a warm greenhouse. Directly the young seedlings appear, they must be arranged on shelves, if they are in a greenhouse, near the roof glass to keep them sturdy. Do not force the growth by subjecting them to a high temperature. Transplant the seedlings in boxes in a similar compost, but one in which some well-rotted manure has been incorporated. Put them out 3 inches apart, still keep the plants near the glass, and give more ventilation, especially on warm days.

The next move must be to small, deep flower-pots, and at this stage frame treatment must be the rule. It is, in every way, better to have the young plants in pots, when of suitable size, than in boxes, as they can be transplanted so much better from the pots. The soil in the borders must be made moderately rich and dug to a depth of at least 2 feet. If light, make the soil firm when the Dahlias are planted; if of a retentive nature, do not firm the soil, but allow it to settle down

gradually. Avoid very deep planting and be sure to place the stakes in position early; they ought to be put in at the same time as the Dahlias are planted. Single specimens of the latter look well in the centres of flower-beds, and, of course, they may fill whole beds, be planted in rows and clumps, and also at the back of herbaceous borders. It must not be forgotten that slugs are fond of these plants, and while the latter are young they are often eaten off just above the soil-level. B.

OBITUARY.

CHARLES FOSTER.

By the all too early and lamented death of this comparatively young but most able and estimable man and gardener horticulture is to-day so much the poorer. That Mr. Foster was an exceptional gardener for one so comparatively young is certain; indeed, those who knew him best and were most familiar with his inner self appraised him as a future high cultivator and an eminent horticultural authority. Placed both at Reading and at Sutton Green in positions of exceptional trust and responsibility, he nobly justified himself in the estimation of all who trusted him, for, while always impartial, he was as honest and upright in all his dealings as a good man well can be. Born in 1868 at Tallygarm in Wales, where his father was an esteemed gardener, he has told us that he got little schooling and was set to work while a mere child. That fact serves to show how splendidly he later in life became a well if self educated man, as also practically a self-made one. After spending some earlier years in his father's garden, he came as a journeyman to the gardens of the late Mr. Smee at Hackbridge, Surrey, where, under Mr. Cummings, he gathered much useful experience. From there he passed direct to Dowlais in Wales as head-gardener, and thence later to Aberpergwm. It was while there he brought to one of the great Shrewsbury exhibitions a superb collection of vegetables which won the Sutton Cup. Later he removed to Doddington Hall, Lincolnshire, and still later took charge of Lord Stradbroke's gardens at Henham Hall, Suffolk. While there he was invited to come to the University College, Reading, as garden curator and instructor, having been specially recommended to the council by Mr. John Wright, V.M.H., who had kept in close touch with him from his early years. Here at Reading our deceased friend found wider scope for his great abilities, as in the course of a few years as a horticultural training school and centre of instruction the college obtained wide popularity and distinction. When, but a year or two since, Mr. Foster left Reading to take up the work which Lord Northcliffe had so generously and happily suggested at Sutton Green, Surrey, he was presented with a valuable testimonial, and left with the greatest regret on every hand. While at Reading he was selected by the National Sweet Pea Society to conduct its official trials, and so well were they conducted that it was agreed, after his removal into Surrey, still to place them in his charge. How he justified that confidence let the records of the National Sweet Pea Society tell. At the annual meeting of the society in December last the members presented him and Mrs. Foster with a canteen of silver and a purse of money as an appreciation of their generous services in the interests of the society. He also, with Lord Northcliffe's entire approbation, conducted last year certain trials of Onions, Cabbages and Potatoes for the National Vegetable Society, giving to all concerned the completest satisfaction. Even now a trial of Cauliflowers for the society has been begun there. Needless to say, to both of these bodies his untimely death comes as a sorrow not easily allayed. A prominent and most helpful member of both these societies, he had also been for several years a member of the Royal Horticultural Society's fruit and vegetable committee, and recently, having been a member of the executive committee of the International Horticultural Exhibition of 1912, had undertaken to act as county secretary for Surrey. Mr. Foster leaves two sons, one of whom is in mercantile work at Manchester, and the younger one, living at home, has been both a Wisley student and his father's helpmate at Sutton Green. Mrs. Foster is a niece of Mr. John Wright. The deceased's father is still living and resides in Lincolnshire. To the widow, the sons and the aged father we offer our deepest sympathy in their great affliction, a sorrowful one indeed, which will be very widely felt and shared.

The funeral took place at Old Woking Cemetery on the afternoon of the 20th inst. amidst tokens of the high esteem in which the deceased was held. Among those present were Messrs. A. Dean, V.M.H., chairman of the National Vegetable Society; Owen



THE LATE CHARLES FOSTER.

Thomas, V.M.H., vice-chairman; F. W. Harvey, Editor of THE GARDEN; R. Hooper Pearson, Editor of the *Gardeners' Chronicle*; G. Gordon, V.M.H., Editor of the *Gardeners' Magazine*; C. H. Curtis, hon. secretary of the National Sweet Pea Society; J. Weathers, secretary of the British Gardeners' Association; E. F. Hawes, Royal Botanic Gardens, Regent's Park; H. J. Wright, cousin of the deceased; T. Stevenson, R. J. Frogbrook, J. Goatley, gardener to Lord Northcliffe; J. MacDonald and F. Giles, representing Messrs. Sutton and Sons, Reading, and T. Lewis, representing Messrs. J. Waterer and Sons.

JAMES WALKER.

It needed but a brief association with this now unhappily deceased horticulturist to learn that he was a thorough Scot, for, in spite of thirty-five years' residence in England, the native accent strongly adhered. Born in 1837 at Rutherglen in Lanarkshire, though his early years were spent in a very diverse vocation, his desire was to be a gardener. Having assisted to start a horticultural society in his native place, he left Scotland in 1875 and established himself as a market-gardener and Cyclamen-grower at Whitton, near Hounslow, where he remained for several years. Then, wishing to enlarge his sphere of operations as a fruit-grower, he became the occupier of a large area of land on the Dysart Estate at Ham, Surrey, where he made his final home. Here he planted fruit trees specially and very largely, and in doing so selected varieties of Apples, Pears and Plums that had good market value. He also erected numerous large span-roofed houses, which were devoted to the culture of Peaches and Nectarines, and really superb crops were secured, even though the natural soil was of a sandy character. Not infrequently some of his fruit was the finest in the market. But it was in relation to the Daffodil that Mr. Walker secured the greatest horticultural fame. Quite early in the development of Narcissi he saw the potentialities of many of the finest early varieties for market purposes and grew them in huge breadths, so that his farm became for a time a gigantic flower garden. When the Daffodil Conference was held in 1884 he exhibited a collection of 100 varieties, which then created quite a sensation. To-day, of course, several hundreds might be shown if desired. But Mr. Walker, while willing to test any good novelties, took care not to burden himself with any great bulk of varieties that could not be relied upon to give profitable results. Many thousands of persons to-day who are either engaged in growing Daffodils or marketing or retailing the flowers owe much to Mr. Walker's keen insight into their market value and to his enterprise in giving the industry such a lead. Naturally, it has been with many persons a matter for surprise that Mr. Walker's services to horticulture had not been recognised by creating him one of the Victorian Medallists. It is understood that he was offered that honour in 1897, when the original list of recipients was issued, but for some reason he declined it. Made a Fellow of the Royal Horticultural Society in 1880 and a member of the floral committee in 1885, he was also an active member of the Daffodil committee from its creation.

The funeral took place in Ham Churchyard, which adjoins the farm, in singularly beautiful weather, on Wednesday afternoon of last week in the presence of a very large circle of friends and neighbours. Owing to nearness, the body was borne to its last resting-place on the shoulders of some of his able-bodied employés. The grave was lined and surfaced with moss and dotted with flowers of Horsefieldii Narcissi. The funeral service was conducted by the Presbyterian minister from Richmond. Horticulture was represented by Mr. H. B. May, V.M.H. (chairman), Miss Ellen Willmott, V.M.H., and Mr. W. Poupart, of the Royal Horticultural Society's Daffodil committee; Mr. J. McLeod, of the floral committee; Messrs. W. Bates and A. Dean, V.M.H. of the fruit committee; and by Messrs. Alderson, Bruckhaus and Lindsay, representing the market interest. The deceased had a family of five sons and five daughters, who, with their mother, are all alive. The two elder sons control the business.

A. W. G. WEEKS.

It is with deep regret that we record the death, on the 9th inst., of Mr. Alfred W. G. Weeks, for many years associated with the time-honoured firm of Messrs. John Weeks and Co., horticultural builders, Chelsea. Mr. Weeks was a man of wide sympathies, and gave freely to very many charities. He was a life supporter of the Gardeners' Royal Benevolent Institution and a vice-president of the Royal Gardeners' Orphan Fund. Few men in the horticultural building trade have been better known or were more deeply respected. It is interesting to note that his uncle, Mr. John Weeks, flowered the Victoria regia in an open-air tank heated with hot water in the summer of 1851.



EARLY FLOWERING
COSMOS
ROSE QUEEN and
WHITE QUEEN

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance.*

All communications must be written clearly on one side only of the paper, and addressed to the EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

CLUB-ROOT DISEASE IN THE CABBAGE FAMILY.

Its Cause and Prevention.

ONE of the most common, and certainly the most troublesome, diseases that invade the kitchen garden is club-root. It manifests itself first in the form of tiny swellings upon the young roots of seedlings, which, as the plants grow, get bigger and bigger, until, finally, the greater part of the whole root system is converted into an enlarged mass of diseased tissue. In the last stage of the disease the root passes into a soft rot and gets gradually incorporated with the surrounding soil.

This particular kind of disease only affects cruciferous plants, such as the Brassica or Cabbage tribe, Stocks and Wallflowers, and weeds like Shepherd's Purse. All other non-cruciferous plants of the garden or field seem to be immune. It has been observed, moreover, that the soil itself gets infected through bearing a crop so diseased; that is to say, if the soil is again cropped with Cabbage, Turnip or other cruciferous plants, clubbing is certain to occur during the season.

These well-known facts obviously suggest that clubbing is due to the activity of some form of invisible life that enters the plant from the soil and lives as a parasite within the tissues of the root. This belief is further strengthened by experiment, because if we take some soil from a club-infected plot and mix it with healthy soil anywhere else and sow seeds of any Brassica in it, club-root disease will almost certainly break out among the seedlings. But if, before mixing, we sterilise the infected soil, the seedlings will be quite healthy, at all events, so far as clubbing is concerned.

Having established by observation and experiment the fact that the disease is due to the presence of a microscopic parasite, the work of actually discovering it in the diseased tissue and of studying its nature and life-history has been thoroughly well done by biologists in different countries. If a tiny fragment of the soft decaying root be examined under a powerful magnifying lens, there will be seen among the broken-down tissue vast numbers of exceedingly tiny spores. In a bit scarcely big enough to see with the naked eye there would be many thousands of such spores. These spores represent the resting stage of one of the parasitic slime fungi, a group including some of the simplest forms of vegetable-life. Given the chance, each spore has the power of infecting a seedling crucifer, and, considering the countless numbers of them in a single clubbed root, it is easy to imagine the risk of infection in a soil that has carried a crop affected with this particular disease.

The risks are enormously increased by allowing the roots to decay, as the soft spore-laden matter is left in the soil, and the virus gets more or less thoroughly scattered and mixed with the soil during the ordinary tillage operations that follow the removal of the crop. The spores lie dormant in soil, some of them apparently for years. A proportion of them germinate the following year; the slime-like living matter in the interior of the spore bursts its case and creeps out. If it reaches the young root of a seedling crucifer, it enters it and takes possession of one of the minute cells that go to the formation of the soft or sappy tissue of the root. Here it feeds, and as it increases in size it invades neighbouring cells until a considerable area is occupied. Owing to the irritation produced, the cells enlarge much beyond their normal size; hence the swelling or clubbing that results. When the tissue dies the slime granulates into a mass of spores.

It has been found that this fungus thrives best in an acid soil. Now, an undrained soil or a soil that has been receiving too frequent or too heavy dressings of farmyard manure is usually more or less acid in reaction, and hence such soils are especially liable to bad attacks of the disease once the soil gets even slightly infected with the club-root spores. The remedy in such cases is a heavy dressing of quicklime. The quantity recommended is at the rate of about thirty-five bushels per acre, but in chronic cases of infection a much higher dose may be necessary. The lime corrects acidity and retards the activity of the slime fungus.

While the use of lime is seemingly the only known practical remedy for club-root, yet it may be easily inferred from what has been said that much can be done in the way of prevention. (1) Examine carefully the roots of all young crucifers (Cabbages, &c.) for root swellings before planting, and discard and burn those that show any indication of the disease. (2) Be careful not to introduce into your

vegetable garden any manure at all likely to contain discarded roots of clubbed Brassica, and be careful even not to bring in soil attached to boots that have walked over, or tools that have been worked in, club-infected plots. (3) Keep the soil sweet. Give frequent applications of quicklime, especially if you are liberal in the use of farmyard manure. (4) Once club-root is discovered, raise the plants immediately and burn or deeply bury the roots; on no account throw them on the rubbish or manure heap. (5) So arrange rotation that crucifers will not succeed one another. Keep them as far apart in time as possible. Be careful to keep down all cruciferous weeds.

D. HOUSTON, F.L.S.

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NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 7.—Scottish Horticultural Association's Meeting.

March 8.—East Anglian Horticultural Society's Meeting.

March 9.—British Gardeners' Association's (London Branch) Meeting.

The Japanese Gate, Kew Gardens.—The handsomely-carved wooden gate which formed one of the exhibits at the Japan-British Exhibition last year has now been erected, under Japanese supervision, near the Pagoda in Kew Gardens. It occupies a rather prominent position, and is partly overhung with old Cedars. This gate is a reproduction of the sacred gateway to one of the magnificent Buddhist temples in Kyoto, and, as will be seen by the illustration on page 100, is a splendid example of Japanese work.

Royal International Horticultural Exhibition, 1912.—We are informed by the hon. Press secretary, Mr. R. Hooper Pearson, that already several valuable cups have been presented for competition at the Royal International Horticultural Exhibition to be held next May at Chelsea. Among the donors are the treasurer, Sir Jeremiah Colman, Bart., V.M.H.; the chairman of the executive committee, Mr. J. Gurney Fowler; the Worshipful Company of Fruiterers; the Worshipful Company of Gardeners; the proprietors of the *Gardeners' Chronicle*; Messrs. Sander and Sons, St. Albans; Messrs. J. Charlesworth and Co., Hayward's Heath; Messrs. Dobbie and Co., Edinburgh; Messrs. Barr and Sons, Covent Garden; and Messrs. George Bunyard and Co., Maidstone. Others wishing to contribute cups should communicate with the hon. secretary, Mr. Edward White, 7, Victoria Street, Westminster, or Mr. Harry J. Veitch, chairman of the schedule committee. A science and education committee has been appointed to promote a congress and advance the scientific section of the exhibition. The chairman of this committee is the Hon. A. H. Dyke Acland, P.C., and Mr. F. J. Chittenden will act as hon. secretary. The members include E. A. Bowles (chairman of the Royal Horticultural Society's scientific committee), Professor William Bateson, F.R.S., Professor Bayley Balfour, F.R.S., Sir Thomas Elliott, K.C.B., Anderson Graham, Dr. Bretland Farmer, F.R.S., George Gordon, V.M.H., H. Rider Haggard, Sir Everard im Thurn, K.C.M.G., Dr. D. Jackson, F.L.S., Dr. F. Keeble, M.A., Donald MacDonald, W. Marshall, V.M.H., Fred W. Moore, M.A., Spencer Pickering, F.R.S., Lieutenant-Colonel D. Prain, C.I.E., F.R.S., Dr. A. B. Rendle, M.A., B.Sc., T. A. H. Rivers, A. G. L. Rogers, E. S. Salmon, Arthur W. Sutton, V.M.H., Professor Somerville, Harry J. Veitch, V.M.H., Professor S. H. Vines, D.Sc., F.R.S., and the Rev. W. Wilks, M.A. While, therefore, this great exhibition will be one of the chief spectacular attractions of the London season of 1912, the unique opportunities afforded by the presence of experts from every country will be utilised to the fullest extent for the advancement of horticultural science.

Sweet Pea and Rose show at Chelmsford.—At a special meeting of those interested, held at the County Laboratories, Chelmsford, on the 21st ult., Mr. Arthur Duffield in the chair, it was decided to arrange a show of Sweet Peas and Roses similar to that held last year, the whole of the profits to be devoted to the Chelmsford Hospital. The Mayor, Alderman T. J. D. Cramphorn, was elected president and Mr. W. Marriage secretary, the committee of last year being re-elected with several additions. A resolution was also adopted to the effect that it was desirable to form a Sweet Pea and Rose society for Chelmsford and district, and a provisional committee was appointed to consider the question and make a report at a future meeting.

Cape and other fruits in Covent Garden Market.—Some idea of the vast proportions that the fruit industry in Cape Colony is assuming may be gathered from the fact that during the last fortnight no fewer than 30,000 cases have arrived in Covent Garden Market. The first consignment of Mangoes from the Cape has just arrived, a fruit for which we have hitherto had to depend upon India. The Cape Mangoes are of the kidney type, and the colour and flavour are both excellent. These fruits are much appreciated by Anglo-Indian visitors to this country, and sell at from 6s. to 12s. per dozen. Other fruits now arriving from the Cape are Plums, Pears, Peaches, Nectarines, Melons and black and white Grapes, these latter being the well-known Hanneport and Hermitage varieties. In addition to these Grapes the market is well supplied with home-grown kinds, which make good prices. The supplies of Strawberries from the Worthing district are now increasing in quantity, and show a marked improvement in quality and appearance, prices asked for these ranging from 12s. to 20s. a pound, according to the quality.

Small holdings. — Interest in the small holders' movement is growing in intensity and taking definite shape. There has been a decided stimulus on the part of the Board of Agriculture. Lord Carrington's announcement that the Government contemplate establishing credit banks for farmers has not come a moment too soon. The idea was ventilated some years ago at agricultural conferences in various parts of England, but now it is understood the Department has taken the advice of leading bankers, whose views will be helpful in drafting a scheme. The Board of Agriculture is believed to favour dealings with joint stock banks, if an arrangement can be made for a moderate rate of interest, a small percentage above the current bank rate being thought practicable. This scheme may be accompanied by the stipulation that the bank shall have power to audit the accounts of the local credit or co-operative society. Most of these societies have been placed upon a sound financial basis in recent years as a result of the marvellous development of co-operative principles, so that it is not likely this condition will imperil the success of the proposal. "Small holdings upon which a man intends to live and make a living," said the Earl of Radnor, the Lord-Lieutenant of Wiltshire, "cannot be completely successful unless those who handle them co-operate and work together for the common good." Testimony of this kind from one of England's great landowners shows to what extent co-operative principles have progressed among all classes of the community in recent years.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sowing Sweet Peas in pots or boxes.—A. B. Essex (page 77 of THE GARDEN) is not alone in his experience of better results accruing from sowing Sweet Peas in boxes instead of in pots; and only a few days before the publication of his note I discussed this very point with a friend who has discarded sowing in pots entirely for what he describes as "much the best method." He has brought himself up to date by adopting the plan of partitioning off boxes in a similar way to an egg-box, so that each seed is in a separate compartment, and at planting-out-time the partitions are so arranged that they can be lifted bodily without disturbing the plants in the least, and thus their transference to the open ground is quite easy. My own experience, too, is solely in favour of sowing in boxes. This season I have used both pots and boxes; and while in some few pots there are many failures, the same varieties sown at precisely the same time in boxes have come very much better. In each instance the seed was started in heat and had identical treatment, but I cannot satisfactorily explain why better results should follow box-grown seed. I only know that it is so. It has, however, been pointed out to me by an old grower that "boxes are not subject to the same variation of temperature as are pots," and that his experience is that seeds of any kind are better in boxes. Another grower to whom I have spoken sums up the matter by saying "boxes are warmer than either pots or pans, and seeds are more reliable in them." I certainly think there is a deal to be gained in not disturbing the plants any more than can possibly be helped, and look upon the separate partitions as a step in the right direction. One point, however, which I am afraid is not sufficiently appreciated is, that when the seeds are well up they should be removed at once to a cold house or frame. Much harm follows keeping plants in a warm atmosphere. My seed was sown in December, and the plants are looking healthy in a frame over which a mat is placed on sharp nights.—WALSHAM.

Hyacinthus candicans and Gladiolus brenchleyensis.—Should any reader of THE GARDEN be wondering what he can plant so as to obtain a bold and striking effect in any given bed or quarter, I would most strongly recommend the above two plants in association. The tall, tapering spikes of the Hyacinthus just top the stiffer spikes of the Gladioli, giving a touch of gracefulness to the combination. To those who have never tried the above together there is a charming surprise in store. Both can be planted at the same time, allowing a distance of 9 inches to 12 inches between, according to the size of the bulbs and corms. The soil should be fairly rich, moderately deep and well drained, for although they like plenty of water during growth and the putting forth of the spike, stagnation spells failure. It is true these two plants do not flower very early in the year; but do not let that fact deter anyone from planting them, for the bed can be carpeted over with suitable shades of Violas. These plants will flower early and all through the summer, while the slight shade afforded by the tall growths of the Hyacinthus and Gladiolus will be most welcome to the Violas.—C. T.

French gardening in England.—Referring to "Avon's" remarks on French gardening in your issue of February 11, I should like to point out that the French methods of intensive cultivation appear to be very similar indeed to the methods of forcing in use in England as long ago as 1748. In February of that year the Scandinavian naturalist Kalm visited England, and in one of his publications he expresses himself as being very much impressed by the market-gardens in the neighbourhood of London. He describes raised beds sloping very slightly towards the sun. On some of these were placed portable frames covered with Russian mats and straw, and in them, though his visit took place as early in the year as February, were Cauliflowers 4 inches high. Cauliflowers were also raised under bell-jars, three or four plants under each glass; while Radishes, Asparagus and other crops were grown in the same way. It seems unlikely that these means of forcing would have fallen into such disuse in our country as to make it necessary for them to be practically reintroduced if they had been well adapted to our climatic conditions.—SPINK.

Clematis indivisa as an outdoor plant.—THE GARDEN, having such a wide circulation, must have a very large number of readers, and I know you study to place before them such reading as is interesting both to the professional and the amateur in the gardening fraternity. An error will, however, creep in occasionally; but it is pleasing to note that if there is an error good will result from it. Your correspondent "Avon," in your issue of January 21, says that Clematis indivisa cannot be treated as a hardy plant in this country; but it may interest yourself and also "Avon" to know that I have a plant which was planted out in the year (spring) 1907 and has made excellent progress. It is on a border facing south-east, with no protection whatever, and is loosely tied against a stone wall. I have sent you two trails which are well furnished with bloom. Of course, I will admit it is considered a greenhouse variety, and the blooms open more slowly than when inside. I trust your correspondent "Avon" will not take offence at my bringing the subject to your notice.—GEORGE GODDARD, *The Gardens, Vane Tower, Torquay.* [The shoots were duly received from our correspondent, and were, as stated by him, well covered with flower-buds. Many plants will thrive outdoors in Devon and Cornwall that cannot be grown outside in most localities, and this Clematis certainly needs a greenhouse in the London district.—ED.]

Rock gardens.—I have often wondered whether, in relation to what are commonly known as rock gardens, the primary aim in forming them is to exhibit the artificial work of the constructors of them, so very often utterly unnatural, or the display, under circumstances as nearly natural as artificial work may be, of alpine or other suitable hardy plants that thrive best under such conditions. What in the formation of any rock garden we have to see for several years was well illustrated in the picture of the rockwork at Kew as it now is. In that picture it is all rock, plants being yet obscure. In the picture of the rockwork as it was we see plants and not stone, and for so much rejoice. But it may be that in that famous garden the worker in stone is becoming the dominant factor. We have often seen in gardening experience architects objecting to creepers or climbers on houses because these hide the architect's brick or stone creations. Is that trouble extending to rockeries? I trust that when the rockery at Wisley is constructed no considerations as to the "beauty" of stone will be allowed to interpose against planting so freely that all this artificiality may be hidden from view at the earliest possible moment.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

NOT often do we have such favourable weather for outdoor gardening as has been experienced during January and February. Under these conditions all vacant ground will have been tilled and otherwise prepared for the various vegetable crops.

Peas.—A sowing of Early Giant, Gradus, or any reliable hardy kind may be made now, and if successional sowings are made at intervals of a fortnight, a continuous supply of pods should be assured. Give plenty of space between the rows; 5 feet or 6 feet, according to the height of the varieties, will not be too much. Crops of Lettuce or Spinach may be grown between the rows. A sharp look-out must be kept for mice; these are known to do considerable damage if they are allowed much freedom. The early varieties which are coming through the soil should have the earth drawn about them for shelter. Sticks may be placed to them as soon as possible. Plants which have been raised under glass, if they have been well hardened off, may be planted out whenever a favourable opportunity occurs. These will need some protection for a week or two. Branches of evergreens will be found quite suitable for this purpose. The main crop of Broad Beans must also be sown now.

Potatoes.—A small plantation of an early kind may be made on a sheltered border. These will, of course, need protection when they come through the soil, and some material must be kept in readiness for this purpose. May Queen is a reliable early kind and a heavy cropper.

Seakale.—A new plantation of Seakale for forcing in the open can be made now from thongs which have been selected for this purpose. It is essential to renew these plantations every two or three years if heads of the finest quality are to be obtained For convenience in forcing, plant the thongs in clumps of four or five, leaving sufficient space between the clumps for enough fermenting material to furnish the requisite heat for forcing.

Celery.—The main crop of Celery must be sown now in fine, light soil. The seed may be sown either in shallow boxes or on a gentle hot-bed in a pit. When the seedlings are through, they must be given every inducement to make strong, healthy plants.

Tomatoes.—Seeds may be sown now for the outdoor batch. Sow them thinly in boxes. When large enough pot the seedlings into 3-inch pots, and encourage sturdy growth by keeping them growing near to the glass. Pot them into 6-inch pots when necessary and gradually harden them off, so that they will receive no check when they are eventually placed outside. Carter's Sunrise and Best of All are excellent sorts for this purpose.

FLOWER GARDEN.

Seed-sowing.—Seeds of various kinds must be sown now. To enumerate the many kinds of annuals which are so indispensable in every garden would be superfluous, as this subject has been so often dealt with in the pages of THE GARDEN. There are many kinds which may be sown outdoors in their flowering quarters, but many will be better if raised under glass and pricked out into frames.

Begonias.—The tubers which have been resting during the winter may now be placed into heat. Keep them in a moist, warm atmosphere till they have made considerable growth, when they can be planted in a frame.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

GREENHOUSE.

THE CUT-FLOWER SUPPLY.—To ensure a continuous supply of cut flowers at this season of the year, a regular succession of subjects suitable for forcing must be placed in the forcing-house. Hyacinths, Tulips and Lily of the Valley should be brought in weekly. Inverted pots or boxes may be put over them for a time to induce the production of long stems, which add very much to their value for decoration. Freesias showing flower should be assisted with a little stimulant. Clivias and Hippeastrums are indispensable at this season where large flower-vases have to be kept filled; the plants respond readily to a little gentle forcing and weak applications of liquid manure. Rhododendrons that lend themselves to forcing, as well as Azaleas and Lilacs, may be lifted from the open ground to contribute to the supply.

Begonia Gloire de Lorraine.—The propagation of this accommodating subject should now be attended to. Leaf-cuttings, if not already taken, may yet be inserted. Strong, healthy leaves should be detached from the stem at the axis, dibbled into small pots of sandy soil and placed in the propagating-frame. The earliest batch of plants to pass out of flower are now making fresh growths, and cuttings should be taken from these, selecting those nearest the base of the plants. Place them singly in 2½-inch pots in a mixture of leaf-mould and sand, but do not press the cuttings too firmly in the pots. For providing large specimens, the old balls may be partly shaken out and placed in a box, with some light soil put loosely round the roots, in a Melon-house till young growths from the base are from 2 inches to 3 inches long, when they can be potted up again either entire or divided into pieces as required. Loose potting seems to suit this variety, as well as most other sorts of Begonias.

Cyclamen.—Young plants raised from seed last autumn should now be ready for potting on. At this stage they may be given a moderately warm atmosphere for a time and kept near the light. Syringe them daily to check attacks of thrip or spider. As the season advances they can be moved to a cold frame.

Cinerarias showing for flower will have their pots well filled with roots, and should be assisted with liquid manure. Keep a close watch for the leaf maggot, from which this plant suffers frequently, hand-picking being the best means of cleansing them.

Carnations showing flower-buds should have a temperature of 55° to 60°, or the flowers will not develop properly. Malmaisons require careful attention in the way of water, and no water or moisture should be allowed to touch the foliage at this or any other time. Keep the ventilators open on all favourable occasions and the house quite cool.

Calanthes.—C. Veitchii and C. vestita, having now gone out of flower, should be shaken out of the pots, the pseudo-bulbs being placed in a warm, dry position to rest for a week or two. Afterwards they may be restarted into growth, first trimming off the dead roots and standing them in shallow boxes with a little chopped sphagnum and leaf-mould in the bottom. When fresh roots are emitted to the length of 1 inch, they can be potted up either singly or three or four bulbs to a pot, using a compost of fibrous loam, well shaken out, peat, chopped sphagnum, broken crocks and a little dried cow-manure, the pots being filled to a third of their depth with crocks.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

GROWING FIGS UNDER GLASS.

[In Answer to a Correspondent.]

WE do not know of a book specially devoted to the growth of the Fig under glass, but the subject is exhaustively treated in the standard work on fruit culture, "The Fruit Garden," published from this office. Our correspondent does not say whether she wishes for information with regard to the growth of the Figs in pots or in borders. The systems of culture in the two cases differ considerably; but both are simple and easy to successfully carry out, provided some knowledge of the subject is possessed by the grower and that assiduous care is given to ventilation, watering and other details of necessary work. The Fig succeeds very well under both systems of culture, but it is specially well adapted for growing in pots, and it is to this system that reference is made. Presuming that you already have the trees by you (if you have not and you are about to buy them, it would be advisable to buy four year old trees in dormant condition—these should be in 10-inch or 12-inch pots), the first thing to do is to loosen the surface soil in the pot to the depth of about 1½ inches with a pointed stick, clear it out, and then top-dress each tree with fresh soil. The best soil to use for this purpose is a moderately heavy fibrous loam of a calcareous nature. Break the turf in small pieces the size of a hen's egg with the hands, adding the following manures: To a bushel of the loam add half a peck of fresh horse-manure, the same of old mortar rubble, broken small, and a quart of bone-dust, well mixing the whole together. Place it on the surface of the pot over the roots and build up 2½ inches higher than the rim of the pot, the outside line of the top-dressing resting on the outer edge of the pot. In building up this top-dressing bear in mind to ram it down quite hard with a small wooden rammer. You will find that new roots will soon form in this top-dressing, resulting in binding it firmly to the pot.

The next thing to do is to introduce the young trees into the glass house in which they are to grow and fruit. There will probably be stages in the house on which to place the pots. It will be found of great advantage to have placed on these shelves a depth of about 10 inches of leaves in which to plunge the pots, packing the leaves firmly round the pots. This will prevent the soil in the pots from drying so quickly, and it will also provide a good rooting medium for the roots to revel in.

A word should here be said about pruning the trees before they are introduced into heat; but the fact of the matter is that, generally speaking, Figs in pots bear such heavy crops that wood growth is confined to very narrow limits, and consequently there is usually little or no pruning to do, and when there is it is confined to cutting out a few weak shoots where they may happen to be in a crowded state. Having plunged the pots in the leaves, let the trees be syringed with tepid water twice a day from 8 a.m. to 9 a.m. and from 3 p.m. to 4 p.m.

Temperature.—At first this should range from a minimum of 50° at night to 60° Fahr. in the daytime without sun-heat. With sun-heat it may rise for a short time another 7° to 10° with advantage.

Atmosphere.—This should be kept in a fairly moist condition by occasionally lightly syringing the paths, border and walls of the house during the day.

Ventilation.—For the first month after the trees have been introduced into the house very little ventilation will be necessary—just a little during the middle of the day, closing the lights not later than 3.30 p.m. As the days lengthen and the sun-heat gains power, you will find that the young trees will soon start into growth, when freer ventilation will be necessary; but bear in mind never to admit as much cold air into the house as will suddenly and unduly lower the temperature, or the young and tender growth may suffer a chill and loss will ensue. Air should be admitted gradually, a little, say, at 8 a.m., more about 10 a.m. and, if the sun is warm, a little more at noon, but always up to the end of May from one side of the house only, in order to avoid creating a draught. After the end of May the ventilators on both sides of the house may be opened in warm weather. When syringing the trees, paths and borders in the afternoon, say, about 3.30, it is a great advantage to close the house, thereby husbanding the natural heat of the sun for hours afterwards. This will cause the temperature to rise considerably and will prove of great benefit to the trees. From the end of May onwards a little air should be left on a few of the front and back ventilators all night, depending on a slight heat in the hot-water pipes to prevent the temperature from falling too low.

Progress of Growth.—The Fig should produce two crops of fruit in the course of the summer and autumn. The first is produced on the young shoots the growth of last year, and will appear simultaneously with the growth of the young leaves. The second crop will be borne on the young shoots of the current year's growth. Should these young shoots attain a length beyond 5 inches or 6 inches, which they seldom do, it will be necessary to stop them; that is to say, pinch out the point at the top of the shoot with the finger and thumb; this will induce them to show fruit if they have not done so before.

Watering.—This is a very important item of work in regard to the successful culture of the Fig. Rain-water should always be preferred when available. For the first month after their introduction into heat, before much growth has taken place, little water will be needed—just enough to keep the soil on the moist rather than the dry side; but as soon as growth becomes active and numerous new roots are forming, more water will be necessary. Later, when the crop of fruit is swelling fast, they will require watering twice a day on hot, drying days.

Liquid Manures.—In the hands of the inexperienced cultivator irretrievable damage for a season may easily result from the injudicious use of these. Experience only can teach the grower how to usefully and safely apply them. No liquid manure should be used until new roots and new growth have been formed. The best liquid manure to use in the first instance is that made from fresh farm or stable yard manure, and the best way to make it is by filling a sack or a bag with the manure and placing it in a tank of water. The bag will want shaking up occasionally and refilling with fresh manure every three weeks. At first the trees may be watered with this liquid manure in a diluted state once a week; later, when growth is more advanced, twice a week; and later still, when growth is most active and the fruit swelling fast, it may be given every other day alternately with liquid manure made from Peruvian guano. The best known method of forming this is by mixing and dissolving a handful of the guano in three gallons of water.

The Time of Ripening.—This will be apparent from the softening and the changed colour of the fruit, also by the oozing out of a crystal-like fluid from the eye of the fruit. Less water must now be given, but the soil must be kept moist all the same, and less moisture in the air also must be maintained, with a much freer admission of air day and night. As soon as the first crop has been gathered, recourse must again be had to the same conditions of growth in the way of temperature.



JAPANESE GATE RECENTLY ERECTED IN THE ROYAL GARDENS, KEW. (*See page* 98.)

ventilation and watering as obtained in the growth of the first crop. After the second crop has been gathered, the end of the summer will have arrived and the growth of the trees matured. It will now be time to place the trees out of doors in a sunny, sheltered position to complete the ripening process of the wood. They should have their pots plunged in ashes this time, and as careful attention to watering be given as before. In the autumn, when the leaves have fallen, they may be stored away for the winter in any outhouse or coach-house where they are safe from severe frost. Early in the month of November they should be again top-dressed in the same way as advised before. It is better to do this in autumn than in spring. They will then be ready for introducing again into heat in spring, or earlier if required. The house in which they have been growing through the summer will be available for Chrysanthemums or other plants during winter.

Varieties.—The best early variety is undoubtedly St. John. For midseason, Brown Turkey and White Marseilles are still the best. For a later supply Bourjasotte Grise is one of the best.

OWEN THOMAS, V.M.H.

THE AMATEUR'S VINERY IN MARCH.

WE have now come to a season of the year when it is advisable to refer to the Vines as early, medium and late. The early Vines are those started into growth before Christmas or about that time; the medium early Vines are those started late in January and in February; and the late Vines are those that start into growth naturally or without artificial heat at the end of March and during April.

Early Vines.—The young shoots on these will now be well advanced, and a few degrees more heat may be maintained. Rather severe frosts may occur at any time, and so care must be taken to avoid a sudden drop in the temperature of the house. On the other hand, it will be unwise on the part of the cultivator to keep the temperature too high at such times. The actual forcing must be as slight as possible during the prevalence of frosty weather. The day temperature should range about 68° and the night temperature about 62°. In mild weather the night temperature may be increased 3° or 4°, and in the daytime, with sun-heat, it may go up to 75°. It is during the bright hours of the day that damping down must be done; that is, the paths and borders should be sprinkled with water either from a syringe or a fine-rosed watering-can. There must be no syringing of the young foliage. I only favour the syringing of the rods until the young shoots are about 1 inch long. The sprinkling of water on the path and borders in sunny weather creates a nice moist atmosphere, which is very conducive to the healthy growth of the young shoots. I do not favour the placing of pans or troughs on the hot-water pipes for evaporating purposes, as very often nice leaves are scalded owing to the excessive amount of steam arising from the water in them. Of course, the amateur wants to grow strong Vines, and to this end he feeds them through their roots; but Vines feed through their leaves also, and if a quart of rather strong liquid manure, obtained from the stables or cow-sheds, be mixed with a gallon of clear water, and then all of it is sprinkled on the path and border, the ammonia arising from it will greatly benefit the young growth. The sprinkling should be done after the sunshine has gone off the house or on a dull day. About twice each week will be sufficiently often for the sprinkling. The disbudding of the Vines is a very important matter indeed. Probably there may be two or more young shoots growing on a spur. Now one shoot is quite sufficient to retain, and it must be the best. If the shoot nearest the old rod is the strongest and bears the best embryo bunch of Grapes, it is the right one to retain; the others should be rubbed off, not cut. In about two weeks' time the shoot will have grown considerably, and when two or three leaves beyond the bunch can be clearly seen, the end of the shoot beyond that point must be pinched off. Thus, if space be rather restricted, two joints from which two main leaves are growing must be left beyond the bunch. If there is ample space for their free and full development, leave three leaves and joints respectively beyond the bunch.

Medium Early Vines.—The buds on these Vines will be breaking freely—that is, the young shoots will be visible—and less syringing must be the rule for the next ten days or so, and after that time the syringing must cease. Apply a little more heat at this stage. As I have said in previous notes, it is unwise to subject Vines to a high temperature before the young shoots appear. Afterwards, however, it is good policy to gradually increase the artificial heat, as at the same time the outside temperature is also becoming warmer. The combination of heat, accompanied with a judicious amount of moisture in the house itself, tend to secure a very healthy growth of the Vines. The ventilation of the houses must receive careful attention; the young shoots are very tender and should not be subjected to cold draughts.

Late Vines.—As long as the buds are dormant and dry, a little frost will not injure them; but, of course, it is better to keep out frost, and at other times to fully ventilate the structure. The necessary cleaning of the rods, roof and walls of the house, and the whitewashing of the walls with lime, must be done forthwith, if not already attended to. A careful watch must now be kept for the presence of mealy bug, as it is when the Vines are dormant that this evil pest can best be eradicated.

B.

THE FLOWER GARDEN.

AN EDGING OF ANNUALS.

THE accompanying illustration represents a simple yet pleasing edging of annuals to a mixed border, and suggests a use to which these flowers of summer might be put more often than they are. The two shown in the illustration are Candytuft and Virginian Stock, favourites of those old cottage gardens which many of us would imitate if we could. Fortunately, both flowers have been greatly improved during recent years, and high-class strains can be obtained from any seedsman of repute. Both are hardy, and may be sown in the open garden where the plants are intended to bloom, from the last week in March until the end of April.



A BORDER OF ANNUALS EDGED WITH CANDYTUFT AND VIRGINIAN STOCK.

THE FASCINATION OF THE ANEMONE.

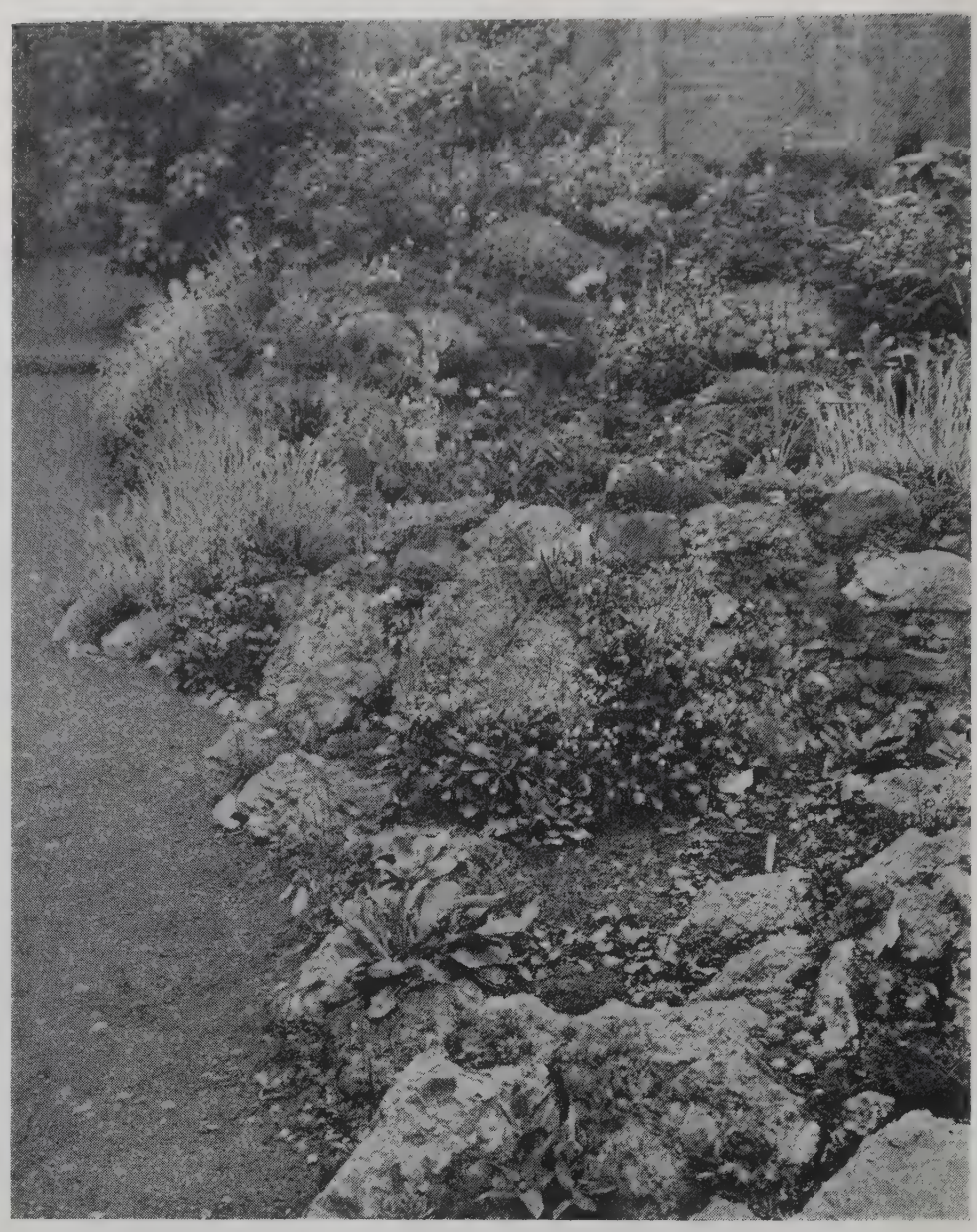
FOR the purpose of these notes I will divide the Anemones in twain, thus: (1) Those I can grow; (2) those I cannot. The latter division not only includes those that are difficult to manage in most gardens, such as A. palmata, Fanninii, baldensis and vitifolia, but, unfortunately, the whole coronaria section and most of the hortensis group. I have squandered a certain amount of pelf and wasted much thought, elbow-grease and good soil in the hope of at last inducing them to settle down and abide with me; but all in vain. A few forms of the variety græca of hortensis which I collected on the road to Kephissia, near Athens, a dozen years ago are still with me; but I have saved all the seed I could and have carefully nursed them, and, even so, the best of all, a pure white form, with large overlapping sepals, the equal of which I have never seen elsewhere, has never showed up among them. Amiable traveller who readeth this and art about to visit Athens, I pray thee drive out on that road some

four miles and explore the banks on the left-hand side, climbing them and peeping over on the side hidden from the road, and, if in mid-March, I trust as glorious a vision as greeted me will reward thee—hundreds of Anemones of the true græca form and of all shades of cerise and salmon, with broad white rings in the centre of many, and here and there the pure white form. And should thy grateful heart stir thee to post a root or two to my address, my gratitude will be assured, and I hope the successful cultivation of the treasure also.

The fulgens varieties of hortensis also die out here, but I have one jewel in an almost white form, with a suggestion of lilac about it, which becomes an actual mauve on the back of the sepals. It has lived many years in the rock garden and, so far, steadily increases and delights all who see it in early spring. I believe it was sent me among some bulbs from the Riviera, and, if so, it must be a wild form.

But it is not of this group of unmanageables that I wish to write, and I must fight against that curious weakness of gardeners which causes them to prize most highly the plants that are most difficult to grow in their gardens. How often one is shown a sick and moribund specimen as one of the treasures of a garden, with the legend that it is the only survivor of many brethren for whose well-being no pains were spared. Possibly in another garden but a few miles away this same plant flourishes, owing to a difference of soil or situation, and some other plant that grows like a weed in garden No. 1 is here the invalid and gets all the attention and notice that, rightly, should go to the happy, healthy plant. It is the same weakness of human nature, I suppose, that induces a clever singer to feel but little pride in his musical attainments, and long to shine at cricket, though he always bowls wides and his average is expressed in decimals; and a great painter will, perhaps, insist on boring his friends by singing to them "always, always out of tune." Though I moralise thus, I know I have not learnt the lesson I preach, and if anyone were to offer me a few hundreds of Anemone coronaria, I should start off to prepare a bed for them at once.

My first division is mostly composed of the Wood Anemones and their near relations; that is to say, nemorosa, ranunculoides, trifolia, apennina and blanda. The ordinary white *A. nemorosa* is well worth a corner among deciduous shrubs in any garden, and I have derived much pleasure and interest from collecting slight variants from different localities. The common form on the Cotswolds is tinged with pink, and that too in its early stages, and especially on the outside. The pink buds are very pretty while still pendulous, and at a little distance look much like Cyclamen flowers. The form more often seen in gardens as variety rubra, on the contrary, opens white and flushes to a rather crude pink, even a dash of the villain Magenta, that evil spirit that possesses so many poor flowers; whereas the Cotswold form is of a salmon or yellow-pink shade. There is also a form known as variety rubra fl.-pl., but it is only semi-double. Both are interesting and make a contrast with the white forms, and the flowers strike one as being rather more enduring than those of the type.



A CORNER IN MR. MALBY'S ROCK GARDEN NEAR LONDON.

Of major forms I know and grow two. One is known as grandiflora, and, I believe, was found in Ireland some years since by Lady Doneraile. It is a tall grower, and its leaflets strike one as rather narrow for their length. The flowers are large, but the sepals are narrow and exceed the orthodox number of six, which, I think, rather detracts from its beauty. Perhaps if I had not the other form to compare it with, I should not notice this weak semi-double appearance. It is hard to imagine a more beautiful flower than this second large form. It was given to me many years ago by my dear old friend Dr. Lowe of Wimbledon, and he always called it Leeds's variety, and I think he told me he obtained it from him. It is beautifully figured in a coloured plate in THE GARDEN for October 15, 1887, from plants grown at Munstead, and Mr. Burbidge, writing of it in THE GARDEN for April 14, 1900, says: "One large-flowered pure white form is very distinct and beautiful. I first saw it at Munstead, and I think it was there called Dr. Lowe's variety. In general size and stature it resembles the lovely pale or lavender blue Robinsonii, which may possibly be a form of it, varying mainly in colour." This gives a very good idea of it; but I think it is more perfect in form than Robinsoniana. Its sepals are even wider, lie open more flatly, and never buckle and twist or possess the narrowed-in, squared-off tip which I associate with Robinsoniana's; but as I write from memory only, I may be unfair to this beauty. However that may be, I feel sure I cannot overpraise Leeds's Wood Anemone. It certainly resembles Robinsoniana at the first glance—in a certain robust, compact appearance—both being of good substance, nothing flimsy about them. But its leaves are more ample, wider than in any nemorosa form, and of a rich deep green. I think I could recognise non-flowering portions quite easily. The flowers are set rather close to the involucral leaves, as the peduncle is comparatively shorter than in most forms. This aids in showing up the whiteness of the flowers.

These, as I have said already, are of very good form, and when fully expanded are not far short of 2 inches across. The sepals are white and well rounded, overlapping one another, and I think I am right in saying that they seldom exceed seven in number. If it has a fault, it is that it does not increase quickly enough, but that fault may lie in myself and not in the plant, and be due to my greed in wishing for more.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

(*To be continued.*)

GROWING ALPINES NEAR LONDON.

WHEN one considers the perfect conditions which surround the alpine flora in their native home, providing as it does the maximum amount of sunshine, a copious supply of cool water from the melting snow during their growing season, complete rest through the long winter at a temperature probably very little below freezing, thanks to a blanket of snow many feet in thickness, it is astonishing that such a large measure of success should attend our efforts at their cultivation in our own lowland gardens and with a climate almost the reverse of the one they are accustomed to. The short supply of sunshine is, to my mind, one of the greatest drawbacks we suffer from, and one quite beyond control. This is especially so as we approach the vicinity of London, with its heavy pall of leaden-coloured vapour hanging high above the city and surrounding neighbourhood—even when there is no actual fog—thus cutting out of the sun's rays most of its life-giving properties. Add to this the spasmodic attempts at winter with which we are favoured and the intervals of mild, soft weather, during which plants begin to grow, to be again checked by the next cold snap. Then, too, the growing period here, if bright and sunny, is dry, the very reverse of the conditions required by most of the little mountain plants, which cannot be too moist when making their rapid growth, provided the moisture is fresh and not stagnant in any way.

I have several times found Soldanella alpina and Gentiana verna in Switzerland in full flower with snow-water soaking down the Alp-side and submerging the plants to the depth of three-quarters of an inch or more. When these points are taken into consideration, is it not really surprising that so much success rewards our efforts to cultivate them here?

A very large number of alpine plants (and among them many of the most effective) are no trouble at all to grow, provided the rock garden is properly built, with ample gritty soil into which the roots can find their way; not the dry, sun-baked pockets of 3 inches or 4 inches in depth which one so often

sees in the so-called rockery. The aim of the rock gardener should be to have a bank of soil retained in position by the rocks, which latter should also form chinks and crevices wherein the plants may be sheltered from rapid evaporation, so liable to occur in our summer, where there is no snow-water constantly soaking through the soil to keep the roots cool and moist.

A point often overlooked by the beginner is that the outline of the rockery should not be too formal or rise too precipitously from the path. It should run into little bays interspersed with promontories, which latter will help to give a buttress-like effect to the remainder. The accompanying photograph will perhaps illustrate the sort of thing to be aimed at. The whole should be built with a view to planting every part of it, and so avoid the appearance too often seen, namely, a collection of stones with a plant here and there.

The plants which are most liable to suffer in our winters appear to be the Androsaces and similar woolly-leaved plants, and it is a good plan to protect them with a piece of glass, so placed as to keep off the rain and soil while securing an ample air current around the plant. Many of the alpines do better if planted on their sides in chinks between two stones, such, for instance, as the Ramondias, Haberleas, Saxifraga longifolia and S. Cotyledon, so that wet can never lodge in their crown. An example of this method is seen in the illustration of Wahlenbergia serpyllifolia. I find in planting these it is often very useful to make up some clay and moss into a kind of mortar, and with it fill up all the crevices to the neck of the plant and so prevent the soil from sifting out. In commencing to plant a rockery, the novice will do well to obtain a fair selection of the freer-growing Saxifrages, Campanulas, Sedums, Primulas, Sempervivums and Dianthus, and add to these the more difficult and beautiful varieties from time to time, as if the rarer and slower-growing plants are bought before one is familiar with their requirements, the result may be discouraging. Where possible, plants should be raised from seed, and if this is really fresh there is not much difficulty in so doing. Very often the seed one gets is old and is apt to take a considerable time to germinate. It is a good plan to cover the seed when sown in pots (as all choice seed should be) with about one-eighth of an inch of fine silver sand, as this checks to some extent the growth of moss on the seed-pots, which with slow-germinating seed is such an enemy. Seedling plants are almost always much more vigorous than divided ones or cuttings, and another advantage is that, if one is fortunate, a number of plants can be obtained for a comparatively small outlay. There are also a large number of bulbous plants (mostly small in stature), such as Chionodoxas, Scillas, Galanthus, Crocus, Bulbocodiums, Eranthis, Iris, Ixias, Muscari and Cyclamen, which are quite in keeping among the alpine plants. Many of them do exceedingly well under the patches of Mossy Saxifrages and among the Stonecrops, and give a welcome touch of colour in the early days of January and February, just before the flowers of alpines proper put in an appearance.

With care, even in a small garden within eight miles of the City of London, it is quite possible to have flowers all the year round, though, naturally, the amount of blossom from December to February is small; still, there is always something of interest to go out and look at; and when one remembers that a rock garden, once well built and planted, needs comparatively little subsequent attention, it is surprising that it is not taken up to a greater extent, especially when its inhabitants include some of the most beautiful and brilliantly-coloured hardy flowering plants to be found anywhere. This type of gardening is especially suitable for the small villa garden; for where else can one get so many varied plants into a limited area as in a rock garden? and each rich in individuality, so that one may become on intimate terms of friendship with each member of the collection. Reginald A. Malby.



WAHLENBERGIA SERPYLLIFOLIA FLOWERING IN AN ALPINE ROCK GARDEN.

SOME USEFUL BORDER GLADIOLI.

(Gandavensis Type.)

The arrival of the spring catalogues reminds me that it is quite time to think about what we are going to get in the way of summer and autumn flowering bulbs. With a very little care and management I have found a small collection of Gladioli most satisfactory. Grand, stately, glorious, are some of the adjectives that may truthfully be applied to them when, in the latter half of August and throughout September, they give a magnificence to the garden which I can only compare to that of the Tulips in early summer.

For growing in a collection and as a collection, that is, in beds by themselves, almost anything is a fish that comes into the net. Variety must obviously be one great object which the collector will "go for." My purpose in the following little list is not to put more fish in still, but to suggest to the all-round gardener a few varieties that will give colour and brightness to the border. Three excellent and very cheap ones are: Van Dael.—A beautiful pale salmony pink; fine, well-shaped flowers; large spike. Liley.—Soft rose, an excellent second early. Carnation.—Rosy white, edged carmine; a good and popular example of the picoteed type of Gladiolus. Others about double the price of the above, that is, 5s. or 6s. per dozen, are: Commandant Marchand.—A midseason, rich deep crimson, with splashings of maroon. Hellè.—A noble variety, pale rose, immense flowers and spike. Osmanli.—Salmon rose, with conspicuous white blotches; large blooms. Carmelite.—A rather early mauve, shaded and striped with pink, reminding me of Striped Beauty Tulip; it has a fine spike, and is remarkable for its uncommon colouring. Then from 10s. to 12s. a dozen or so I would single out: Armagnac.—A true scarlet, with a conspicuous white blotch; a tall grower, bright and effective. Sans Pareil.—Brightest orange rose with cream throat; one of the best of all, free flowering, very fine spike. Sorcier.—Rose, marbled slate. Jeanie Smith.—Scarlet, with a dark crimson blotch on a creamy ground; not at all a large flower, but a perfect spike; free. Maria Theresa.—One of the best of the whites; an exquisite variety. Parliamente.—Salmony pink, with a white throat; good spike. Cyrus.—Grand carmine red, large spike and flower. Oslin.—Pink, heavily flaked salmon, with a lilac shade on the edge of the petals; extra long spike. Canicule.—Tall grower; bright rose with primrose blotches. King of Gladioli.—One of the most effective; its large, bright red flowers are very striking, and in a clump it must look superb. All the above I have grown myself, and I have picked them out as being effective as garden ornaments. They are all of the gandavensis type, which in my opinion surpasses all others for this purpose. Joseph Jacob.

SWEET PEA CHAT.

Plants in Frames.—It is good to be able to say that the plants in the frames are looking splendid; indeed, I have never seen finer than those of half-a-dozen friends whom I have recently visited. That they have been bigger in previous seasons there is little or no doubt, but mere size is not everything. What one likes to see is perfectly healthy seedlings carrying stout, strong leaves, and these there are in plenty all over the country. The plants will demand careful attention from now onwards, or it is easily possible that the excellent foundation

that has been laid will be ruined. Fresh air is always insisted upon with Sweet Peas raised in frames, and it never does more substantial good than in the spring when growth is becoming decidedly active. Let them have the benefit of all there is, and on no account allow the surface of the soil in the pots to become caked, or the admission of air will be arrested and the plants will suffer seriously from the loss. When it shows a tendency in that direction, lightly prick it over. The plants have in some instances had support for several weeks, but in others from later sowings the necessity for it is only just arising. Let it be afforded before it is necessary, rather than wait until the plants have fallen over and then insert the twigs. It is always worth while to go to the small additional trouble of tying them to the sticks. Some varieties may be able to support themselves, but they are few in numbers, and it is not wise to run the risk.

A FINE TILTH FOR SOWING.—This is undoubtedly advantageous, notwithstanding the size of Sweet Pea seeds. Therefore the grower who prepared his soil and manured it possibly months and certainly weeks ago should now set to work and dig over the entire quarter. The rough surface that has prevailed until the present time will have favoured amelioration by the weather, but it is improbable that any real further advantage will accrue, and it is urged that the final working shall be immediately commenced and finished at least two weeks, and preferably rather more, in advance of seed-sowing. It is not likely that any difficulty will be experienced in securing a sweet friability; but if there is trouble, the grower must not spare his efforts to overcome it, as it substantially affects the results.

ARTIFICIAL MANURES. — Nearly all writers on Sweet Pea topics urge some pet mixture of artificial manures, and assert that it is impossible to get such excellent flowers when any other compound is used. The Sweet Pea is not a faddist in the matter of food, and provided that there is plenty of it and the quality is good, the plants will take what is given. In any case, it is seldom sound practice on the part of the amateur requiring only a few pounds of stuff altogether to mix his own. He will purchase superphosphate of lime, sulphate of potash, sulphate of ammonia and perhaps half-a-dozen other ingredients, make a more or less satisfactory mixture, generally less, because the materials are not always ground as finely as they ought to be and the conveniences for mixing are commonly restricted to the hands and a rough potting-bench, and a certain quantity is applied to each square yard. Well and good; but why not buy a bag of one of the many excellent mixtures advertised in THE GARDEN? I will promise any reader who does this and faithfully follows the directions sent with it as good results as he would get from a special mixture with much less labour, and I shall be greatly surprised if the flowers are not infinitely superior. My vote is for the mixed manures already prepared.

ROWS AND CLUMPS.—The question crops up again this season, with the same regularity that it has done for a half-score of years, whether plants in rows or in clumps will give the best blossoms. It all depends on the grower. The man who cultivates thoroughly will do equally well with either; the man who works perfunctorily in the details may be regarded as just as certain to fail.

A. B. ESSEX.



WILD NARCISSI ON THE SLOPES OF THE ALPS.

SPRING FLOWERS ON THE ALPS.

ONLY those who have seen them can realise the intoxicating beauty of the spring flowers on the Alps. Colour and perfume are both so overpowering; you can do nothing but fling yourself down among them, crushing some to death in your transport of delight, but heeding nought but your own rapture. Fields, acres and miles of pink, yellow and blue stretch all around, changing and varying as you mount higher and yet higher, till you seem to see every flower you ever tried to cultivate in your garden blooming in beauty, free and fair without care or keeping. It is like a bit of childhood's fairyland, and you dream strange dreams and gather huge bunches in hot haste, just to fling them all away again, for your arms ache with their weight, and surely the beauties you are approaching are still fairer than those you have passed. Illustrations cannot convey the loveliness, descriptions cannot produce the exhilaration felt as one wanders through this scented sea of blossom.

At Les Avants, above Montreux in Switzerland, the golden-eyed Narcissus grows in millions; whole hillsides are thickly covered with this exquisite flower, and there, once in so many years, they keep a Fête des Narcissus. It was my good fortune a year or two ago to chance that way at the right moment, and it was a spectacle which, once seen, is not to be forgotten. It was Saturday, and the town, alive with holiday-makers, was decorated *à la Suisse* with the most exquisite taste. Bunting and large bunches of Narcissi were everywhere, windows and balconies crowded with expectant sightseers, and the open space called La Place Rouverraz, seated for the occasion to accommodate 3,000 people, was crowded to the fullest extent. Young men and maidens, old people and little children, attired in ancient Montreux costumes, then performed before them, grouping themselves gracefully in many attractive ways, while others danced fantastic figures to appropriate music. Afterwards a Flower Corso was held, consisting of fifty beautifully-decorated carriages, which, passing through the principal streets, were everywhere enthusiastically greeted.

On the Riviera a Battle of Flowers is such a usual event that it causes little stir beyond the narrow bounds of its own town, but up among these mountains the Fête des Narcissus is the social joy of all the neighbourhood; and the quaintness that gives such a picturesque touch has not yet passed away from the costumes of the performers or the pleasure-seekers. The fête past, restrictions are withdrawn and the mountains are thrown open to the host of visitors, and eager crowds rush to gather huge bunches of flowers and bear them away in triumph. But still the Narcissus holds the field in undiminished quantity and unsurpassed beauty, while from morn to night the lovely flowers are gathered by hundreds of visitors, who spend hours day after day amid the fragrant fields, which tower like one vast vista of purity away to the distant horizon.

G. A. L.

SOME GOOD SUMMER-FLOWERING ANNUALS.

AT the present time, and during the coming weeks, a large number of readers will doubtless be giving some thought as to what is best to have in the garden during the ensuing months of summer and autumn; hence a few remarks on the more showy of summer-flowering annuals might prove serviceable as well as seasonable.

In the first place, it is worth while to direct attention to the great galaxy of flowering plants known as annuals, *i.e.*, plants whose seeds may be sown in the early weeks or months of the year, according to their kind, and provide what is best described as a sumptuous floral feast within

a comparatively short space of time and at quite a small cost. A point of very considerable importance to those who have neither glass houses nor frames is the fact that quite a large proportion of these annuals when required for effective summer bedding in the open air may be sown in the positions in which they are intended to flower.

In some instances, indeed, as, for example, Eschscholtzias, Mignonette, Sunflowers, Poppies and others, the plants, because of their fibreless rooting character, distinctly resent being transplanted, becoming often enough, in those instances where the work is imperfectly or indifferently done, an absolute failure; hence it is important that the amateur, who may also be trying for the first time his 'prentice hand, should know that in the main annuals are capable of providing the finest effects at flowering-time if sown where they are expected to flower. This, however, must not be interpreted to mean indifference, inattention, or absolute neglect from the time of seed-sowing, since "there is nothing without labour," and no plants amid the great armies of such things that better repay for the labour and attention when these are early and promptly bestowed. In saying this I have in mind the remarkable cheapness of many classes of seeds, often several hundreds of reliable seeds being contained in a packet the cost of which is but a few pence. This to the intelligent cultivator is a great gain, while to the neglectful or indifferent, or those not versed in the requirements of the plants I have in mind, this cheapness becomes a sort of plague, infectious and far-reaching in its ill effects, directly responsible for the deaths of scores, or it may be hundreds, of young plants, and indirectly responsible for the short-lived flowering of those which remain.

The beginner in gardening may be unable to realise this; may be unable to associate cause with effect; hence he must be told that cheap seeds frequently mean thick sowing, while thick sowing (in common with densely-populated areas) is the forerunner of the plague of which I speak. To sow seeds reasonably thick is to the gardener a matter of necessity or convenience, a safeguard, as it were, from the effects of bad weather and the attacks of birds, while early thinning follows in the natural order of things. Then, again, none need empty a hundred seeds in a shallow hole where a dozen plants only are required to make a display; none need empty the packet because it was full; but, by saving a part, make a further sowing a few days or a week or two later, thereby improving the chances of that first sown on the one hand and extending the pleasures of the garden on the other. Here, then, is the chance of a double return for a single outlay, to be still further increased by those most interested in the welfare of their own garden plot, be it large or small.

Apart from this all-important matter of sowing the seeds and the early thinning of the seedlings, attention must of necessity be directed to some of the chief requirements of the plants. Quite a large number delight in poor or stony soils. Mignonette, Nasturtiums, Antirrhinums and Marigolds are cases in point, while such as the Aster prefer a moderately good and also deeply-cultivated soil. On the other hand, while no annuals are benefited by very rich soils, some of them, the "Star" series of Chrysanthemum segetum and its near allies, for example, become gross in growth and yield poor blossoms. In a general way the first week in March will be sufficiently early for sowing the seeds, always choosing moderately dry weather for the operation.

The following are among some of the most beautiful, useful and free-flowering, and are well worthy of the attention of every gardener: Candytuft in many excellent varieties. Chrysanthemums.—The varieties of carinatum and coronatum are excellent, while Morning and Evening Star are quite unique. Sow in the open in March. Dianthus. — D. Heddewigii and D. chinensis are invaluable. Godetia.—No annual is more beautiful or profuse in its flowering. Double Rose, Lady Albemarle and Marchioness of Salisbury are among the best. Dimorphotheca aurantiaca.—A comparative novelty and a great gain. Flower-heads rich shining orange. Sow in frames in April, or in May in open ground. Prefers a warm soil and sunny spot. Nemesias.—Delightful in every way. Treat as advised for the last-named. Marigold.—Orange King is invaluable for colour effect, and possesses great freedom of flowering. Eschscholtzias.—Rosy Queen, Ruby King and Carmine King are much to be recommended. Nasturtiums. — Tom Thumb varieties are invaluable. Prefer a poor soil. Schizanthus.—Not usually sown in the open, though quite valuable in light soils and a sunny position. Sweet Sultans, Mignonette, Sweet Alyssum, Shirley and other Poppies, Nemophila insignis, Cornflowers and Nigella Miss Jekyll will appeal to all; while Rocket Larkspurs and Lupinus hybridus atrococcineus should not be missed. Sweet Peas and Asters are the indispensables of every garden to-day: hence they are passed with this brief remark.

E. H. Jenkins.

COLOURED PLATE.

PLATE 1420.

NEW EARLY-FLOWERING COSMOS.

HITHERTO this half-hardy annual has not been grown with much success, owing to the paucity of blossoms and its tendency to flower very late in the season. The old type was prone to produce a luxuriance of growth and foliage, in inverse ratio to the quantity of flowers. Especially was this the case in wet seasons and when grown on an over-manured or very rich soil. When, however, the plants were induced to flower, they were objects of beauty; indeed, the very name Cosmos is derived from *kosmos*, meaning beautiful, in reference to the flowers. The new strain of Cosmos retains the merits of the older type without any of its disappointing ways. If seed is sown now, the plants may be relied on to commence flowering from the middle of June and to continue until checked by frost. The seed should be sown in gentle heat, when germination will take place in forty-eight hours. It is most essential that the seedlings should be kept as near to the glass as possible to prevent them becoming drawn and weak. The young plants should be pricked out quite early in boxes and gradually hardened off before planting out towards the end of May. The plants flower best when grown on poor soil, and as each plant requires a fair amount of room, they should be given at least 2 feet each way at the time of planting. For indoor decoration the flowers and foliage are very useful. The former are best if cut in the early stage, as they expand and improve in water. Rose Queen, White Queen and Crimson King are three excellent varieties. The first two may be relied upon to come true from seed, but Crimson



A BROAD EXPANSE OF WILD NARCISSI AT LES AVANTS. (*See page* 104.)

King is not yet quite fixed. Rose Queen has a good descriptive name. In July last it gained the distinction of an award of merit from the Royal Horticultural Society. We are indebted to the raisers, Messrs. Dobbie and Co. of Edinburgh, for the flowers from which our coloured plate has been prepared.

THE GREENHOUSE.

GESNERAS FOR THE GREENHOUSE.

BOTH the newer hybrids and plants of Gesnera zebrina discolor are valuable for the decoration of the warm greenhouse or conservatory during the summer and autumn months. Not only are the flowers lovely and of various colours, ranging from pure white to a rich crimson, but they are borne on well-grown plants in profusion and have a light and graceful appearance. Many years ago I visited a public garden in the North of England, and while walking through the long glass houses I was much impressed by the beauty of large groups of Gesneras arranged on the floor and on the side stages. The plants in all the groups seemed to be equally good, both flowers and foliage being very healthy and attractive. It occurred to me at the time that the plants were eminently suitable for growing in conservatories which were built in partial shade. Of course, it is not possible to have all structures of this kind, which are mostly attached to the dwelling-houses, in open, sunny positions. Consequently, a difficulty is then experienced in obtaining various kinds of plants that will flower freely in them.

These plants form bulbs very similar to those of Gloxinias, and they may be stored in the winter-time and grown on year after year until their strength fails. It is good policy to raise some seedlings every year, and the best time for sowing the seeds is during February and March. Readers who possess well-heated structures often sow the seeds in February; but those who have moderately heated greenhouses would do well to defer the sowing until about the middle of March, as an even temperature is essential if strong plants are desired. Clean, shallow pans, with clean crocks well placed in them to ensure good drainage, must be provided. After placing some moss or, for preference, half-decayed leaves on the crocks, three-parts fill the pan with the compost, which should consist of sifted loam two parts, leaf-soil one part, and sandy peat one part; failing the peat, add more leaf-soil. Press down the compost a little, leave a smooth surface, then water it through a fine-rosed watering-can. Sow the seeds about two hours afterwards, and slightly cover them with silver sand and a small quantity of light soil. Put a square of glass and a sheet of brown paper on the pan, and place the latter in a warm corner in the hothouse or in a frame on a hot-bed. The soil must not be watered immediately the seeds are sown, and afterwards, when water is required, immerse the pan in a vessel of tepid water and so allow the latter to soak upwards. If the soil is watered overhead many of the small seeds would be seriously disturbed, if not washed out entirely.

Transplant the seedlings in other pans and then pot them separately. Use a similar kind of compost to that recommended for sowing the seeds in for the repotting of the young plants, but in a rougher state, and also add a small quantity of well-rotted manure and old mortar rubble. If the plants are duly repotted and kept in a genial atmosphere, they will not flower prematurely, but will grow along sturdily, and make fine robust specimens.

When well established in the pots the plants will require plenty of water in order to keep them in good health, but it is necessary to provide ample drainage, as stagnant water would soon cause the foliage to become sickly, and the leaves are almost as beautiful as the flowers.

AVON.



A HANDSOME MAIDENHAIR FERN: ADIANTUM GLOIRE VAN MOORDRECHT.

AN INTERESTING NEW MAIDENHAIR FERN.

ON page 71 of our issue for the 11th ult. we published particulars of a new Maidenhair Fern named Adiantum Gloire Van Moordrecht, and we have now much pleasure in giving an illustration of the plant as exhibited before the Royal Horticultural Society on January 31 last. On that occasion it was the most interesting plant in the hall, owing to the fact that it was declared to be a sporeling from the well-known Adiantum Farleyense, which is a variety of A. tenerum, and which had hitherto been regarded as barren. At the meeting of the Royal Horticultural Society held on the 14th ult. Mr. H. B. May stated that the raiser of this new variety, Mr. J. Bier, had told him that it appeared as a chance sporeling among a batch of sporelings of Adiantum scutum, which, according to the "Kew Hand List," is also a variety of A. tenerum. So far as can be judged from the facts now before us, this newcomer can scarcely be regarded as a variety of A. Farleyense, which in itself is only a variety and not a species, but rather as a distinct and beautiful variation of A. tenerum.

ACACIAS IN THE GREENHOUSE.

MANY of the Acacias that form such a notable feature of Australian scenery attain the dimensions of good-sized trees, and for the development of such as these an exceptionally large structure is, of course, necessary. Some, however, will flower profusely when quite small, and can therefore be well accommodated in an ordinary greenhouse, in which building they are of great value for decorative purposes during the first three months of the year, or in some cases earlier than that.

One great advantage possessed by these Australian Acacias is that, generally speaking, they are all of comparatively easy culture, and may be grown in pots or tubs or planted out in a prepared bed in the greenhouse. They all, with the exception of Acacia Drummondii and A. platyptera, will thrive in what may be regarded as ordinary potting compost, such as a mixture of loam, peat and sand; but the last-named species require a larger amount of peat than the others. Delightful little examples of A. Drummondii can be grown in pots 5 inches in diameter, and in this size may often be met with in Covent Garden Market, where they find a ready sale. Among those that can be especially recommended for ordinary greenhouse culture are the following:

Acacia armata.—A tree in stature, yet it can be successfully flowered in pots 6 inches to 8 inches in diameter. It is of a dense, stocky habit, the branches being thickly clothed with dark green, oval-shaped phyllodes, as the false leaves are termed. The globular masses of rich golden yellow flowers are freely borne, and are very conspicuous against the background of dark green foliage. As a rule this does not flower till the month of March.

A. baileyana.—The leaves of this have the same glaucous tint as those of the well-known A. dealbata, the Mimosa of the florists' shops. They are, however, bipinnate in shape, and the flowers

are freely produced on comparatively small plants. Under liberal conditions this attains a considerable size, though, as already stated, it will produce its little roundish heads of golden blossoms while quite small. It also makes a good roof or rafter plant.

A. cultriformis.—Another species with a glaucous hue, but this does not produce true leaves at all, their place being supplied by phyllodes of a curious shape, somewhat resembling the blade of a pruning-knife. The flowers are golden yellow and very freely borne. It may be grown in a pot, or if planted out and trained to a pillar it is very effective.

A. Drummondii.—This is among the smaller-growing of the Acacias and an exceedingly pretty plant. It is of rather slender growth, and, in order to ensure a bushy specimen, the young plant should be stopped once or twice during its early stages. The small bipinnate leaves are deep green in colour, while the flowers, which are freely borne in short, partially drooping racemes, are of a pale yellow tint.

A. hastulata.—Another small grower, and one quite distinct from any of the rest. It is of dense growth and produces long shoots somewhat after the manner of those of an Epacris, but thickly clothed with small triangular-shaped leaves. From the axils of these leaves the tufts of cream-coloured flowers are produced, and so thickly that each shoot forms quite a wreath of blossoms. This Acacia is more generally met with in nurseries under the specific name of cordata.

A. lineata.—A pretty, neat-growing bush clothed with tiny narrow leaves. It may be had in bloom early in the year, the little golden balls being borne in great profusion. It is fully entitled to a place among the best of the small-growing members of the genus.

A. longifolia.—When growing freely this pushes out long Willow-like shoots, and the dark green phyllodes are somewhat suggestive of the leaves of this shrub. The flowers of A. longifolia are disposed in upright spike-like racemes, and are of a light yellow tint. They are produced from the axils of the leaves.

A. ovata or *obliqua.*—For pot culture this has within the last few years become very popular. Such a fact is not at all surprising, as it forms a freely-branched specimen with neat, deep green foliage, and bears its rich golden yellow balls in great profusion. Furthermore, it can be had in bloom early in the season.

A. platyptera.—This is interesting owing to its peculiarly winged stems, and valuable from the fact that its rich yellow flowers are borne during the autumn and early winter months. It is less vigorous in its root action than most of the others, and needs a little more peat in its soil and additional care in watering.

A. pulchella.—A pretty species with slender, somewhat spiny shoots clothed with small bipinnate leaves of a bright green tint. The flowers, borne in globular heads, are of a golden hue. This forms a dense bush, and when in flower is exceedingly attractive.

A. riceana.—Totally unlike any of the others, this forms a pleasing pot plant; but at the same time it is seen to greater advantage when trained to a roof, as then the thong-like shoots hang down for a long distance. In A. riceana the phyllodes are small, very narrow and pointed, while the flower heads, borne in drooping racemes, are creamy white.

A. verticillata.—Though it may be flowered well as a pot or tub plant, this is seen at its best as a large planted-out specimen. Nevertheless, it is very effective under more restricted conditions. The phyllodes are narrow, sharp pointed and of a deep green tint, while the yellow blossoms, whose fragrance is very noticeable, are freely borne.

A. dealbata, being so popular in a cut state, is often enquired about, but though the compound leaves are very pretty when the plant is small, it must attain a large size to flower freely.

Among other desirable features possessed by these Acacias is that they may be stood outside during the summer months, thus leaving the greenhouse free for other occupants whose flowers are then produced. When repotting is needed, it should be done as soon as possible after the flowers are over; but large plants will stand for some years without repotting, the necessary stimulus being supplied by liquid manure, or one of the concentrated plant foods now so popular, during the growing season. H. P.



A NEW ORCHID AT GLASNEVIN: CŒLOGYNE MOOREANA.

A NEW ORCHID.

(CŒLOGYNE MOOREANA.)

This new Cœlogyne is one of the most beautiful of recently-introduced Orchids. The flowers are a pure and chaste white, opening during December and January, so that in the future, when more plentiful, it will be an acquisition to many collections. When collecting for Messrs. Sander, Mr. W. Micholitz discovered this new species on the Lang Bian range in Annam, at about 4,300 feet elevation. It flowered with Messrs. Sander and Sons at St. Albans in December, 1906, and at the same time at Glasnevin. A first-class certificate was awarded to it on December 10 of that year at the Royal Horticultural Society's meeting. It is named after Mr. F. W. Moore of Glasnevin. The flowers are like the well-known Cœlogyne cristata, with the numerous yellow hair-like appendages on the disc of the lip, but they have more substance, consequently keep fresh for a longer time. The flower-scape is stiff and erect, and bears from three to eight flowers, according to the strength of the plant. The leaves are from 8 inches to 16 inches long and about 1¼ inches wide, almost upright. The plant is figured in the last volume of the *Botanical Magazine,* t. 8297, and the photograph shows the plant from which the original description and the plate were prepared. C. mooreana thrives under the conditions usually given to its better-known relative C. cristata. C. F. Ball.

TREES & SHRUBS.

TREES FOR LAWN SPECIMENS.

Owners of gardens are sometimes at a loss to distinguish among the many trees enumerated in nurserymen's catalogues those which are best adapted for planting in isolated positions on lawns, either for the purpose of providing shade or for landscape effect. Such trees ought not to be planted in sufficient numbers to detract from the effect of the lawn; neither should two trees be planted close enough for one to interfere with the development of the other. Small lawns are frequently better without trees, and if shrub-life is required it should be confined to beds or isolated low-growing shrubs about the outskirts. Any tree planted to form a specimen ought to be given the best possible chance of success. To ensure this the ground should be properly prepared previous to planting. Holes 8 feet in diameter should be trenched to a depth of from 18 inches to 24 inches, and if the soil is poor it must be improved by the addition of good material, loamy soil being preferable to manure. The ground must be allowed to settle previous to the insertion of the trees, which must not be planted deeply. Keep the surface roots near the top of the soil; it is seldom that more than a depth of 1 inch of soil should be allowed to cover the top roots.

Catalpa bignonioides is excellent for the purpose. Its large, heart-shaped leaves are ornamental, while its inflorescences of white, yellow and purple marked flowers are very conspicuous in July. It forms a spreading head and gives plenty of shade. The Southern and Midland Counties are more suitable for it than the North.

The Maidenhair Tree (Ginkgo biloba) is another excellent subject for an isolated specimen. It is of upright habit and of more use for landscape effect than for shade. Its curious, flattened leaves, which resemble a gigantic pinnule of a Maidenhair Fern frond, make it of peculiar interest and distinct from any other tree.

The Golden Larch (Pseudolarix Kæmpferi) is suitable for planting where a tree of slow growth is required. Closely allied to the Larch, it is

entirely different from that family, and may be readily distinguished by its longer, flattened leaves and its larger and more rounded cones. Its leaves are of a peculiarly delicate shade of green when they first appear, and of a lovely golden colour previous to falling in autumn.

The Holm or Evergreen Oak (Quercus Ilex) has much to commend it as an isolated specimen, but it is more suited to a position about the outskirts than in the centre of a lawn, for the grass does not thrive beneath it; hence it is necessary to have a bare patch of ground or a mass of Ivy or some other shade-bearing shrub for a covering. Magnolia grandiflora forms a handsome bush for the Southern Counties, while other kinds of Magnolia, such as M. conspicua, M. soulangeana and M. Fraseri, are excellent where comparatively small trees are required. The Tulip Tree (Liriodendron tulipifera) is another worthy member of the Magnolia family.

Tilia dasystyla and T. petiolaris are two excellent Limes for planting as lawn specimens. Their glossy, dark green leaves are always ornamental, while they keep green until late autumn, which cannot be said of the common Lime.

Quercus Mirbeckii and Q. velutina var. rubrifolia are two very ornamental, large-leaved Oaks which are not seen often enough. The former retains its leaves almost to the end of a mild winter. Another Oak which demands special attention is the Knap Hill variety of Q. coccinea. The foliage of this variety dies a brilliant shade of red. It has the advantage of hanging for several weeks after the autumn colour has appeared.

The Double Scarlet Thorns form handsome specimens, as also do several species of Pyrus, such as P. spectabilis, P. salicifolia, P. Aucuparia and P. Aria var. majestica; but they are more fitted for specimen trees in a shrubbery than for a lawn, for after the flowers are over the trees are not of sufficient general interest to warrant them the most prominent positions in the garden. Several double-flowered Cherries, on the other hand, are suitable for lawns. Good ones are Prunus serrulata, P. Pseudo-cerasus and P. Avium flore-pleno.

A small-growing tree of considerable interest is met with in the Judas Tree (Cercis Siliquastrum). Its legendary associations make it interesting, while its rounded leaves and rosy purple Pea-shaped flowers are ornamental.

The Red Horse Chestnut forms an ornamental tree of a shady character, while Robinia Pseud-acacia is worth growing, both on account of its light, graceful foliage and white flowers.

For large lawns the various Cedars are imposing, but they must have lots of room to be able to do themselves justice. The same may be said of the larger-growing Pines, of which Pinus excelsa, P. Laricio, P. Pinaster, P. Pinea, and P. insignis in the Southern Counties, are specially worthy of mention.

The various trees of weeping habit give good scope for selection; the best are all suitable. Hollies, Thorns, Ashes, Elms and Beeches may be obtained. Space will not, however, allow of a longer list being given, but the foregoing will serve as a guide to people who wish to plant a few trees.

THE TOWN GARDEN.

SINGLE-FLOWERED CHRYSANTHEMUMS FROM SEEDS. One of the problems confronting the amateur with a good-sized garden is that of knowing how to make it gay with border flowers during the autumn months. Of course, there are perennials, such as Michaelmas Daisies and Sunflowers, galore, but these do not always afford that degree of brightness or variety beloved of so many town-dwellers. Hence I would suggest to all having a cool greenhouse or frame the desirability of raising the single-flowered Chrysanthemum from seeds as one way of adding much beauty and variety to that which a small garden might contain. Though fully cognisant of the wealth of blossoms seedling-raised plants afford as against cutting-raised plants as often grown, I was forcibly reminded of the fact afresh on seeing a large houseful of plants in flower in the trial grounds of Messrs. Sutton and Sons, Reading, last season. They had been removed to shelter for seed-saving purposes and not from lack of hardiness, and presented an object-lesson of much value.



SINGLE CHRYSANTHEMUM GROWN AS A POT PLANT FROM SEED.

RAISING THE PLANTS.—This operation presents but few difficulties, the seedlings appearing in about three weeks from the date of sowing. Boxes or pans are best in which to sow the seeds, which should be given plenty of room from the first. Failing this, the early pricking off of the seedlings must receive attention. The greatest essential of all is that the seedling plants be kept growing steadily and continuously, as once the stem becomes contracted, any future development will be materially hindered. This applies to all classes of plants with soft stems, and is as applicable to the cutting as to the seedling-raised plant. Room for development, therefore, in the early days and weeks of the plant's existence must not be accepted as a mere figure of speech. It is an essential to be regarded at its fullest worth.

WHEN TO TRANSPLANT.—A good time to do this is when the young plants assume the third or fourth rough leaf, at which time the seedlings may be transferred singly to 3-inch pots or be pricked out into other boxes or pans 2 inches apart each way. In the small pot the plant is more liable quickly to dry up; hence the greater mass of soil contained in a 3-inch-deep box or pan would to some extent be a safeguard against this. The soil should be of good quality, though not of excessive richness, and firm planting, the precursor of a short-jointed, consolidated growth, should be the order of the day. For the seedling plant a more open soil mixture is preferred, say, one composed of loam three parts, with the remaining part equally of leaf-mould, sand and finely-sifted manure.

WHERE TO GROW THE PLANTS.—For three weeks or a month subsequent to the appearing of the seedlings cool greenhouse treatment should be resorted to, after which a cold frame will be much the better place. In many ways, indeed, the cold frame has a decided advantage over the greenhouse, since the dry, arid conditions not uncommon to the latter are quite foreign to the former at this season of the year. In certain circumstances, *i.e.*, where the soil is raised above the surrounding level, the seedlings would benefit by being planted out, thus ensuring them against drought or any possibility of check owing to neglect. Should the plants be preferred for

GREENHOUSE DECORATION, for which they are eminently well suited, the planting out system is not recommended, and in a general way liberal pot cultivation from the start will be found to promote better growth and flowers. But whichever method of cultivation is adopted, nothing short of constant care and watchfulness is calculated to produce the best results, and, given the room for an early development, a further essential is attention to watering. Indeed, a large number of failures are traceable to insufficient watering alone. Naturally, the town gardening amateur when growing pot plants of such things is severely handicapped by his daily absence from home, and, seeing that the watering of his plants is a daily necessity, he may prefer to seek relief from work he cannot adequately perform by adopting the planting-out system to which I first alluded, and in which circumstances an occasional watering in dry weather will suffice.

S. N. N.

GARDENING FOR BEGINNERS.

PERPETUAL-FLOWERING CARNATIONS OUTDOORS.

ON one or two previous occasions notes have appeared in THE GARDEN drawing attention to the value of some at least of the numerous varieties of the Perpetual-flowering Carnations for tivation in the open garden. Although a few wers have tried the plant outdoors, this method



—A PLANT OF CARNATION MRS. H. BURNETT AFTER IT WAS CUT DOWN IN MARCH, 1910.

cultivation is far from general; yet it is quite nple and, therefore, specially suitable for the ginner.

That this race of Carnations is much hardier than s generally supposed is proved by the accomnying illustrations, which show a plant of Mrs. Burnett under widely different circumstances. g. 1 is from a photograph taken towards the end March last year, and represents the plant just the old growths had been cut hard back. This rticular plant, along with several others of fferent varieties, had flowered all through the mmer of 1909, being planted out of a 6-inch pot rly in May of that year, and stood quite in the en and unprotected during the winter of 09-10, notwithstanding the fact that 15° of st were registered on more than one occasion. addition, it had to be moved in February of last ar owing to some alterations that had to be made the garden, but it pulled through the ordeal fely. Previous to the time when the growths were t hard back the plant presented a very dejected pearance, and, unfortunately, a photograph it taken in that condition was only a very alified success.

After the cutting back the plant was given a nall handful of Low's Carnation Manure as a sort top-dressing, and subsequently left well alone. the beginning of July of last year it was again wering freely, and Fig. 2 is from a photograph ken during the last week of that month. The ral display was continued until severe frosts t a check to it about the second week in October. Any amateur with a cold greenhouse might at present time purchase a few large plants in pots, stipulating that they shall be carrying a fair number of flower-buds. These, if placed in the cold greenhouse, will give a few blooms almost at once, and will continue to do so until the time for planting out, which is about the first or second week in May. If the soil has been previously well dug and manured, turn the plants out of their pots, disturbing the roots as little as possible, and plant them so that the top of the ball of soil and roots is covered by about 1 inch of the ordinary garden soil, which must be made firm. Water in well, and also give the plants copious drinks of clear water, and occasionally weak liquid manure, during the growing season.

If planted properly they will commence to open their flowers a week or two after they are put out, providing, of course, that buds were already formed, and continue to do so well into the autumn. The quantity of flowers that one well-grown plant will give during the course of a summer is very large indeed. If the plants survive the winter, as many of them doubtless will, the growths should be cut down as already advised. A position somewhat sheltered from strong winds ought to be selected for this type of Carnation, as the shoots are liable to get rather badly broken by wind. Varieties which I have found to do well outdoors are Mrs. H. Burnett, Winsor, Britannia (perhaps the best of all), Rival, White Perfection and Lady Bountiful. H.

TRANSPLANTING WALLFLOWERS.

IF possible, these plants should be put out in their flowering beds in the autumn, so that they may have an opportunity of getting established and growing sturdily through the winter months. It is not convenient, though, for all cultivators to carry out this work in the autumn, and so spring planting must be done. Those cultivators who have taken the trouble to transplant the seedlings in nursery beds in the autumn will, however, have some nice sturdy specimens to deal with this spring. Plants left in the seed-beds will not possess many roots, and if very great care be not taken in the lifting and replanting of them, they will only make moderate growth and bear a few small flowers. For these plants a naturally light soil must be made fairly firm before they are put in, and it will be advisable to enrich such soil by adding rotted manure freely. Another point must be noted, too—that of close planting, so as to secure a full bed of blossom in each instance. There will be only a few branches on the plants and a small percentage of them will bear flowers, the central shoot being the only one to possess moderately strong blooms. B.

HOW TO GROW EARLY CELERY.

IT is a much more easy matter to grow fine, sturdy plants later in the year than at the present time; but in order to obtain early crops we must sow seeds early and do all that is possible to get the resultant plants forward, while at the same time growing them sturdily. Too much coddling or forcing of the growth while the plants are very young would probably mean a big loss later on through numbers of them "bolting," running to seed, or becoming too pithy, and thus worthless in another form. Every beginner likes to grow early Celery plants well, but the inexperienced may grow them too luxuriantly. The writer made this mistake many years ago, but he profited through the failure. I will say at once that the chief cause of failure is the subjecting of the young plants to too much bottom-heat. A little is certainly beneficial, especially to hasten the germination of the seeds and until the resultant seedlings possess two rough leaves. Put a nice light compost in a flower-pot or pan; sweet leaf-soil, loam and sand in equal proportions will answer the purpose. Sow the seeds very thinly, then the young seedlings will grow strongly, especially if they are kept near the roof glass, which will prevent the plants from being drawn to the light. SHAMROCK.



THE SAME PLANT IN JULY OF LAST YEAR.

PLANTING AND STAKING FRUIT TREES AND BUSHES.

DURING recent years a great controversy has raged around the question of planting fruit trees and bushes. Experiments conducted at the Duke of Bedford's Experimental Fruit Farm at Woburn certainly indicate that too much importance has been attached to orthodox planting in the past; but we must, at the same time, recognise that this orthodox planting has favourably withstood the test of time and given good results for many decades, while the heterodox methods employed at Woburn, which have so far given good results, are as yet comparatively in their infancy. Whether the trees that have, according to orthodox ideas, been very badly planted, and which up to the present have given good results, will continue to do so for as long a period as others more carefully planted remains to be seen. Until this is decided, I advise the beginner in fruit-growing to adhere to the old and well-tried methods which have given such good results in the past and are likely to do so in the future.

When trees are received from the nursery their roots should be in a moist condition, *i.e.*, if they have been well packed and not unduly delayed in transit. If the trees have been freely transplanted in the nursery, their roots will be of a very fibrous character, and such examples will transplant at this season with but little check. If any large roots are found to have broken or bruised ends, these should be cut off with a sharp knife, making the cut from below upwards and in an outward direction. If the trees cannot be planted at once, a trench should be dug, the roots laid in and then covered with soil, treading this firmly; and if the weather is likely to prove frosty, cover the soil over the roots with the straw which has been used for packing. In the event of the ground being frozen hard when the trees are received—which is not very likely unless frost has developed suddenly, as a good nurseryman will not send trees during severe frosty weather—it is best to keep them packed and place them in a shed or other cool place and cover the roots well with mats, litter, or even old sacks. Trees will keep well in this way for a week or two, but the sooner they can be got in the ground the better.

There is no doubt that the best time of the whole year for planting is early in November, as by so doing the trees get well established by the following spring. New roots are formed during the winter months, a fact that is not usually recognised. Trees and bushes may, however, be planted at any time from early November to the end of March, providing the weather is suitable and the soil not so wet that it cannot be broken up freely when placed around the roots. Failing November or the first half of December, I prefer to wait until the middle or end of February, or the first week in March, before planting.

Regarding the actual planting, a mistake that is very frequently made by amateurs is to place the trees either too deeply or not deep enough—usually the former. No hard-and-fast rule can be given regarding this, but the uppermost roots ought not to be more than 3 inches below the surface nor less than 1½ inches. A good plan is to plant about an inch deeper than the tree has been when growing in the nursery. It will be necessary to take out holes of sufficient diameter to allow the roots to be spread out to their full length, the depth, of course, varying with the size of the tree and the quantity of roots it possesses. When placed in the hole the tree should be held upright by one person while another fills in the soil, using the finest obtainable for placing between the roots. It will be found that some of these emanate from the main root or stem at, say, 6 inches from the surface, others at 4 inches, and so on. On no account should any of them be placed lower than their natural level, and in the case of very heavy soil they may with advantage be raised somewhat. Shake the fine soil well between them as the work of filling in proceeds and make the whole firm. Previous to placing the tree in the hole, a stake should have been firmly driven in where such support is likely to be required; or in the case of cordons or other trained trees to be grown on wires, these should, of course, have been first fixed in position. Standard and half-standard trees invariably need stakes for the first few years; but bushes and pyramids, if well rooted and properly planted, will generally support themselves. Stakes at least 2 inches in diameter should be used, and that portion which goes into the ground, and for a few inches above the surface, ought to be coated with coal-tar.

The actual tying of the tree needs some care. Stout tar twine is a good tying material, and to prevent it cutting into the stem of the tree a piece of old sacking should first be wrapped round the stem, allowing this to also come between the stake and the tree, so that there is no danger of the latter being chafed. We are frequently told that tying must not be done tightly, so as to allow room for the stem to swell; but this I have found is often wrongly interpretated by amateurs, who go to the other extreme and allow too much room, with the result that the tree sways about and the support is of very little assistance. The tie should be made comfortably tight; then an inspection once or twice a year will prevent any damage being done by the stem swelling.

The distance apart to plant is important. Far too often one finds beginners planting trees and bushes so that they at once nearly cover the ground, and a few years later become a veritable thicket. The distance for cordons on wires is, in rows, 6 feet to 8 feet apart, and 15 inches to 18 inches between the single cordons. Standard trees of Apples, Cherries, Pears and Plums ought to be 30 feet apart each way, 5 feet less being allowed for half-standards. Of course, between these bush fruits, such as Gooseberries, Currants and Raspberries, may be grown for some considerable time. For bush and pyramid trees 12 feet apart each way is a good distance; but 3 feet more is none too much. Gooseberries and Currants may be planted in rows 6 feet apart, allowing 4 feet between each two bushes. Raspberries are usually grown in rows 5 feet apart, and frequently three plants are put in about 18 inches asunder to form a triangle in the row. Where this is done, 3 feet should be allowed between the outsides of each two triangles. Where plants are put in singly in the row, 2 feet apart is a good distance. Nuts are usually planted in rows 12 feet to 15 feet apart, 6 feet to 10 feet being allowed between the plants in the row, the former distance for low, bushy specimens and the latter for half-standards. Fan-shaped and horizontally-trained trees against walls and on wires should be 10 feet to 12 feet apart. In all cases the trees or bushes in one row should alternate with those in the next, as indicated herewith *****. A plantation will then appear to be in straight lines from whichever position it is viewed, and, what is more important, each tree will have more space to develop. At the outset of this article reference has been made to the Duke of Bedford's Experimental Fruit Farm, and before concluding it is advisable to refer to trees planted in grass. It has been proved at the above farm, and the writer has proved it conclusively elsewhere, that it is highly detrimental to fruit trees to allow grass to grow over their roots, particularly when in a young state. Trees that are planted in grassland should have the turf removed for a distance of at least 4 feet all round the stem and the soil there kept well broken up. It would occupy too much space to discuss here the reasons for this, but any sceptics can soon prove the statement for themselves by allowing the grass to grow round a few trees and comparing results with others after two years. H.

THE ROSE GARDEN.

LOFTY ARCHES OR PERGOLAS OF ROSES.

THE amateur is often in a dilemma as to what height Rose arches or a pergola should be. To say the pillars or arches should be 12 feet out of the ground seems at first sight an extravagant height; but let anyone inspect a well-established pergola where such forethought of providing lofty supports has been exercised, and it will be found the height named is none too much. I had the great pleasure of viewing the magnificent pergola at Warley Place which Miss Willmott has erected there, and it was a real treat to pass under such a pergola, where the various subjects could be seen in all their well-developed beauty. Even 12 feet was not tall enough for some of the Roses, and their growths were allowed to run over the top or droop down in such a manner that the beauty was not lost to view, as is too frequently the case. Of course, to have the pillars of this height they must be of substantial stoutness; but it pays in the end to start well, even although for a time the erection may be voted ugly.

When well clothed with the many beautiful subjects available, what a feature in a good-sized garden such a pergola would be! At Warley Place there were some grand specimens of that fine Boursault Rose Inermis Morletti, which is known on the Continent as Mme. Sancy de Parabere. They had long since reached the summit of the 12-feet supports, and their growths were drooping down with a gorgeous display of the lovely blush pink blooms. These are the kind of pergolas we want for most of the beautiful wichuraiana tribe, whose growth so often causes concern as to what to do with it. In the National Rose Society's "Rose Annual for 1910," Mr. Molyneux, in his graphic description of what is perhaps the finest Rose garden in the kingdom, viz., that of Mr. Tate at Downside, Leatherhead, says that "a huge pillar, shaped tripod fashion, formed of poles some 30 feet high, with a circumference at the base of over 50 feet, was so covered from head to foot with some dozen plants of the beautiful wichuraianas (literally thousands of delicate yellow flowers were out) that the whole formed a compact mass of foliage and bloom." I mention this to show what is really wanted to deal with the very prodigious-growing Roses of the wichuraiana class, but few gardens could have poles 30 feet high erected. Of course, we can have recourse to chains or ropes, and these are what should be provided for when we plant this tribe, allowing each plant abundance of space.

I am well aware the question of wind-swept aspects has to be considered, and, of course, in that case one must needs modify the height of the arches; but in well-sheltered gardens they might often be double the height they usually are. P.

DWARF STANDARD ROSES.

I SHOULD like to put in a plea for the short standard Roses. In the course of the year I visit numbers of Rose gardens, and very rarely do I find these

interesting little trees; yet I feel sure if they were more extensively planted they would afford much pleasure. Roses such as Crépuscule, William Allen Richardson, Lyon Rose, Laurette Messimy—indeed, any free-flowering and free-growing sorts—have a delightful appearance as little tree Roses with stems from 1½ feet to 2 feet in height. It is a mistake to think that the taller the Briar the better will be the growth of the head. I would rather say the reverse would be more correct. Indeed, were I restricted to any special height, I would select 2 feet for all my Roses. They are far more easily protected in winter if protection is necessary. All exhibitors are agreed that Tea Roses and many of the Hybrid Teas are superior in quality of blossom to the standard Briar, and for all practical purposes the half-standard is equally as good as the taller standard. Then again, if we must bud a few poor-growing sorts upon these hedge Briars for the sake of getting extra fine blooms, they appear less incongruous on a short stem than on a tall one, and no one can deny the value of the hedge Briar for yielding fine quality blooms. Another point in their favour is the peculiar suitability of such short Briars for budding the charming Polyantha Roses upon. One of the prettiest floral pictures is produced by a short standard of the delightful little Rose Eugenie Lamesch, or Leonie Lamesch, and scarcely less lovely are short standards of Mrs. W. H. Cutbush, or Katherina Zeimet, and doubtless the Orleans Rose will soon be largely propagated in this form. I love to see these delightful little Roses used as dot plants among beds of the same tribe or allied tribes, such as the Monthly Roses, for they produce an almost constant display from June to October. Their usefulness is not confined to the outdoor garden, for they make very useful pot plants and can be employed with great effect by the decorator. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Bulbs for name and treatment (*Bury*).—It is difficult—indeed, well-nigh impossible—to positively name bulbous plants without flowers, but we have little doubt that those sent are Belladonna Lilies. They are far more satisfactory if planted out than when grown in pots, provided you have a good warm, sheltered border for them. A border about 2 feet wide at the foot of a greenhouse wall facing due south is an ideal spot for them. It must be well drained, deeply dug, manured, and the bulbs planted at such a depth that there is about 6 inches of soil above the top of the bulb. The constitution of your bulbs has been greatly weakened by unsuitable treatment, and they will now take about three years to attain flowering strength. Belladonna Lilies may also be grown in pots, though they are not often treated in this way. When potting, the soil should consist principally of good loam, well-decayed manure and sand. The Belladonna Lily naturally produces its flower-spikes in the autumn, after which the leaves make their appearance. Throughout the winter the plants must be kept quite safe from frost, and in spring, when the cold weather is over, stand them outside in the hottest and sunniest spot available. They must be kept well watered till the leaves die down, when a lessened supply should be given, but do not keep them absolutely dry. As the flower-spikes appear give plenty of water.

Quick hedge (*H. T.*).—The plants should be cut hard down to form a strong, impenetrable hedge right from the base. Vigorous plants such as you appear to have planted nearly always leave a thin bottom, and thus the fence loses at least half its value.

Veronicas overgrown with moss (*County Antrim*).—We should imagine a rather close pruning of the Veronicas and the weeding out of the moss to be the best thing. The pruning would remedy the excess of growth, and by applying a mulch of good soil where the moss was cleared away a general improvement should result. The presence of so much moss indicates damp, and unless this can be remedied the moss will appear again. A deep mulch of sand might check its progress for a time, but no poisonous liquid could be used in the circumstances. The plant appears to be Veronica prostrata.

Pæonies failing to flower (*Pan*).—The failure in your own case may be best summed up in the not infrequent verdict, "shock to the system," since it is too much to expect September-planted roots to flower in the following June. Your plants will be all right in time, and a little patience only is required. The only fertile causes of failure to the buds of Pæonies when established are fungus just below the bud and late spring frosts, the last being responsible for much when the plants are in exposed places. We thought it nothing at one time to wait three years before getting a good flower, though an early flowering would greatly depend upon the strength of the individual crowns. As the plants are healthy, you have nothing to fear, but simply to wait. We have never known the rains to spoil the flower-buds. Cold autumn rains on the expanded flowers quickly mar their good effects.

Borders adjoining a house (*E. C. Ashmore*).—With reference to the sample of soil sent from Plot A, it appeared to be of a very poor description. Plenty of either Wakeley's Hop Manure or well-decayed stable manure should be given and the plot deeply dug. If fresh loam could be added to bring the level of the border up to that of the path, so much the better; then there is no reason why Violas should not do well, but there is hardly sufficient sun for ornamental Beet. Herbaceous Phloxes would also be suitable for such a position, as well as the many forms of long-spurred Aquilegias. Borders B and C could be planted with Canary Creeper (Tropæolum canariense) to hide the fence, along with Day Lilies (Hemerocallis), Fuchsias or hardy Ferns, which would stand the small amount of sunshine they would get providing they obtained plenty of moisture and the ground was deeply worked. All the plants you tried require a more open position in full sun.

Plants for pondside rockery (*H. P.*).—We are not sure if we rightly glean your requirements. You say the "plants must be low" while suggesting such things as Rodgersia and Cotoneaster. In each case these require much room superficially. These plants would do quite well, and, if not considered too large in the circumstances, the following might serve as companions: Hepaticas, Saxifraga peltata, S. granulata plena, Viola cucullata, Corydalis nobilis, Epimediums, Primula rosea, P. denticulata, P. cashmeriana, P. japonica, P. pulverulenta, P. Sieboldi in variety, perennial Candytufts, Iris pumila in variety, dwarf Phloxes and the like. Should the spaces be of large size and opportunity present itself to introduce rock trailing subjects, we recommend Zauschneria californica, Dryas octopetala, Polygonum affine, P. vaccinifolium, any of the Aubrietias, Campanula muralis and Coronilla varia. As the hardy Heaths are a success, you may select of these at will, the Sabine and the Pernettyas being alike valuable among a large number.

Preparing soil for Sweet Peas: Choice of situation (*H. T.*).—You are late in seeking advice as to the best method of preparing your soil for Sweet Peas. Such strong land as yours appears to be, overlying a clay subsoil, should have been bastard-trenched to a depth of at least 18 inches, manured with horse-manure in the second spit at the end of last November, and the surface left rough and coarse with a view to securing the full benefit of the weather. Had you adopted this course, the frosts which we have experienced would have affected the soil to such a degree that by the end of the present month you could have quickly and easily secured a perfect tilth. You must now proceed on similar lines to those briefly outlined above, but you must use the utmost endeavours to break down the top to some extent. Put the work in hand immediately. It is safe to go on the ground, because we shall get, it is sincerely to be hoped, frosts of sufficient severity substantially to assist in soil amelioration. Do not spare the rotted manure, but incorporate it with the moved soil, and do not work it down into trenches. Generally speaking, an open situation is to be preferred; but partial shade is undoubtedly advantageous for all colours which have a tendency to burn when fully exposed to the sun.

Sweet Peas (*E. H. Johnson*).—Of the four varieties named three have been traced easily, but the fourth has not been found. Distinction is white with a pink edge; it was raised by Battes. Wincome is pink suffused with heliotrope; it was raised by William Deal. Shahzada is maroon; it was raised by the late Henry Eckford, and has long been superseded by superior varieties. Joseph Baxter we cannot find, but some of our readers may know it and send a description.

ROSE GARDEN.

Rose Marechal Niel in heated greenhouse (*Novice*).—The leaf sent is one of last year's production, and the plant will soon shed these. The black sediment is the excreta of the aphis. You should well syringe the plant with a solution of carbolic soap, using Lifebuoy Soap at the rate of about half a bar to four gallons of water; or, if you prefer to obtain a prepared article, we can recommend Abol, which may be obtained from any horticultural sundriesman. Pick off the worst of the leaves similar to the one sent, and well syringe the others twice a week. To rid the plant of the green fly, fumigate your house with McDougall's Tobacco Sheets, one of which is sufficient for a space of 1,000 cubic feet.

Artificial manure for transplanted Roses (*Mount Argus*).—Yes; you may give the plants a light application of some good artificial manure in May and June. Wakeley's Hop Manure made into liquid form is very good, but it will be best to apply it in a weak state rather than too strong. See that the plants have a good watering with plain water first, or else apply the artificial liquid after a good rain. A good handful of bone-flour or quarter-inch bones given to each Rose now would be an excellent plan. Those already transplanted could have it applied by removing a little soil round about each plant and, after the bones have been applied, covering them with the soil.

MISCELLANEOUS.

About seeds of various plants (*A. L.*).—Abrus precatorius, which you refer to as Black-eyed Susan, has several common names, two others being Rain Tree and Crab's Eyes. The species is widely distributed throughout the Tropics, and the scarlet, black-eyed seeds are in great demand in many foreign countries for making into charms and various fancy articles. Under cultivation it is of no great decorative merit, but is frequently grown in stove houses for the sake of its reputed character of closing its leaves at night and on the approach of rain. From the latter habit the name of Rain Tree has originated. It is of climbing habit. Cæsalpinia pulcherrima is a tropical tree with handsome foliage and showy flowers. It is doubtful whether you will have much success with it as a stove plant, however, as it does not flower until it has attained a considerable size and age, and it is not possible to cultivate it successfully as a bush. C. Gilliesii is a handsome species from South America. Its finely-divided leaves are of elegant outline, and it bears upright terminal racemes of large yellow flowers with very prominent red, thread-like stamens. If you can give it a position against a high wall out of doors with a south aspect, it is probable that you will get it to flower, for it blossoms regularly in such a position near London. Loamy soil suits it. Babiana purpurea is, correctly, B. stricta. It is a showy bulbous plant belonging to one of the sections of the Iris order. The species grow but a few inches high, and succeed best in a sunny greenhouse. We are sorry to say that we have been unable to trace the name of the Poppy you mention. Perhaps if you were to sow a few seeds in a 3-inch pot, then thin the seedlings to one and pot on as required, you would succeed with the plant. You will have to be guided about the temperature by the behaviour of the seedlings. If they elongate quickly, a cooler structure will be necessary. Should you be able to flower a plant and send us a good specimen, we will endeavour to name it for you.

Names of fruit.—*E. S. Besant.*—Adam's Pearmain. ——*Hortus.*—Lemon Pippin.

Names of plants.—*S. J.*—The seeds are: 1, Medicago species, probably maculata; 2, Cicer arietinum (Chick Pea). No ornamental use.——*L. G. C. T.*—Carnation Rose Doré.——*Constant Reader.*—1, Abutilon Sawitzii; 2, Euonymus japonicus var. aureus; 3, Clematis indivisa.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE usual fortnightly exhibition of the above society was held on the last day of February at the Royal Horticultural Hall, Westminster. The hall was exceptionally bright with spring-flowering plants. Forced flowering shrubs, Cyclamen and Carnations were the leading features of the exhibition.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), and Messrs. Gurney Wilson, F. Menteith Ogilvie, A. McBean, T. Armstrong, J. E. Shill, J. Charlesworth, J. Cypher, W. H. Hatcher, W. P. Bound, A. Dye, W. H. White, C. H. Curtis, J. Wilson Potter, W. Bolton, J. Moss and W. Cobb

Messrs. Sander and Sons, St. Albans, staged an interesting collection comprising varieties of Odontioda Bradshawiæ, Phalænopsis stuartiana, and a variety of Cattleyas and Oncidiums. The collection was small, but of good quality, and gained the society's silver Flora medal.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, put up some nice forms of Cypripediums, such as C. A. de Lairesse, C. villosum auriferum and C. aureum Surprise, also a few varieties of Cattleya Trianæ. Vote of thanks from the Orchid committee.

Messrs. Armstrong and Brown, Tunbridge Wells, showed a very bright and praiseworthy collection. Magnificent spikes of Odontoglossum Rolfeæ and O. andersonianum were to be seen, also free-flowering plants of Dendrobium Artemis and numerous Cypripediums. Silver Flora medal.

Messrs. J. and A. A. McBean, Cooksbridge, Sussex, showed lovely sprays of Odontoglossum crispum. The centre was occupied by a handsome plant of Cymbidium insigne, carrying sixteen flowers on a strong spike. Silver Banksian medal.

A group of Cypripediums came from Edward Roberts, Esq., I.S.O., Park Lodge, Eltham (gardener, Mr. W. Carr). Many varieties of exceptional interest and good quality were shown. Quite a unique flower was seen in Cypripedium Emile Cappe, which gained a first-class certificate in Paris recently. Silver Banksian medal.

Messrs. Cypher and Sons, Cheltenham, gained a silver Banksian medal for a group of Orchids comprising Cypripediums in great variety.

Messrs. Charlesworth and Co., Hayward's Heath, were once again well to the fore among the Orchid exhibitors. A wide range of colour was to be observed among Odontiodas, Oncidiums and Cattleya hybrids, which were remarkably well shown. Silver Flora medal.

Messrs. Mansell and Hatcher, Rawdon, Yorks, gained a silver Banksian medal for a collection of Dendrobiums in great variety, including D. amethystoglossum, a new species from the Philippines.

Dendrobium wardianum, carrying masses of flowers, was the chief feature of a group of Orchids exhibited by Messrs. Stuart Low and Co., Bush Hill Park Nurseries, Enfield. Silver Banksian medal.

FRUIT AND VEGETABLE COMMITTEE.

Present: C. G. A. Nix, Esq. (chairman), and Messrs. Owen Thomas, A. Dean, E. Beckett, J. Vert, W. E. Humphreys, G. Reynolds, F. Perkins, J. Davis, A. R. Allan, G. Wythes, A. W. Metcalfe, G. Woodward, P. C. M. Veitch, J. Harrison and W. Poupart.

There was very little work for the committee on this occasion. Messrs. Sutton and Sons arranged in a tasteful manner a choice collection of Kales. The variegated forms were most attractive. The collection was awarded a silver Banksian medal.

The only other award granted by the fruit and vegetable committee was a silver Banksian medal to Mrs. Banks, Park Street, London, for a collection of bottled fruit.

FLORAL COMMITTEE.

Present: Messrs. W. Marshall and H. B. May (joint chairmen), and E. A. Bowles, J. Green, A. Kingsmill, J. W. Barr, W. J. Bean, G. Reuthe, J. Douglas, G. Gordon, R. Hooper Pearson, C Blick, W. Howe, J. F. McLeod, R. C. Reginald Neville, R. W. Wallace, C. Dixon, A. Turner, R. C. Notcutt, H. J. Jones, J. T. Bennett-Poe, Charles E. Pearson, E. H. Jenkins, H. J. Cutbush, J. Jennings, E. Mawley and W. B. Cranfield.

A very excellent group of Cyclamen persicum in variety came from the Hon. Vicary Gibbs, Elstree (gardener, Mr. E. Beckett). There were about 130 plants shown, in salmon, pure white, crimson and other shades, the large table affording an excellent display.

Messrs. Barr and Sons, Covent Garden, had a pretty grouping of alpines, bulbous plants, as Crocuses, Chionodoxas and Iris reticulata, in company with Christmas and Lenten Roses and hardy Heaths, the whole being charmingly displayed.

The Misses Hopkins, Shepperton-on-Thames, arranged a rockery exhibit of sandstone, planting it freely with alpines in groups. Saxifraga apiculata, Anemone blanda, Arenaria balearica, Hepaticas and Primula denticulata were noticeable and good.

Messrs. Heath and Son, Cheltenham, also arranged a rockery exhibit, such rare alpines as Saxifraga Barisii, S. lilacina and S. Boydii being noted in a nice lot.

Mr. G. Engelmann, Saffron Walden, had a nice group of Carnations, of which Carola and Harlequin, crimson and fancy respectively, were well shown. Admiration is an excellent pink-flowered variety.

Mrs. Leschallas, Higham, Windlesham, Surrey, had a good group of Eupatorium iananthemum in small, well-flowered examples.

Messrs. Cannell and Sons, Swanley, displayed an excellent group of winter-flowering Zonal Pelargoniums, of which Queen of Italy (salmon), Bombay (scarlet) and Mentmore (cerise-scarlet) were very fine. White Stellate Cinerarias were also shown.

Mr. H. Burnett, Guernsey, displayed an admirable lot of Carnations, showing grandly such varieties as Mrs. Burnett, R. F. Felton, Snow Queen, Afterglow and Marmion, the last-named finely scented.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a choice group of flowering shrubs, Lilacs, Rhododendrons, Pyrus of sorts, Exochorda grandiflora and Wistarias predominating. Grevillea sulphurea, Azalea mollis, Wistaria sinensis alba (a lovely lot) and Amelanchier canadensis (a good forcing shrub) were noticeable.

Mr. L. R. Russell, Richmond, had a glorious bank of Azalea indica in variety, the plants presenting rare masses of flowers. There were some two dozen varieties displayed, the group being flanked at right and left with flowering shrubs in variety.

Messrs. R. and G. Cuthbert, Highgate, N., displayed a fine bank of forced shrubs similar to others from the same exhibitors on former occasions.

Mr. G. Reuthe, Keston, Kent, had a delightful arrangement of alpine plants and shrubs, the former including Hepaticas, Soldanellas, Saxifrages, Grape Hyacinths, Anemone blanda, Narcissus cyclamineus, hardy Heaths, Crocus species, Snowflakes and a host of other interesting or beautiful things.

Messrs. J. Peed and Sons, West Norwood, S.E., exhibited Lachenalias and early alpines.

The Guildford Hardy Plant Nursery showed hardy Heaths and a choice lot of early alpines.

A pretty group of Primula malacoides came from Mr. H. Ward, Oak House Nursery, Enfield.

Lady Tate, Park Hill, Streatham Common (gardener, Mr. Howe), filled a table with a choice assortment of forced Daffodils, Tulips, Polyanthus Narcissus, Italian Hyacinths, Azalea mollis and other plants, employing light and elegant Palms and other greenery in a very pleasing and effective manner.

Messrs. William Cutbush and Son, Highgate, N., displayed a handsome lot of Carnations, of which Lady Coventry, Lady Elphinstone, Lady Miller and Edna (heliotrope) were all good. Among hardy plants Primula malacoides, Iris reticulata, Saxifragas, Hepaticas, Tulipa kaufmanniana coccinea, Corylopsis pauciflora, Ledum compactum, Daphne blagayana and other good plants were shown. In the greenhouse section Messrs. Cutbush displayed Azalea mollis, Magnolia soulangeana, Erica Veitchii, E. ovata, Citrus sinensis and other good plants.

Roses from Mr. G. Mount, Canterbury, included Lady Hillingdon and Richmond, a pair of indispensables among these plants.

Mr. Herbert Chapman, Rye, exhibited a series of Iris reticulata crosses, also Freesias and some charming hybrid triandrus Daffodils, all of which created a great deal of interest.

Mr. Seward, Hanwell, displayed a glorious group of Cyclamen, each plant a perfect example of its kind. The boldness of the flowers was also an outstanding feature.

Messrs. Baker's, Wolverhampton, had a nice lot of alpines, backed by Rhododendron præcox and white Mezereon.

Messrs. William Wells and Co. again showed handsome flowers of Carnation White House.

Messrs. H. B. May and Sons, Limited, Edmonton, had a delightful exhibit of the rarely-seen Filmy Ferns, of which a good representative collection was shown.

Messrs. Sutton and Sons, Reading, filled a table excellently with bedding Tulips in variety in semi-circular groups of crimson, white, rose, orange and white, the centre of the group being made up of Primula kewensis and the firm's new scarlet-flowered Cineraria, the last-named being a great gain.

Mrs. Leschallas, Windlesham, Surrey (gardener, Mr. Farmer), had a lovely lot of Richardia elliotiana, the spathes rich and beautiful in colour, and the plants, of which there were several dozens, exceptionally well grown.

Messrs. Bath, Limited, Wisbech, had many vases of Narcissi, Hyacinths and Crocus growing in fibre.

Mr. M. Prichard showed alpines very finely.

Messrs. James Veitch and Sons staged a handsome lot of standard Azaleas in many good kinds.

Mr. A. F. Dutton, Iver, Bucks, had a very fine group of Carnations, of which Mrs. Burnett, May Day, Winsor and O. P. Bassett were the chief.

Hardy plants in great variety came from Messrs. G. and A. Clark, Limited, Dover, many Primulas being staged.

The table of greenhouse flowering plants from Messrs. Veitch included Azaleas, Primula farinosa kewensis, Hippeastrums and other choice plants, the whole making a goodly show.

Messrs. Phipps and Ireland, Barnham, exhibited a small collection of alpines.

Messrs. H C. Pulham, Elsenham, Essex, were responsible for a rockwork exhibit.

Messrs. T. S. Ware brought from Feltham a large display of early hardy flowers.

Messrs. Stuart Low and Co., Enfield, had a miscellaneous table of hard-wooded plants, Primula malacoides and Carnations

Messrs. J. Hill and Son, Edmonton, had a showy collection of Ferns in variety, chiefly Gleichenias and Nephrolepis.

Messrs. R. Gill and Sons, Falmouth, had a lovely lot of Rhododendrons and a charming new Himalayan Primula, P. Winteri, of which more anon. Sweet Violets and Cyclamen Coum were also well shown.

Messrs. J. Cheal and Sons, Crawley, showed some good boxes of hardy flowers, of which Primula denticulata made a goodly display.

Messrs. R. Sydenham, Limited, Birmingham, showed a first lot of Narcissi and a beautiful group of Lily of the Valley grown in fibre.

Cyclamen were grandly displayed by the St. George's Nursery Company, Harlington, Middlesex, the finely-grown plants defying description.

Messrs. R. W. Wallace, Colchester, had a charming display of hardy flowers, Croci, Tulips, Fritillarias, alpine Primulas, Shortia and Saxifraga being noted. Iris reticulata was very fine.

AWARDS.

Gold medals to Mr. L. R. Russell for Indian Azaleas; and Messrs. Veitch for greenhouse plants, standard Azaleas and forced shrubs.

Silver-gilt Flora medals to Messrs. Cutbush for cut flowers and flowering plants; Miss Gundry for flower pictures; St. George's Nursery, Harlington, for Cyclamen; and Lady Tate for flowering bulbs.

Silver-gilt Banksian medals to Messrs. Hill for Ferns; Messrs. May for Filmy Ferns; and Mr. Seaward, Hanwell, for Cyclamen.

Silver Flora medals to Mr. Burnett, Guernsey, for Carnations; Messrs. Cuthbert, Southgate, for forced shrubs; Mrs. Leschallas, Windlesham, for Richardia elliotiana; Messrs. Stuart Low for Carnations, &c.; and Mr. Reuthe for hardy plants.

Silver Banksian medals to Messrs. Barr for hardy plants; Mr. Dutton, Iver, for Carnations; the Hon. Vicary Gibbs, Elstree, for Cyclamen; Messrs. Mount, Canterbury, for Roses; Messrs. Peed, Streatham, for Lachenalias and alpines; Mr. Prichard, Christchurch, for hardy plants; Messrs. Sutton, Reading, for Tulips; Messrs. Ware, Feltham, for rock plants; and Mr. Engelmann, Saffron Walden, for Carnations.

Bronze Flora medals to Messrs. Cannell, Swanley, for Zonal Pelargoniums, &c.; Messrs. G. and A. Clark for hybrid Primroses; and Messrs. Gill, Falmouth, for hardy plants.

Bronze Banksian medal to Messrs. Baker's, Codsall, for hardy plants.

BOURNEMOUTH GARDENERS' ASSOCIATION.

MISS ROOPER of Qeuselwood, Bournemouth, prepared a very interesting paper on "Conifers," which was read by Mr. Reeves before the members on Tuesday, the 21st ult. This lady takes a keen interest in horticultural matters generally, and in the welfare of the Bournemouth Gardeners' Association in particular, and has frequently contributed papers of great interest to the members. Mr. Cockman presided. Before the paper was read, complimentary references were made to the fine exhibit of Cyclamen by Mr. Nippard, the assistant-secretary, and the Cinerarias staged by Mr. C. Pearce. The highest awards were made in both cases, the plants being extremely well flowered and very healthy. Mr. Reeves staged over sixty distinct varieties of conifers, and many of them were referred to by Miss Rooper in her paper. The following is a summary of the paper read by Mr. Reeves: The conifer family was widely spread; indeed, it extended over the whole world, some of the finest specimens being found in North America and in California. The conifers are distinguished from any other order of plants by the peculiar structure of their wood, their resinous secretions, the form of their leaves, and the extreme simplicity of their flowers and fruit. Many authors include in this family the group of trees and shrubs known as the Taxads, of which the Yew is the type; but the fruit of the Taxads is very different from that of the true conifers, with its leathery scales and numerous seeds. The two orders are of the greatest importance to man, in many respects supplying the best timber for constructive purposes, reference being made to the fact that the old doors of St. Peter's at Rome, made of Cypress wood, were quite sound after a period of 1,100 years, when ordered to be removed to another place by the Pope. No other family of trees and shrubs has so many ornamental specimens and varieties to adorn our gardens and parks. There is no race of plants of greater ancestry. Traces of conifers and Yews have been found petrified in the most ancient rocks near Lulworth; and on the side of the cliff, about a mile to the east of Lulworth Cove, there is quite a large group of Pines, or, rather, their petrified stumps. Miss Rooper referred to the remarkable grove of Yews in Norbury Park in Surrey, and on the South Downs near Chichester. References were also made to the fact that many conifers thrive in shallow soils on the rocks of steep hills, to the great vitality of the roots, and the great differences in the depth to which the tap-roots penetrate the ground.

READING GARDENERS' ASSOCIATION.

THE annual tea and entertainment in connection with this association took place at the Abbey Hall (by permission of Messrs. Sutton and Sons) on Wednesday, the 15th ult., when at six p.m. about 100 members and friends sat down to an excellent repast provided by Mr. J. E. Phillips of Duke Street. Mr Alderman Parfitt presided, and read an expression of regret from the vice-president that he was unable to be present at the tea, but hoped to join the company during the entertainment later. Mr. Arthur W. Sutton also wrote expressing regret at his enforced absence and wishing all present an enjoyable evening. The meal having been partaken of, the hall was quickly cleared of tables, &c., and an audience of between 700 and 800 assembled to enjoy the splendid entertainment provided for the evening. Through the agency of Messrs. Maskelyne and Cooke of St. George's Hall, London, a particularly high-class party had been engaged, and the programme was rendered to the great delight of the large gathering.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

MODERN METHODS OF EXHIBITING HARDY FLOWERS.

THOSE who are in the habit of visiting the principal horticultural exhibitions held in various parts of the United Kingdom, and more especially the metropolitan shows arranged by the Royal Horticultural Society, cannot fail to have noticed the wonderful change that has taken place during the last decade in the method of exhibiting hardy flowers. At one time these flowers were scarcely thought worthy of a place in the show tents, and, even if they were displayed, the usual style was to stage them in stiff bunches, so that their natural beauty was obliterated, if not entirely destroyed.

Happily, our hardy plant specialists have changed all this. Visitors to exhibitions now have hardy flowers arranged for their delectation in much the same way that one would see them actually growing in the garden, and by this means their individual charms are seen to the best advantage. Not only do we get broad borders stocked with all kinds of hardy plants in season, but frequently old retaining walls and pools, each in turn furnished with suitable flowering and foliage plants, are incorporated, to say nothing of the artistic Japanese and old English gardens which some of the leading firms have gone to enormous expense to reproduce during recent years. That these up-to-date methods of displaying hardy flowers have added greatly to their popularity no one will, we think, deny; indeed, it is only by some such system as this that the rare beauty of many of our modern hardy plants can be seen to anything like the best advantage.

Since so much has been done to bring the merits of hardy herbaceous, alpine and aquatic plants before the notice of the public in an interesting and, to some extent, instructive manner, it is to be hoped that some of our leading seedsmen will adopt similar methods with the many beautiful hardy and half-hardy annuals which do so much towards the embellishment of our gardens in late summer and early autumn. It is true that an attempt, on a very small scale, has been made on one or two occasions during recent years, and the results obtained, so far as effect was concerned, fully justified the efforts of the exhibitors; but generally, if annuals are shown at all, we find them in tight, miserable bunches of half-dead specimens, with the result that they undeservedly get a bad name from that section of the public which is only too ready to condemn or praise a flower as it is seen at an exhibition. There are, perhaps, more difficulties to be overcome in showing annual flowers in a semi-natural manner than in the other types mentioned; but that these difficulties are not insurmountable is proved by the occasional exhibits that we have already referred to. It is probable that many of the plants would have to be grown in pots or boxes; but a number of them take to such cultivation and do not give an excessive amount of trouble. The correct gauging of the time at which they would be needed in flower would call for a certain amount of judgment, and an intimate knowledge of the plants would, of course, be essential.

We have heard the complaint raised that such exhibits as we have referred to are misleading, and that owners of gardens are apt to expect results at home equal to those which they see provided for them at the exhibitions. This may be, to a certain extent, true; but even then it does not outweigh the good that has been done by such exhibits in creating an interest in the individual kinds of flowers of which they are composed. Once such interest is aroused, knowledge concerning the plants will be eagerly sought after, and with the acquisition of such knowledge the unreasonableness of such expectation will, or should, be fully revealed. What such exhibits do is to present the various kinds of flowers of which they are composed to visitors much in the same way as they would appear when growing, and not as mutilated portions of plants.

It is in the encouragement of such natural or semi-natural exhibits that the newly-formed National Hardy Plant Society might do a vast amount of good, and, judging by the personnel of the council of that body, we presume this, as well as all other phases appertaining to the cultivation of, and the creation of interest in, all kinds of hardy flowers will in due course receive proper attention. In hardy plants of all kinds, including annuals, we have to-day a wealth of material that our forefathers would never have considered possible, and anything that tends to make such plants popular should appeal to every true lover of outdoor gardening.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 13.—United Horticultural Benefit and Provident Society's Annual Meeting at the Royal Horticultural Society's Hall, at 8 p.m.

March 14.—Royal Horticultural Society's Meeting and Spring Bulb Show at the Royal Horticultural Hall, Westminster. The Sixth Masters' Memorial Lecture by Mr. G. F. Scott Elliot, M.A., B.Sc., F.L.S., on "Origin of Varieties," at three o'clock.

March 15.—Spring Bulb Show (second day).

March 16.—Linnean Society's Meeting, at 8 p.m.

March 17.—National Dahlia Society's Conference, Carr's Restaurant, Strand, at 6 p.m.

Royal Warrants for horticultural firms.—Messrs. James Veitch and Sons, Chelsea, and Messrs. Stuart and Mein, Kelso, have been granted Royal Warrants of Appointment as Nurserymen and Seedsmen to His Majesty the King. Messrs. Thomas Green and Sons, Limited, of London and Leeds, have been appointed by Royal Warrant Horticultural Machine Makers to King George V.; and Messrs. Hobbies, Limited, Dereham, have been honoured with the Royal Warrant of Appointment as Nurserymen to Queen Alexandra. Messrs. William Paul and Son, Waltham Cross, Limited, have received a renewal of their Warrant of Appointment (already held under Their late Majesties Queen Victoria and King Edward VII.) as Rose Growers to His Majesty King George V., and also a Warrant of Appointment as Rose Growers and Nurserymen to Her Majesty Queen Alexandra.

United Horticultural Benefit and Provident Society.—The annual meeting of this society will be held at the Royal Horticultural Hall, Vincent Square, Westminster, S.W., on Monday, March 13. The chair will be taken at 8 p.m. by Mr. C. H. Curtis.

Horticultural instructor for Hampshire. — Mr. C. J. Gleed has been appointed horticultural instructor to the Hampshire County Council, he being the successful candidate out of many applicants. He is the holder of numerous certificates, including that of the Royal Horticultural Society and Swanley College. For the last two and a-half years he has been employed by Messrs. J. Veitch and Sons at their Feltham nursery as grower of greenhouse plants and novelties. In addition to the places already quoted, he has filled various positions at Cliveden and Forest Farm, Windsor, which will, no doubt, prove a great help to him in his position as lecturer.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A national Daffodil society.—I cannot agree with the principle that the Royal Horticultural Society should subsidise a national Daffodil society, or, for the matter of that, any other society whose aim is the specialisation of any particular flower; and the very mention of the thing, not to say the support the proposition received, would appear to suggest that those present at the meeting possessed but scant confidence of the success of any such undertaking. If one were to express an adverse view of the idea of forming a national Daffodil society at the present time, one's criticisms would be directed rather to the belated idea of the proposal than to the principle "To be or not to be," and which, indeed, should be "the question." Because the Sweet Pea and the Rose have their own special band of devotees is no argument in favour of the formation of a national Daffodil society; rather should the real question at issue be, "Could such a society, if formed, further the interests of the flower or afford a greater impetus to its cultivation than now obtains?" To answer this in the affirmative, remembering the vast expanse of the flower commercially during the past quarter of a century, and remembering, too, its popularity with all classes and the steadily-increasing number of Daffodil societies springing up throughout the land, may not at first sight appear easy, since surely all this has been accomplished by the forceful attributes of the flower alone. But is not this all the more reason why the flower should not be longer left to itself, and that some central body, as it were, should cover it with a protecting wing and cause it to rise in districts where it is even as yet catered for in but very meagre fashion? The advent of a Daffodil society in any obscure country district or large provincial town would of surety encourage and extend the usefulness of the flower in such districts, while in a national society would be centralised all that makes for progress in the flower of its choice. That there is room and useful work for a national society in connection with the Daffodil I fully believe, and that such work is possible of accomplishment without injury to existing societies there is, I think, already abundant proof.—E. H. Jenkins.

A proposed Pansy society.—In The Garden for February 25 your correspondent "A. D." proposes the formation of a Pansy Society, and suggests that it is not within the scope of the National Hardy Plant Society to cater for Pansies and Violas. I do not know whence your correspondent has got the idea that the National Hardy Plant Society intends to ignore florists' flowers, but he is certainly in error. It was considered advisable at the inauguration of this society that it should be made known that we had no desire to encroach on the domains of existing societies, such as the Tulip Society, the Daffodil Society and others, which are doing all that is necessary for the particular flowers under their charge; but one very good reason for forming the Hardy Plant Society is that its existence will dispense with any necessity for the multiplication of small special societies whose operations are confined to the narrow limits of one plant. Pansies and Violas will, I can assure "A. D.," and any other reader who may be interested, receive adequate attention from the National Hardy Plant Society, and with your permission I will take this opportunity of extending to all lovers of these delightful flowers a hearty invitation to join and support us, for it is surely better for all to unite in one strong body and work together for the improvement and advancement of hardy plant culture than to break away in all directions, forming numerous small societies that would always be handicapped by lack of adequate support. "A. D.," whose identity is but thinly veiled under those initials, would, I am sure, do yeoman service to the young but growing National Hardy Plant Society by joining and taking a seat on its council, where he would be able not only to watch the interests of the Pansy and Viola, but also render valuable assistance in regard to other subjects which, if I may express an opinion, have an equal share of "A. D.'s" affection.—A. J. Macself, *Chairman of the National Hardy Plant Society.*

—— I should like to express my hearty concurrence with the remarks made by your correspondent "A. D." on page 87 of your issue for February 25. To my mind there can be no question of the desirability of founding a Pansy and Viola society in the South of England. It has been urged against the formation of such a society that these plants do not succeed well in the Southern Counties of England, but I have for some years past grown a representative collection of both exhibition and bedding varieties of Violas in Kent under peculiarly trying conditions of soil, with quite good results. A little more work in preparing the beds in the first place and plenty of attention to the watering and feeding of the plants during the summer are certainly called for; but anyone who loves his plants will not grudge them this additional care. I have seen plenty of exhibits of Pansy and Viola blooms grown in the Southern Counties of which a Northern grower need not have been ashamed, and the interest which such an exhibit invariably arouses among the visitors to the show furnishes the best possible testimony of the popularity of the Viola (and Pansy) in this part of England, and forms a good omen for the success of a society devoted to the culture and improvement of these plants in the South. If a few enthusiasts would put their heads together and develop a Southern section of a Pansy and Viola society, I believe the venture would receive ample support, and I for one would be glad to take such share in the work as was possible to me.—Rudolf Beer, B.Sc., F.L.S.

—— One cannot imagine that "A. D." is serious in his remarks anent the formation of a Pansy Society! This would be about the most useless of all societies, because the flower itself does not in any way compare with other flowers that have an established society, such as the Rose, Sweet Pea, and now the suggested Daffodil Society, because the Pansy is of no value as a cut flower. Also, for outdoor use the Pansy does not equal the more modest Viola as a bedding plant.—E. M.

Spring work on lawns.—Referring to the excellent article on this subject (page 73), it occurred to my mind when reading the following paragraph, "there is a good deal to be said in favour of a lawn with small hills and dales, especially in a hilly country," that some readers of The Garden might be glad to hear which are the best lawn-mowers to use on lawns where these hills and dales exist. Perhaps with the Editor's permission "D." will give readers the result of his experience on this matter. I quite agree with "D.'s" views as stated in the paragraph, "Many people seem to think that a lawn must be on a dead level." Of course, lawns formed for the matter of playing lawn tennis and other games must be level, but the lawn proper is often best when treated so as to form a harmonious link between the mansion and the surrounding landscape.—Colin Ruse.

A plea for British Orchids.—It might be safely asserted that almost all amateurs desirous of collecting Orchids commence by purchasing that ever-universal favourite, Odontoglossum crispum. I agree it is a beauty, and have no fault to find with it; but I ask the question, "How many readers are there who will say that they never knew of a native Orchid before? An English Orchid?" I think all growers ought to possess a few, and that professionals, too, ought to cultivate them more than they do at present, as some are becoming extinct. Some are really beautiful, even better than some of their brethren from warmer climes, and cost about as much in pence as the imported kinds do in shillings. A few I would recommend are as follows: Ophrys apifera, Orchis militaris, O. mascula, O. latifolia, O. laxiflora, Cypripedium Calceolus, Habenaria conopsea and H. chlorantha, and there are several others. The Cypripedium named is getting very rare, and is deserving of preservation.—Percy Flint.

Lilium nepalense and L. sulphureum. My experience of the above last season was different from that of Mr. Blair as reported in The Garden.

I had two bulbs of each and treated them as recommended, viz., cool treatment—in fact, I exceeded this and plunged the pots in a border outside; but as the weather was cold and wet, I took them up again after six weeks and put them in a cool house. They flowered towards the end of October and had very fine blooms.—C. H. B. C., *Surrey*.

Sweet Peas in pots or boxes.—I read with interest the fortnightly contributions in "Sweet Pea Chat" by your able correspondent A. B. Essex. In your last issue I see he is desirous of ascertaining readers' opinions as to whether Sweet Peas succeed best if sown in pots or boxes. Your correspondent says he gets the best results from boxes; but he does not say whether the boxes are ordinary ones or made specially for the purpose. If they are ordinary ones and not made with a movable side or bottom, I fail to see how the seedlings are moved "easier to their open quarters." There are, I think, two points to consider as to whether it is preferable to use pots or boxes for this purpose, and they are, Are the Sweet Peas to be grown in clumps or straight rows? If it is desired to grow in clumps, I much prefer pots, as when the time for planting in the flowering quarters comes they can be turned out of the pots and planted intact without the possibility of injuring any roots. If a straight row is preferable, narrow boxes about 2 feet long, with a movable side or bottom, might be used to advantage with the same object in view—that when the seedlings are transferred to the open they experience no check through having the roots disturbed in any way. As to why your correspondent's Sweet Peas gave better results when sown in boxes, the only suggestion I can offer is that when grown in pots there is a possibility of them getting dry at times, more so, I think, than when grown in boxes.—J. Wood, *St. John's Lodge, Regent's Park*.

Unfixed Sweet Peas and double standards.—I was very pleased to see A. B. Essex in his "Sweet Pea Chat" take up the question of unfixed stocks of these flowers being offered for sale. It is unfair to small growers. Many keen amateurs have arranged their gardens to make room for twelve varieties, say, nine plants of each, and cannot spare more space. If such an amateur is growing one unfixed stock, his chances of exhibiting twelve varieties are very small. I am hoping that the National Sweet Pea Society will make a rule debarring all varieties that do not come up to 95 per cent. fixity being shown in competition. In the "Sweet Pea Annual" the list of best varieties drawn up by the floral committee contains only two varieties that do not come up to that standard, viz., Asta Ohn and Zarina, which do not come true to type. This, I consider, worse than colour rogues. Many amateurs and traders cannot separate the types. A. B. Essex also refers to double standards. If he or any of your readers want to see a Sweet Pea where a double standard improves a flower, they should grow Elfrida Pearson. This variety gives a percentage of double standards. Twenty sprays of this variety with double standards will take some beating. The flowers with double standards when cut travel better and stand longer than the singles. Many of the Spencer varieties have wings and keel far too large in proportion to the standard. In some cases the standards reflex before the flower is developed at all. I do not hold that all stocks giving double standards should be gone on with. The same care should be given as in the perfect single standard. I was not always a lover of double standards. In 1902, when Jeannie Gordon was first offered, it gave double standards; so did the cream sport that came in it. The sport was grown by some and then discarded. Later it was offered as Dora Breadmore.—Fixity.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Indoor Garden.

Chrysanthemums.—Pot on rooted cuttings before they become pot-bound, and place them on a coal-ash bottom in a pit near to the glass. Keep the pit close for a day or two, and lightly shade the plants during the hottest part of the day till they have recovered from the check. A good batch of cuttings should be rooted for flowering in 6-inch pots; these are invaluable for grouping. The dwarf, free-growing varieties should be selected for this purpose.

Forced Shrubs.—As these pass out of flower they must be attended to in the matter of pruning and the removal of dead flowers. Lilacs, which are among the most useful for this purpose, should be pruned and placed in a cool house to become hardened preparatory to planting them out in ground which has been trenched and well manured. Azaleas should be repotted if necessary and placed in a warm house to complete their growth.

Ferns.—These will need repotting or top-dressing. Those plants which are already in large pots will thrive undisturbed for several years, provided they are in a healthy condition. When such plants show signs of deteriorating, they should be repotted. Ferns require a compost consisting of loam and peat in equal parts, leaf-mould, crushed charcoal and sand. Place the plants in a warm, moist atmosphere and shade from bright sunshine.

Calanthes.—The deciduous Calanthes will need repotting now that growth is on the move. These are most useful and easily-grown plants, provided a suitable house is available for their culture. A compost consisting chiefly of good fibrous loam, leaf-mould which has not been fermented, with a little dried cow-manure and sand, will suit them. This should be prepared and placed in a house to get thoroughly warm before potting commences.

Carnations.—The Perpetual-flowering Carnations which are rooted must be potted up into small pots in light, sandy soil. For a few days after potting they must be kept close till they have recovered from the shift; then gradually inure them to more airy conditions, but do not expose them to cold draughts. When they have attained a height of 6 inches or 7 inches, pinch out the points of the plants to form a bushy habit. Pot them on into 5-inch pots before the roots become pot-bound. They must eventually be placed into 7-inch pots, in which size they will flower. The shoots will again require to be "stopped" when they have attained a suitable length, unless the plants are very late, when one stopping will suffice.

Flower Garden.

Roses.—In the most Southern districts it will be safe now to commence pruning standard and bush Roses. The hardier sorts should be dealt with first, leaving the Tea, Hybrid Tea and others of less robust constitution till last. Plants which are becoming weak should be severely cut back, and all useless wood should be cut clean away. The leaving of this weakly spray on the plants is one of the chief causes of deterioration. Fork up the soil between the plants when pruning is completed, and later on, when growth is active, the plants will be considerably benefited by being top-dressed with well-rotted farmyard manure. At this stage a sharp look-out must be kept for mildew, and some means must be taken for checking it at once.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Pruning Roses.—It will now be quite safe to prune the Roses in the flower-beds. The protecting material that has been used on tender varieties should now be removed. By keeping it on too long, early growth is encouraged, which, being tender, would run the risk of being killed by late snaps of frost. At the date of writing, Roses have come through the winter well, very few deaths or dead shoots being noticeable. As a general rule, dwarf Roses should be pruned rather low down to ensure strong shoots that will carry good blooms; weak shoots should be removed entirely, medium ones cut back to one or two buds, the strongest growths being left a little longer. Dwarf Polyantha and China varieties may be less severely pruned. Where an autumn display is the chief aim in the Rose garden, a good deal can be done to alter the natural flowering season of free-flowering varieties by pinching out the points of the shoots in May, or, in the case of free growers, trimming the beds over at that time with the hedge shears will ensure a wealth of blossoms during the autumn months. Weeping varieties on standards should have their stronger shoots left full length if a shower of blossoms is to be expected. Standards should always have their stems protected during the winter with Bracken, or other such material, wrapped round them, besides working a few small branches of Fir in about the heads.

Relaying Boxwood.—Any vacancies that may have occurred with this or other edging plants can be filled up. Dwarf edging Boxwood in many places grows very indifferently, needing much attention to keep it in good order, besides being easily killed if trodden on by careless workmen during winter. Where such is the case, tree Boxwood should be tried, as it grows and stands much better and forms an equally good edging. Cuttings should be selected from a good coloured variety; and although they may be put in at once to form an edging, it is better to place them in nursery lines in the garden until well rooted before planting in permanent quarters. When established, lifting and relaying can be carried out in the usual way. Many gardeners in the North have now adopted the tree Boxwood exclusively, and its healthy appearance at all seasons of the year fully justifies the practice being more widely extended.

Lawns.—Continue to sweep and roll lawns and trim the edges. If time will permit, remove all strong weeds, such as Plantains and Dandelions. Where moss is found, it should be raked out with a sharp steel rake and given a top-dressing of fine soil. Lawns respond readily to a top-dressing of soil. If a portion of the refuse-heap has been at an earlier date mixed with lime shells it will provide a good top-dressing when passed through a fine riddle along with the refuse from the potting-bench, wood ashes and soot, all being thoroughly mixed together. Relaying of turf may also be attended to during the present month, afterwards rolling frequently until the mowing season begins. Endeavour to put all stretches of lawn into good condition, as patchy turf detracts from the appearance of the place.

Walks.—Having been loosened by frost, these will require frequent rolling to bring them into good condition. Weed-killers are now so much used that they have generally a better surface; but where there are narrow walks between flower-beds edged with Boxwood, it is safer to use the hoe, and if the surface is stirred during the present month it will do much to lessen the number of weeds that would otherwise appear in the summer months. Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

FRUIT NOTES.

TREES IN BLOSSOM.—It is, unfortunately, necessary in practically all gardens to protect the blossoms of Apricots, Peaches and Nectarines, and one is fully justified, should the conditions render it wise, in giving the same attention to the choicest Pears. Tanned netting is the most convenient material as a rule, and two thicknesses will usually provide all the protection that is requisite or even desirable. The importance of suspending the material in such a manner that no part of the plants is touched must not be overlooked, and this can be accomplished without much trouble. It is also preferable to arrange the shelter so that it may be removed and replaced in a few moments, according to circumstances. It is to be feared that many growers draw on the protection and leave it, irrespective of what the weather may happen to be; but it is not sound culture, all the same.

LATE-PLANTED TREES.—Trees which have been put into their permanent positions during the present spring, and which were neither staked nor pruned at the time, ought to have attention. It is not always imperative that supports shall be placed to trees, but it is usually desirable, and as it does not involve the owner in much trouble, it might advantageously always be done. One then knows that movement due to wind will not retard establishment, and that, all other things being favourable, the roots will secure a perfect hold quicker than would otherwise be the case. As far as pruning is concerned, it is wise to wait until the upper buds on the shoots have started progress, and at this stage to cut back one-half or two-thirds, according to judgment. It commonly happens, when the pruning is done before the top buds start, that those at the base do not come away as freely as one would like; but the clear indications of movement shown in the top buds will be sufficient warrant for cutting.

GRAFTING.—This interesting and important operation will have to be put in hand before long, the start generally being made on Pears. It is a task in which attention to details alone will ensure success, and the man who has not patience to see that everything is right as he goes along had better not attempt the work, since he will assuredly reap far more failures than successes. The sap must be rising in the stocks, and the scions be at complete rest. The cuts must be made with a sharp knife, and no efforts be spared to ensure the close meeting of the inner bark on one side at least, and if it can be managed on both sides, so much the better. After tying in one can clay or wax for the exclusion of air; but the latter is preferable, except for old stumps, as it is not liable to crack.

HOEING.—Throughout the whole of the fruit quarters regular hoeing at frequent intervals from now onwards cannot do other than good. it prevents the weeds which have already started healthily in many gardens from becoming properly established, and it encourages the free admission of the strength-giving warm fresh air. Thus, simple as the process is, it ensures the destruction of weeds, sweetens the ground and ensures that all the food contained in it shall go to the direct sustenance of the fruit and not to interlopers. The Dutch hoe is the most popular, but a change to the draw hoe is wise at times.

STRAWBERRY-BEDS.—Unless the work has already been accomplished, any remains of the autumn mulching should be raked off forthwith. It can do no further good, and is, therefore, best removed. Immediately after that has been done, carefully hoe the entire surface of the plantation to cut down all weeds (any that are growing so closely to the plants that the use of the hoe would involve danger should be pulled out by hand), and afterwards a light dressing of any approved concentrated fertiliser may be advantageously applied. The kind of manure to use is not of special importance, provided that it is not too highly nitrogenous and that an overdose is not given. A little later hoeing may be done a second time, another light feeding given, and the long, strawy litter spread down to feed the plants now and afford a clean bed for the swelling fruit later on.

FRUIT-GROWER.

Ranunc. silvar. pleno albo flore.



CLUSIUS' WOODCUT OF ANEMONE NEMOROSA BRACTEATA.

PROTECTING THE FLOWERS OF PEACHES AND NECTARINES.

THE trees of Peaches and Nectarines flower early in the year on open walls, and consequently the blooms are liable to be damaged by frosts. As we can only secure one crop of fruit from the trees in a year, we should do our best to prevent any injury to that crop. I have had considerable experience in the cultivation of Peaches and Nectarines, both under glass and on open walls, and have frequently noticed the great damage done to the flowers by only a few degrees of frost when they were wet, and also the small amount of injury accruing when they were thoroughly dry, even in rather severe frosty weather.

The inexperienced cultivator will thus realise how very important it is that the trees be well protected during frosty weather. Then the question is: How should the blossom be protected? Well, it is not necessary to cover the whole of the tree. The best plan is to fix wires or poles to the wall at an angle of 60°. The wires or poles must be made secure to the top of the wall and to the ground, and be fixed 7 feet apart. Then a strip of tiffany or similar material must be also fixed to the top of the wall in such a way that it can be let down and made secure during frosty or wet weather, and tied up when fine weather prevails. A strip of tiffany 3 feet wide will afford much protection to the blossom, but I prefer a piece 72 inches wide. Those who can procure the flat, spreading branches of Fir or other evergreen trees may succeed in guarding their precious Peach and Nectarine blossom from severe frosts. The branches must be nailed to the wall, but the fan of each branch should spread outwards at an angle of 72° and not lie flat against the fruit trees. A branch 3 feet wide and 2 feet deep so fixed will protect 12 square feet to 18 square feet of wall space below it. Herring-nets doubled or trebled will also do to protect the blossom if fixed in the way advised in the case of tiffany.

At this season it is advisable to keep the border in an even state of moisture; on no account must manure-water be applied. Where trees are growing under glass, close attention to the requirements of the soil must never be relaxed. There should be no undue hastening of the growth. Keep the atmosphere rather dry and ventilate freely without causing cold draughts. The judicious use of a rabbit's tail fixed on a long stick, a camel-hair brush, or a gentle tapping of the branches will all act as aids to the setting of the fruits. When the sun shines brightly, trees under glass may be rigorously hand syringed about eleven o'clock in the forenoon. This action also assists in distributing the pollen and causing a good "set." I like to hear the hum of the bees in the Peach-house and on the trees in the open when the blossom makes a brave show.

B.

STRAWBERRIES IN THE OPEN.

THE Strawberry is among the earliest of the many hardy fruits in cultivation, and it is a crop that is anticipated as much, if not more, than any other. At this season the beds should be hoed, provided the ground is not in too wet a condition. At the time of hoeing it is a good plan to lightly dress the beds with either soot, guano or an approved fertiliser.

THE FLOWER GARDEN.

THE FASCINATION OF THE ANEMONE.

(*Continued from page* 102.)

LEEDS'S Wood Anemone, mentioned in my last notes, flowers at the same time as Robinsoniana, and so after most of the white forms, but not so late as one curious form that came to me among the roots of some other plants. It is very slender in all its parts, and the flowers are not purely white—I think slightly tinged with cream colour, and the stalks rather pink, its chief interest being that it flowers so late—about the same time as the double form, I mean the true variety, flore-pleno, with six well-formed sepals, and the anthers all replaced by a rosette of small strap-shaped floral leaves, as though a double white Daisy had been placed in the centre of an ordinary Wood Anemone. This form is figured in Maund's "Botanic Garden," IV., 318, and better still in Wooster's "Alpine Plants," Plate XLIX., but never a word does either author say of its origin. It is not a rare plant, and is found in most good gardens where old plants are grown. I can remember it from my early childhood here, and never noticed it to vary at all, always fully double in the centre and the regularity of the sepals being in no way interrupted.

I like to think that it may be the same form that Gerard grew, and of which he remarks: "There is in some choice gardens one of this kinde" (*i.e.*, wild Wood Anemones) "with white flowers very double, as is that of the Scarlet Anemone, and I had one of them given mee by a Worshipfull Merchant of London, called Mr. John Franqueville, my very good friend." He describes this same double scarlet one as being "as double as the Marigold." This description well agrees with the neat and regular doubling of the centre. In the original edition of 1597, Gerard gives no figure of his double nemorosa, and that of the double scarlet coronaria is not very clear, but shows a form with increased numbers of sepals, and apparently a star of strap-shaped, transformed anthers in the centre.

Gerard borrowed his woodcuts from Tabernæmontanus's, however, and may sometimes have been obliged to use that which most nearly represented the plant he had in his mind. Johnson, when he reproduced Gerard's book in 1633, added a great number of descriptions and figures, and also used quite another set of woodcuts even for the plants Gerard had figured. Johnson shows a form with a regular and full double centre and fairly regular sepals for the double scarlet coronaria; in fact, just the form we still speak of as being Anemone-flowered when describing other plants with regular guard petals (or florets, as in Chrysanthemums), and a full rosette of small, petal-like bodies in the centre. But for Gerard's double wild Windflower Johnson has borrowed a cut from Clusius' "Rariorum Plantarum Historia," published in 1601. This beautiful woodcut in Lib. II., page 247, well displays the characteristics of the form now known as A. nemorosa bracteata fl.-pl., especially in the second blossom given at the side of the whole plant.

Now, Clusius has much to say of this and the next form, a double purple one, which, unless it still lingers in its native wood or in some old garden, I fear has been lost. This is the substance of Clusius' remarks: These two new forms had but recently been noticed, and had not been described elsewhere. He had not seen their flowers until the end of April, 1593, though the plants were sent to him two years previously by one John Boisot, who directed that they should be kept in a pot or somewhat starved, for if treated too liberally they will degenerate and give single flowers.

Then follow descriptions, both of which mention that the involucral leaves are repeated just beneath the flowers, and that the carpels are visible in the centres of both, and they possess a scent like that of Barberry. They were found by chance a few years previously in two different woods in Belgium. I do not think Gerard could have seen the Belgian plants. Had he done so, it is not likely he would have overlooked the very remarkable repetition of the involucral leaves under the flower.

Johnson in his additional note mentions that both the double white and double purple have leaves on two places of their stalks; but then he was using Clusius' figure, and probably never saw either of his plants nor Gerard's form.

Parkinson, in the "Paradisus," has copied Clusius' figure and description of the double purple, but seems to have had personal knowledge of a double white, adding a little information, I take to be original, as to its changing colour after being full-blown and never giving seed. I do not recognise the figure he gives of it as copied from any I know, and though it is a clumsy one, and suffers from having been squeezed into a corner, it might represent the pretty regular double form, for it is full to the centre and has no second whorl of involucral leaves. In his description he says it shows a small head in the middle, but he has not drawn it; and as he erroneously gives its origin, misquoting from Clusius, as in the wood near Louvain in which the double purple was found, this small head may also be an impression from Clusius. In the "Theatre of Plants," Parkinson gives a figure of the bracteata form in the Appendix, but without remark. This figure is for the most part copied from Clusius', but has an enlarged and apparently original drawing of a flower by the side of the whole plant. It shows the second whorl of involucral bracts, and the bunch of carpels in the centre of the flower.

Pulteney, in his delightful "Sketches of the Progress of Botany in England" (1790), tells us in Chapter XII. the history of the woodcuts used by the old herbalists, and how Egenolf, a bookseller of Frankfort in the middle of the sixteenth century, engaged artists to make woodcuts for him, thus obtaining a monopoly of printing Herbals. Others followed his example and, notably Plantin of Antwerp, acquired a very rich collection, which served for many years to illustrate botanical works. Parkinson's blocks, chiefly copied from older ones, appear to have been cut in England, and though inferior to the originals, are interesting as being, with the exception of the rude icons of the "Grete Herbal" (1526), the first of English manufacture, Turner, Lyte, Gerard and Johnson having obtained theirs from the foreign printers.

Ranunc. silvar. pleno flore purpurasc.



CLUSIUS' DOUBLE PURPLE WOOD ANEMONE.

I fear the fascination of trying to identify the plants of these old writers has led me into a side path, which is, however, not devoid of interest to many lovers of the Anemone. Even then I have not proved very clearly that Gerard's double form was my favourite neatly-formed variety; but I think it possible it was, and also a home product. Anyway, I much prefer it to bracteata flore-pleno, which is an irregular nightmare of a flower, and has but a clumsy neck, short and thick; very often, too, the involucral leaves are mixed among the sepals, some of which at times have green stripes in them, or are stained with a dull, livid purple. Then how unreliable it is! varying much in different years, and you cannot foretell what it will do next—a veritable Mad Hatter of the Anemone world. Next week I hope to pass in review some of the blue-flowered Anemones, among which are to be found some of daintiest and most attractive of all our garden flowers.

E. Augustus Bowles.
Myddelton House, Waltham Cross.

(*To be continued.*)

THE CARNATION AND PICOTEE.

VERY few amateurs really understand fully the different sections into which the Carnation is divided or the cultural requirements of each. Except for garden purposes or for exhibition, the Picotee is merely a colour form of the Carnation, and the treatment it requires is the same. What is termed the show Carnation, that is, the bizarres and flakes, likewise the Picotee, also included in the term "show," are grown by thousands of fanciers in Great Britain and the Colonies. They have been classed under the term "Florists' Flowers" for more than 100 years.

A rather lengthened experience among cultivators of these flowers (that is, all classes of Carnations) has led me to the knowledge of two distinct types or classes of cultivators—first, the stern old florist who can see no beauty in a Carnation or Picotee outside his well-known knowledge of the properties of a show or exhibition Carnation or Picotee; and, secondly, the grower of what are termed border Carnations.

As I am supposed to be an expert in Carnations, I am frequently asked to define the various sections, or the question is put, "What is the difference between a Carnation and a Picotee?" It would be well if I not only explain the difference between a Carnation and a Picotee, but also, in a few words, define the Carnation itself.

The bizarre is one of the oldest types of Carnation, and is divided into three sections, principally for exhibition purposes. The scarlet bizarres have a white ground, flaked and striped with scarlet and maroon. Crimson bizarres are crimson and purple on white. Pink bizarres are pink and purple on white. The faults of all of them are stains or spots and bars on the white ground; very few varieties have the white quite pure. The flakes are also divided into three sections—purple, scarlet and rose. These colours are in flakes on a white ground. Perfect form of the flowers and petals is essential. The Picotees are now in two sections, white and yellow grounds, each being divided into sub-sections of colour margins, broad and narrow. A perfect Picotee should have a margin of colour, but no spots or bars on the white or yellow ground. The colours we already have are red, purple and rose, light and heavy margins. Thus the same colours exist in a Picotee as in a Carnation; it is the arrangement of the colours which is the distinguishing mark.

Culture Under Glass.—About thirty years ago or more, a prominent editor of one of the gardening journals scoffed at the idea of growing a hardy plant like the border Carnation under glass. His knowledge was not of a practical kind, for he thought the plants were grown under glass all the time; whereas they were placed in a light, airy greenhouse when the flower-buds had arrived at the point when the colour of the petals could be discerned. It was, and is still, necessary to take the plants under glass in order to fumigate them to destroy thrips. These lively insects will ruin the finest flowers, and by some mysterious process they will get at the petals when they are yet enveloped in the calyx. The most perfect flowers are obtained from all classes of border Carnations if they are grown in flower-pots part of their time out of doors and brought into the greenhouse to develop their flowers in July; and there are no sweeter, lovelier flowers at that time of the year than the various sections of border Carnations. The Malmaison types have then passed out of bloom, and the time of the Perpetual-flowering Carnation has not arrived; moreover, the colour and form of the flowers of the border Carnation are far superior to either those of the Malmaison or Perpetual-flowering varieties. I may add that last year was good for Carnations planted in the borders. I had hundreds of perfect blooms in my garden on a chalk subsoil.

March and April are good months in which to plant out border Carnations if they have been wintered in small flower-pots. Those grown in pots may be planted in their flowering pots any time in February. I am writing on February 4, and we have already nearly 5,000 repotted into their flowering pots. We plant a pair of plants in 8-inch and three in 9-inch flower-pots. The soil used is as good loam as we can get. Fibrous turfy loam is best, and to kill any grubs or wireworms it may contain we mix it with a fourth part of fresh horse-droppings; this causes a considerable heat, which, with the ammonia from the manure, causes the death of the hardiest enemies of the Carnation. It is ready for use in four or five months. The loam and manure should be built up in a square heap, containing at least three cartloads. Drain the pots well and press the soil firmly around the roots. They should be planted up to the first pair of leaves, but do not bury any of the leaves in the soil. See also that the plants are free from green fly before potting them. We cover the plants with frame-lights until they are moved out in the open garden after the middle of March.

Those that are planted out in the open garden should have good, deep soil. Success cannot be obtained (or at least the best results cannot) unless the soil is well prepared. A man cannot be a successful cultivator even of Potatoes or Cabbages unless he gives them good soil. Whatever is worth doing at all in gardening is worth doing well. In wet and heavy soil it is best to raise the beds 3 inches or 4 inches above the surrounding level. Plant well and firmly about 15 inches asunder. As this is the best time to purchase the plants in pots for spring planting (it is absolutely necessary that they should be wintered in pots for this purpose), I name a dozen in each section:

Flakes and bizarres.—Admiral Curzon, Robert Houlgrave, J. S. Hedderley, Master Fred, Sarah Payne, William Skirving, Gordon Lewis, George Melville, John Wormald, Torchlight, Merton, and Meteor. *White ground Picotees.*—Brunette, Grace Darling, Princess of Wales, Thomas William, Fanny Tett, Queen of Spain, Harry Kenyon, Somerhill, Fortrose, Favourite, Mrs. Beswick and Little Phil. *Self colours.*—Cardinal, scarlet; Elizabeth Shiffner, orange buff; Mrs. Robert Gordon, pink; Sir Galahad, white; Agnes Sorrel, maroon; Daffodil, yellow; Helen Countess of Radnor, crimson; Hildegarde, white; Lady Hermione, salmon; Mrs. Robert Morton, apricot; Miss Willmott, coral red; and Robert Berkeley, scarlet. *Fancies.*—King of Spain, Mrs. Fred Gardiner, Charles Martel, Linkman, Father O'Flynn, Pasquin, Hidalgo, Robert Morton, The Bride, Highland Lass, Lord Steyne and Sam Weller. *Yellow ground Picotees.*—Margaret Lennox, Exquisite, Cymbeline, Lady Freemantle, Togo, Archie Brown, John Ruskin, Flora McIvor, Lady Douglas Galton, F. W. Goodfellow, Santa Claus and Her Majesty.

The above are not new varieties unobtainable except by rich people. Some of the varieties have been grown for years and are by no means expensive. There are others perhaps as good, but these are my own selection for all the purposes Carnations are grown in gardens.

JAMES DOUGLAS.



A GRACEFUL BORDER PLANT: ERIGERON SPECIOSUS SUPERBA.

ERIGERON SPECIOSUS SUPERBA.

MANY people would think this rather tall-growing Erigeron unsuitable as an edging to a border, but the illustration shows it in this capacity. This plant is difficult to stake; it either becomes an untidy bundle or lies on the ground like a wind-blown sheaf. Last spring, as it started into growth, short twiggy Pea-sticks were stuck among it, and as the stems lengthened they were pulled through these sticks. I endeavoured to vary the level of the young shoots as much as possible. By June this Erigeron made a beautiful edging, graceful without untidiness, and every flower showing to advantage. This end of the

border was a colour-scheme of blue and mauve; behind the Erigeron was Campanula persicifolia Hermosa, backed by clumps of the rich blue-purple of the King of Delphiniums. Campanula carpatica and Viola Bridesmaid—spring-struck cuttings—followed in place of the Erigeron; and last of all, when any colour is welcomed, came late-flowering Helianthus Miss Mellish (shoots of this can be seen in the illustration). This is root-pruned in the spring, and later on is stem-pruned to prevent it invading the whole border; such drastic measures only improve the blooming powers of this vigorous Helianthus.

Abergavenny. E. M. Whitehead.

THE GREENHOUSE.

SOME WELL-GROWN PLANTS OF CŒLOGYNE CRISTATA.

THE accompanying illustration represents this old yet beautiful cool-house Orchid growing in the gardens at Farmhurst, Didsbury, Manchester. The photograph was sent to us by the gardener, Mr. G. Towe, with the following note: "To grow this Orchid well use clean pans or pots, with plenty of crocks at the bottom to give good drainage. Then place a layer of rough sods or peat over the crocks, and pot with a mixture of peat and loam in lumps, with sphagnum moss and charcoal broken up to the size of a Nut. Add some silver sand and mix all well together. Fill the pans or pots to the height required, lay the pseudo-bulbs over the material, just put a little of the fine soil among the bulbs, and water in with tepid water. Afterwards water with care till they have started to grow; then give plenty of water till the flower-spike is formed. When this happens withhold water for a time, except just a little to keep the bulbs from shrivelling and to bring the flowers to perfection. A suitable temperature is 65° by day and 55° at night. When in flower move to a cooler house with a dry atmosphere."



CŒLOGYNE CRISTATA IN THE GARDENS AT FARMHURST, DIDSBURY, MANCHESTER.

ARUM LILIES IN NEW ZEALAND.

As I see you welcome photographs of plants, I enclose one of Arum Lilies which I thought might be interesting to other readers. These Lilies, which are about 6 inches or 7 inches broad, are growing in a little wooded gully quite wild, and cover an area of about 7 yards by 80 yards. A. B. Matthews.

Fitzroy, New Plymouth, New Zealand.

CANNAS FOR THE GREENHOUSE AND OUTDOOR GARDEN.

These stately plants are attractive wherever they are grown. They are what I may term all-round useful plants suitable for the embellishment of the greenhouse, dwelling-room window, flower garden, or large tubs and vases. The leaves are richly coloured, being dark green, glaucous, dull crimson and chocolate tinted, and are handsome even without the grand Gladiolus-shaped flowers, with their deep orange, scarlet and yellow colours. Some flowers have salmon, carmine scarlet, crimson and copper shadings, and altogether are extremely attractive. These lovely pot and border plants can be easily raised from seeds sown early in March, or towards the end of that month where a fairly strong artificial heat is not available before that time. The seeds are large and very hard; and in order to hasten their germination it is advisable to place them in water heated to 85° for several hours before sowing them.

When the plants are well established they will thrive splendidly in a rather heavy loam enriched with rotted manure; but for seed-sowing purposes and for the potting of the plants while they are in a young state, a medium light, sandy compost must be used. The seeds may be sown in large pots or boxes, but I prefer to sow them singly in deep 3-inch pots; then the resultant plants need not be disturbed much when the first potting is necessary. If they must be taken from a box or large pots, nearly all the soil drops away from the roots, and then they suffer some check at the first potting.

When the seeds are sown the pots should be plunged to their rims in a bottom-heat either in a propagating-frame or in a hot-bed; if neither is available, put some Cocoanut fibre in a box, plunge the pots in the fibre and place the box on the hot-water pipes, covering the top with glass. Directly the seedlings appear, begin to expose them to air and light. A regular moisture must surround the pots, and this can be assured by keeping the plunging material wet.

A warm frame or greenhouse will suit the plants nicely until the beginning of May, when rather cooler structures will be better if it is intended to plant the Cannas in the garden. If retained for greenhouse and conservatory decoration, grow on the plants in the warm structure.

As soon as the flower-spikes appear, the plants must be judiciously fed. The dwarf-growing varieties are very suitable for cultivation in pots. Crozy's New Dwarf Hybrids are the best for this purpose; the plants flower directly they are established, and continue to do so until late in the season. The following are also very beautiful varieties: Jules Chrétien, purple cerise; President Carnot, rich red; Gloriosa, crimson and yellow; Miss Bertie Brunner, yellow, spotted carmine; President Kruger, salmon red; W. Watson, deep salmon; W. Saunders, rosy crimson; Venus, rose pink; Königin Charlotte, red and gold; Jupiter, red, bordered yellow. Avon.

THE KITCHEN GARDEN.

THE CULTIVATION OF BEETROOTS.

DURING the past few years there has been considerable improvement among Beetroots, notably in the early Turnip-rooted section. The last-named are more shapely and of much better quality than the older poor Egyptian Turnip-rooted. There is in the new forms an absence of white streaky lines, and the colour is all one may desire. Many years ago I grew my own late Beetroots for seed purposes, as I had a splendid stock of Cheltenham Green Top, a variety for which I gained a certificate from the Royal Horticultural Society. This is still a splendid root; indeed, even now I do not know of any variety that is superior to it in colour or quality. But it has a fault in rich land—it is inclined to grow coarse, so that for a late supply the seed should not be sown till May, and then in land not recently manured.

Few vegetables force more readily than the Globe Beets if early roots are desired. I invariably sowed a box of seed in a warm house; then, when above the soil, transferred to a cold frame and pricked off into boxes, and later on to a warm south border; this gave roots very early. I have at times grown the roots to the finish in boxes in frames. Many growers may not require to force roots, but at the same time need an early supply. Here I would advise a warm south border sheltered by a wall from north winds, and to sow

early in March in a rich friable soil, and thin early. I omitted to note an important detail as regards the forcing or transplanting—that great care must be taken that the tap-root is not broken; this, especially with Globe Beets, is most important. For early sowing there are some excellent Globe varieties, and, I would add, roots that are noted for their shape, colour, quality and earliness. Under this heading come The Sutton Globe, Dobbie's Selected Globe, Carter's Crimson Ball and the Improved Globe Beet. Any of these are excellent for sowing as an early supply, for forcing, and what may be termed the summer supply. The latter is an important one The Globe Beets are of great value from June to October, and for this purpose seed should be sown early in April on an open, well-worked soil not too heavy. If the soil is at all wet or clayey, give a liberal top-dressing of burnt refuse or wood-ashes. I have used road scrapings with advantage when these can be had from clean roads (I mean roads not much frequented by motor traffic). Seed sown in April soon germinates, and, given a well-worked soil, Globe Beetroots mature rapidly. I have in the South sown in March, but as regards this so much depends upon the soil and locality.

This section, in my opinion, is of great value to the amateur and those who have poor or stony land, as it does much better than the long-rooted kinds. I have been obliged to rely upon these roots entirely in a shallow soil, as the quality of the long roots is much impaired in unsuitable soils, whereas the Globe section with a small tap-root and a small number of fibrous roots thrives. In poor land it may be advisable to make a spring sowing, and a summer one for keeping purposes. The Globe Beets named above keep splendidly in a cool store, and, as they mature quickly, by sowing early in August roots of just the required size may be had for a winter supply. Large roots should be avoided, both with these and the long-rooted kinds. In the South, on stony soil with only a few inches of real good soil, I have made three sowings—March, May and August. In all cases I would strongly advise a good variety, as some of the older Turnip-rooted Beetroots are not worth sowing, being of poor quality, streaky white and flavourless.

The long-rooted section comprises a much greater variety, and there are some very fine types. Take, for instance, Dobbie's Purple. This is an ideal root, not coarse, with dark purple flesh and splendid quality. Veitch's Red has the same excellent qualities, also Carter's Perfection, a very fine type of root, with rich crimson flesh of fine quality. Of the darker-coloured roots there is Sutton's Black, a very distinct sort, not coarse, but a grand keeping root; indeed, I have had this good twelve months from the time of sowing; it is excellent for late use. Another very fine root is Sutton's Green Top; this is noted for its firm, sweet flesh, quite free from any earthy flavour, and is an excellent keeper.

In sowing the long-rooted Beets it is well to give plenty of room between the rows, and also to thin early, as once the roots start away freely it is well to keep them quite firm at the base. Much depends upon storage. A cool shed or place just free foom frost is best, with plenty of soil or sand between the roots to prevent shrivelling. Large, coarse roots should not be stored, but used at once. In severe weather I have found it advisable to use some litter or Bracken to keep the roots from severe frost.

G. WYTHES.



ARUM LILIES (RICHARDIA AFRICANA) GROWING WILD IN NEW ZEALAND. (*See page* 119.)

THE TOWN GARDEN.

EARLY HARDY FLOWERS.—The coming of the earliest hardy flowers—the advent of the Winter Sweet, Winter Aconite, Wych Hazel and Snowdrop—is ever a welcome sign, since their presence is a foretaste of the greater riches that are in store. And now, in the earliest days of March, when the afore-mentioned truly winter flowers are on the wane, we turn to that greater wealth of beauty which Hepaticas in red, white and blue, Adonis amurensis, with Davallia-like leafage and golden blossoms, Snowflakes and the early hardy Cyclamen, such as C. Coum and C. ibericum, afford. Nor would we willingly omit the quaint beauty of the Lenten Roses, always seen at their best when fringing the sheltered border or as a margin to the more sequestered of woodland places, where, away from biting and cutting winds, they not only hold their own, but, by retaining their leafage to the full, play a by no means unimportant part in garden scenes where so few plants thrive to perfection. Then there is an indisputable charm about the blue of the Grecian Windflower (Anemone blanda), a rare carpeter of the soil in spring, and quite happy in the shelter of a sunny border. Iris reticulata, too, is lovely now in its robing of royal purple, while its fragrance—richer and more pronounced than that of the Violets—is beloved of all. The plant detests cold clay soils, but is quite happy in those of peat or very sandy loam. One might continue to name other good things, but the above are of the indispensable class, to be overlooked by none.

FRAGRANT PRIMROSES.—All the plants named above are quite hardy, but one might direct attention to a trio of beautiful Primroses suitable for the cold, or at least the frost-excluding, greenhouse. These are Primula kewensis, P. k. farinosa and P. verticillata, all of which have a value of their own as pot plants. That last named, in addition to its well-marked mealy foliage, is also richly endowed with the fragrance of the Cowslip, always more pronounced when the plants are grown in a warm greenhouse or sitting-room. The flowers are of yellow shade in each instance, those of the first named being of quite a rich yellow colour, and the last of deep primrose tone. As room plants these Primroses are quite out of the common, and, being so nearly hardy and very free-flowering, are highly desirable as such. They are easily raised from seeds, or plants may be obtained at a cheap rate.

BORDER CARNATIONS IN FRAMES.—Those of my readers who still have these plants in pots in a frame should examine them often and the more frequently should the garden be adjacent to field, market-garden or orchard. This bit of advice is intended also as a warning, inasmuch as the short-tailed field-vole is more than usually troublesome and active. The pest, too, is particularly fond of the Carnation, and it is really wonderful how great an amount of destruction it will cause in a short time. Pressed by hunger, it is much bolder than some members of its tribe, and a stem is snapped off in an instant. Existing chiefly on roots, grasses and the like, the ordinary baits of meat or cheese do not tempt the field-voles, and in lieu of these I bait the little "Cert" mouse-trap with a small bunch of Carnation leaves, a bait which rarely fails. Broad Beans and Peas are also favoured by this pest, whose sense of smell is so acute that it will discover every seed of the former without fail when planted 1 foot apart and at a depth of 6 inches in the soil; hence I advise my readers to be on their guard.

EARLY-FLOWERING CHRYSANTHEMUMS.—Where the old plants of these were lifted and afforded the shelter of a wall or frame after flowering last season, they should be examined at once to see if all is well with them. The plants should now be alive with new shoots suitable for cuttings, and if such are not present in goodly numbers, they have probably been eaten off by a small slug which secretes itself below the surface soil. It often happens that very serious and irreparable damage is done by this pest, which must be sought for and destroyed. In some instances it may be necessary to transfer the plants to the greenhouse, where a new growth will quickly appear.

S. N. N.

GARDENING FOR BEGINNERS.

GARDEN HEDGES AND THEIR TREATMENT.

A PROBLEM that faces almost every person who acquires a new house and garden is that of making the boundary lines of the latter as interesting in appearance as possible, and at the same time carrying out the work satisfactorily consistent with a reasonable cost. Many persons make their boundaries of wooden fences—closed and open—or of brick and stone walls. These erections are costly, and they are seldom pleasing in appearance. It is quite true that once these boundary barriers are erected they may be regarded as of a permanent nature, and the garden immediately benefits by the shelter from cold blasts that such erections afford. Well-managed hedges, however, are much better in every way. Not only are they useful so soon as they attain reasonable dimensions, screening the less robust as well as the choicer subjects of the garden from trying climatic conditions, but they are exceedingly ornamental and form a delightful live framework to the garden as a whole.

The deciduous subjects that make excellent hedges and screens are as follows: Beech, Berberis, Hornbeam, Myrobalan Plum and Quick. The planting of the foregoing may be done at any time between October and March. Beech 18 inches to 2 feet in height should be planted 9 inches to 1 foot asunder; larger plants, say, 2 feet to 3 feet in height, 1 foot apart. Berberis are seldom planted when the plants exceed 2 feet, and they, too, should be planted from 18 inches to 2 feet from one another. The Hornbeam requires more room. The plants should be from 2 feet to 3 feet high and disposed 1 yard apart. Myrobalan Plum and Quick are usually planted 6 inches and 4 inches respectively apart when the plants are 1 foot in height. Provided immediate steps are taken, any of the foregoing deciduous subjects may be planted with the prospect of a successful issue. Of evergreen hedges it is impossible to speak too highly, but the period of planting most of them comes at another season.

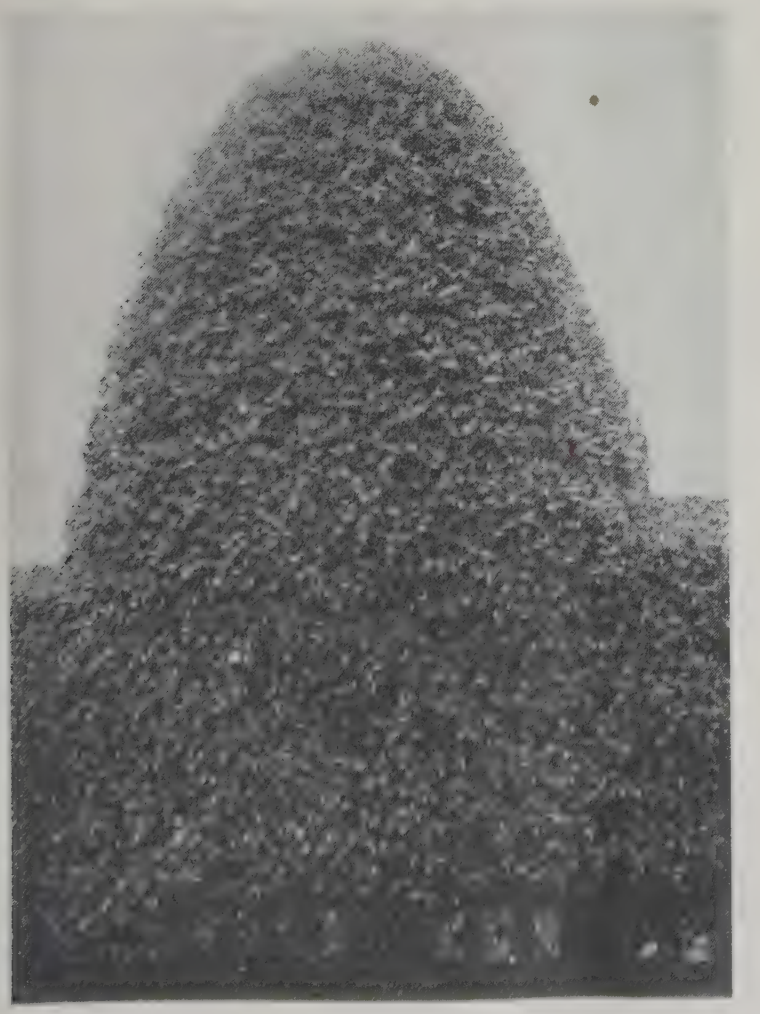


1.—A WELL-GROWN HOLLY HEDGE—AS BROAD AS IT IS HIGH.

It is to the Holly, however, that I desire to draw especial attention in the present instance. Although it is a plant of slow growth, especially where the soil is of a heavy, retentive character, I should be disposed to plant this subject in preference to many other evergreen plants suitable for the same purpose. Any good ordinary soil will grow the Holly satisfactorily, provided it is properly prepared. A rich sandy loam, however, seems to suit this subject admirably. Should the soil be dry and hungry, a heavy dressing of well-rotted stable manure should be incorporated when the ground is being dug over. A space about 3 feet wide where the hedge is to be planted should be dug two spits deep, and large pieces of chalk, large stones, &c., removed therefrom. Where the ground is of a heavy, retentive kind, the soil should be thrown up in the form of a ridge.

Planting may be done in April and May and in September. The late spring planting will give readers ample time to prepare the ground for the plants. If possible, select a dull, damp day for the planting, and endeavour to expose the roots to the air as little as possible. Should the weather be dry, place the roots in water till the plants are actually required for planting, and in this way lessen the risk of failure. Place Holly plants 9 inches to 1 foot in height 1 foot asunder; those 1 foot high, 1 foot to 15 inches apart; and for plants 15 inches high allow a space between of 18 inches. With a spade take out sufficient soil to spread out the roots, embedding each plant just below the soil-mark noticeable on the main stem. Proceed along the row or line in the following manner: As the first plant is adjusted in position, dig out the hole for the next plant, covering the roots of the first plant with the soil taken out of the next hole, and so on throughout the whole length to be planted. This saves time and labour. Make the soil firm round about the plants by treading. Subsequently, at a convenient period, a thorough watering should be given; this will settle the soil round about the roots and, further, assist in establishing the young plants. For the first two years it is advisable to allow the young Hollies to grow away freely; no pruning or trimming should be practised during this time. After this period side shoots should be carefully trimmed, which will have the effect of making the lower portion of the growth bushy. The leading growths at the top of the plants should be allowed to grow along unrestricted until the desired height has been attained. Holly hedges must be trimmed in pyramidal form in their early years, and in subsequent years be rounded on the top. I give an illustration in Fig. 1 of a carefully-developed Holly hedge that I have admired from my boyhood. It is almost as broad as it is high, and is an example of what can be grown within five miles of Charing Cross. Another system of trimming hedges is that of leaving a few strong shoots at regular intervals along the top of the hedge and training these in the form of cones. Such a method, in the opinion of some growers, breaks up the even and rounded lines of the top of the hedge, but it is purely a matter of taste. In Fig. 2 a smaller Holly hedge, in which the latter method of trimming has been observed, is shown. The common Holly (Ilex Aquifolium) is more often used for hedges than any other type or variety.

D. B. Crane.



2.—CONES MAY BE TRAINED AT INTERVALS.

HOW TO GROW BROAD BEANS.

The Broad Bean plant, if well grown, will bear pods almost from the bottom to the top of the stem. In many instances, however, it may be noticed that the plant only bears a few large pods near the centre of the stem; the basal flowers have prematurely shrivelled, and those near the top have either done so, too, or have been so badly infested by black aphides that they have never fully developed. In the majority of cases, the unsatisfactory condition of the plants is brought about through overcrowding and lack of nourishment. The seeds are generally sown too thickly; consequently the plants have not sufficient space in which to grow, and many bottom blooms shrivel. Those near the centre get more light and many of them set well enough; then, owing to the overcrowding of the plants, they do not get sufficient nourishment and so become weakly, the flowers fall a prey to black aphides, and a big loss occurs. The whole of the plot should be well manured with rotted manure, the latter being well mixed with the soil, and not merely buried wholesale in single trenches. Instead of sowing in double rows, the seeds being about 4 inches apart, sow them in single rows, 7 inches from seed to seed in the case of the earliest varieties and 9 inches for late ones. The rows must be 18 inches asunder; thus each plant will stand firmly upright and not be easily blown over, and a splendid crop of pods will result.

B.

THE ROSE GARDEN.

SEASONABLE WORK IN THE ROSE GARDEN.

APART from the important question of pruning, there is much to do in March and early April. After the prunings are collected, mulchings that were applied during winter may be lightly forked in; but this should not be deep enough to disturb any roots. As a matter of fact, the spade is generally used too deep when working among established plants, with the consequent destruction of numerous feeding roots only a little below the surface. If a mulch has not already been added, the present is a very suitable time; but I would slightly move the surface before putting this on when mulching in spring, as this will not only cultivate the soil, but allow a better and freer percolation of manurial properties. Standards should be made perfectly secure for the coming season, any swaying of these being particularly injurious. Care must be taken to have their supports sufficiently strong and firm to last throughout the summer. At this season, too, lichen growth, so often found upon our older plants of standards, should be removed or checked in some way. The bulk may be scraped off so long as one does not injure the bark. After this a little slaked lime may be applied with a brush. I once saw this used when it was mixed with size or some glue similar to that used upon walls and ceilings. This adhered too tightly, and was rather an eyesore for most of the summer. A plain mixture of lime and water will answer the purpose very well, and it will have gone off by the time the Roses are in pleasing growth. The same plan might well be adopted upon the stems of some of the oldest favourites on walls and fences. It is simple, effective and perfectly safe.

For filling up blanks, and in all cases of late planting, I prefer to turn out from pots, for although catalogues say "Roses can safely be planted from November till March," things must be very favourable if they are to do well when transplanted so late from the open, while those from pots do not suffer from root disturbance; in fact, an established pot plant is much benefited by the change to fresh quarters. Make the soil firm around plants put in late. Those planted during last autumn will generally be quite firm enough from atmospheric and wind pressure, but on no account plant or tread firmly on wet soil; it is far better to wait a few days, so that the whole work can be done in a way more congenial to the roots. A. P.

PRUNING WICHURAIANA ROSES.

MANY amateurs are in doubt as to pruning the rambler Roses, and they are ignorant very often as to the difference in nature between the multiflora ramblers and the wichuraiana ramblers. With the latter section there is no need to be so free in discarding old wood as with the former. The multiflora ramblers require plenty of young, well-matured growths, but the wichuraiana group will yield grand crops of blooms from old growths for several seasons, providing always the lateral shoots are cut back severely. This is why one is able to quickly cover a house wall with a Dorothy Perkins where Crimson Rambler would be a failure, apart from the fact that this Rose abhors a wall or any very dry aspect, where red spider soon spoils all one's efforts. When pruning these Roses—and they may be taken in hand by the middle of the month—the facts mentioned above should not be overlooked. Dorothy Perkins will often produce a lot of soft growths late in the year, and obviously these are useless and should be cut away; but we must take care of the well-ripened young rods and train them out well, and, if too many growths remain, one or two of the oldest and most worn-out should be sacrificed.

While writing upon the subject of rambler Roses, I would advise all who desire to make a good display at Coronation-time to procure pot plants at once and grow them outdoors for a time. They can be taken under glass a week or two before this great event, and by judgment displayed may be had in bloom when desired. They make splendid subjects for placing about the garden when in bloom, even if not wanted indoors. Just sink their pots in the soil, keep the plants well watered, and they will last for a long time. P.

THE EDITOR'S TABLE.

FLOWERS FROM A SUSSEX GARDEN.

We have received a box of flowering shrubs and bulbs from Mr. W. A. Cook of the famous Leonardslee Gardens. Among the flowering shrubs sent are Erica lusitanica (better known in gardens as E. codonodes), Grevillea rosmarinifolia (a native of New South Wales, with crimson flowers), the early-flowering Rhododendron præcox and the sweet-scented Daphne japonica. Bulbous plants were represented by Crocus Sieberi, of a lovely pale mauve shade, and the small yellow flowers of Narcissus minimus.

PRIMULA OBCONICA AND ITS VARIETIES.

From Messrs. William Artindale and Son, Sheffield, we have received some very fine flowers of Primula obconica. The colours range from deep crimson to pure white. The strain is particularly good, and the flowers, which are remarkable for their size, are borne in heavy trusses. Some of the flowers are fimbriated, while others show signs of petalody.

NEW PLANTS.

PRIMULA WINTERI.—An exquisitely beautiful and fascinating species from the Himalaya, where it obtains at an altitude of 12,000 feet and upwards, not far removed from the limits of eternal snows. As shown, the 4-inch or so high plants were covered by dense farina, the whole plant, save the expanded flowers, being so covered. The flowers are of large Primrose size, varying in the examples shown from pale to deep mauve, and rendered conspicuous by a large central white circle, which extends to the tube of the flower. The plant is as profusely flowered as the common Primrose, the flowers, solitary for the most part, terminating the 3-inch-long stalks. There was, however, in one plant at least an indication of a Polyanthus-like truss. We hope it will not be so, since we would fain see the solitary blossoms in conjunction with such well-marked leafage. The shortly-stalked leaves have a nearly circular blade, slightly crenated at the margin. An absolutely unique plant, and the greatest acquisition since the coming of P. rosea. Exhibited by Messrs. R. Gill and Sons, Falmouth. First-class certificate.

Saxifraga bursiculata.—A very beautiful and useful addition to the early white-flowered Saxifrages. The new-comer is a hybrid resulting from the intercrossing of S. burseriana major and S. apiculata, the first-named being the seed parent, the latter the pollen parent. The flowers are in trusses as in S. apiculata, the greenish peduncles and calyces also favouring that parent. The spotless purity of the flowers and the slightly-crimped character of the petals are the unmistakable evidences of the seed parent. In habit of growth the acutely-pointed glaucous leaves favour S. burseriana major, while in general characters, *e.g.*, the disposition of the leaves of the rosettes and vigorous growth, there is a pronounced S. apiculata influence. The finely-flowered example shown was greatly admired by the leading hardy plantsmen present. Exhibited by the raiser, Mr. E. H. Jenkins, Hampton Hill. Award of merit.

Cymbidium Veitchii.—A true hybrid from the distinguished parents, C. lowianum and C. devonianum. The plant shown carried a strong spike with fourteen flowers, sepals and petals bronzy green, lip deep purple brown. The spike, like C. devonianum, has a tendency to droop. In general appearance the hybrid is midway between its well-known parents. Shown by Messrs. James Veitch and Sons, Chelsea. Award of merit.

The foregoing plants were exhibited before the Royal Horticultural Society on February 28, when the awards were made.

BOOKS.

British Ferns and their Varieties.*—This is at least the third book devoted to British Ferns by the same author; but no apology is necessary for the appearance of a work containing so many original observations and interesting records. The author devotes a good deal of attention to variations in our native Ferns, most of which belong to the crested section and a few to the plumose or extra feathery section. It is known only too well that plants under cultivation, whether Ferns or flowering plants, often show great variation in form, and it is usual to attribute this unfixity to high cultivation. It will be seen, however, from the following extract that such an explanation cannot hold good when we consider the remarkable faculty that our native Ferns have for departing from the normal type: "It will need but a glance through these pages to appreciate the inventive power of Nature and the diversity in form which one and the same species is capable of assuming at her magical touch. Why this should happen is utterly unknown to us. Theories have been put forward that 'sports' indicate a sympathetic response to environmental influences, but no observant Fern-hunter can agree to this, as the widest variations may be, and often are, found associated with the common forms, their roots and fronds intermingling so that the environment is identical. Widely different forms, dwarf and congested, robust and lax, may be found on the same hillside, with the same aspect, soil and general environment, so that the inducing cause of the change must be sought elsewhere, and so far has entirely baffled research." Thus, once again the specialist has to admit defeat on the perplexing problem of the origin of sports and variations. On the question of nomenclature the names given are those generally recognised by British Fern-growers, and the author explains that he has purposely steered clear of that terrible quagmire involved in the infinite number of synonyms, or different names for the same thing, resulting from varied and frequently mistaken views on the part of those botanists who make classification and nomenclature their study, many of whom, too, are constantly inventing new names for old friends, and thus turning confusion into chaos. A special feature of this book is seen in the splendid illustrations from Nature prints, of which there are ninety-six. These, we read, were selected from some 300 printed from the fronds by the late Colonel A. M. Jones of Clifton. The book also

* "British Ferns and their Varieties," by C. T. Druery; price 7s. 6d. net. Messrs. George Routledge and Sons, Limited, London, and E. P. Dutton and Co., New York.

contains forty coloured plates and 319 woodcuts and other illustrations. An index to the coloured plates and Nature prints is given, but we regret to note the omission of an index to the numerous woodcuts and other illustrations. It was over twenty years ago when the author published "Choice British Ferns," which was followed in 1901 by "The Book of British Ferns." In the interim, however, there have been further developments and "finds," and in the work now before us the subject is still more up to date. It is written in a pleasant style and represents the last word on British Ferns.

DAFFODIL NOTES.

NATIONAL DAFFODIL SOCIETY.—As I am taking a rather prominent part in the attempt that is being made to form a national Daffodil society, I naturally am thinking a good deal about it, and I am watching the ebb and flow of the tide with particular interest. I fear my remarks, which were referred to in the leader in THE GARDEN for February 25, were considered by Mr. Cranfield and some others as being in the nature of a wet blanket. Such, however, was not what I intended them to be. They were prompted by my feeling of gratitude and respect for what the Royal Horticultural Society had done for the Daffodil as a flower in the past. I felt it would be an ungracious act to set up a new society without finding out how far the Narcissus committee could be made to perform the functions appertaining to such a body.

Tuesday, the 28th ult., was a day full of *parlers* and *pourparlers*. It was not, however, a wasted day; far from that, for when evening came, the ideas, which previously had been without form and void, thanks to the kindly sympathy of the Rev. W. Wilks and the delicate finesse of the committee's new chairman, Mr. E. A. Bowles, were obviously beginning to crystallise out and the possibilities and probabilities of the situation were better understood. The position is this: (1) The Royal Horticultural Society will do a very great deal. (2) The work and place of the Midland Society must be taken into consideration and fully recognised. (3) The aspirations of those who wish to see a great national society with a big London show must be satisfied. If these three factors can be combined or harmonised, the thing is done; and then, without any offer of £1,000 for the best bunch of, say, ten or a hundred sorts, or even without any very great outlay of golden sovereigns or silver shillings, the flower will enter upon a renewed lease of life, so much so that I do not think it would be very rash to prophesy the absorption, at satisfactory prices, of all the good varieties that seedling-raisers will have to offer and the coming of a boomlet in the ready way that the middleman trader will dispose of his less expensive wares for some years to come.

I have an idea in my head, which at the moment of writing I have communicated to no one, that I fancy might form the basis of a settlement, as it recognises and, I believe, brings into harmony the three essential factors that must be combined if the result is to be permanent and mutually satisfactory and satisfying. This solution I hope to propose at the meeting on March 14 at the Royal Horticultural Hall, when anyone interested in Daffodils will, whether formally invited or not, be heartily welcomed.

DAFFODILS UNDER GLASS.—One swallow does not make a summer, nor do a few nice exhibits of Daffodil blooms at Vincent Square necessarily mean that the Daffodil season has come; at least, it used not to imply this, but to-day it almost, if not quite, does this. Our season has discovered itself to be elastic, and now it may be said to begin in February. On the last day of last month I had the following varieties in flower in my greenhouse: Circlet, Blackwell, Lucifer, Crown Prince, White Queen, Mervyn, W. P. Milner, Fairy, Fairy Queen, Outpost, Lady Margaret Boscawen, Elegance, Homespun, Castile, Diana, Seagull, Amazon, Firebrand, King Alfred, Southern Star, Orient, Jaune à Merveille, Duke of Bedford, Sunflower, Countess of Southesk, Eyebright, Mme. de Graaff, Constellation, Solfatarre, Virgil, Lycidas, Dante, Aspasia, Peveril, Orangeman and about a dozen old kinds. A problem for the present day is to find out which are the sorts that do well under this early pot treatment and which to avoid.

At Vincent Square on the 28th ult., Lady Tate and Messrs. Bath had some very good examples of the older kinds, such as Golden Spur, Emperor, Victoria, Sir Watkin, obvallaris, Glory of Leiden, Henry Irving and Queen Bess; but the most interesting were the "swallows" that one saw on Messrs. Barr's and Messrs. Sydenham's stands. I noticed King Alfred, Fairy Queen, Albatross, Seagull, Lady Margaret Boscawen, Firebrand, Leonia and Magpie. On the stand of the latter there was a very taking new variety, Hilda. It had a white perianth with a rather large eye or cup, with Irene yellow in the centre and a ribbon edge of pinky brick round it. This soft subdued colouring is decidedly uncommon, and Messrs. Sydenham are to be congratulated on the acquisition of this charming variety. JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

To obtain a blue Sweet Pea (*Freda*).—We fear there is no really intense blue Sweet Pea yet produced. Perhaps Lord Nelson is the best. Most blues, if not all, show some trace of red as well. Experiments in breeding Sweet Peas have shown that the colour is due to several factors. Experimenters have pointed out that there are in the wild Sweet Pea at least six factors present which determine its colour, viz., (1) representing white colour in the flower, (2) representing first sap colour, and (3) representing second sap colour, (4) representing blue sap colour, (5) representing intensification of sap colour, (6) representing reduction of sap colour in the wings of the flower. When all these factors are absent, we have the wild form of flower with purple standard and blue wings; when one or more is absent, other colours will be produced. Thus, if 1 is absent, a cream instead of a yellow ground will result. If 2 and 3 are present, the red colour will show in the flower; but if either is absent, it will not, and the flowers will be either white or cream, according to the presence or absence of factor 1. The blue colour factor 4 is shown only when 2 and 3 are also present, and, naturally, factor 5 shows only when 2 and 3 are present, and factor 6 only when 2 and 3 are present. It is possible that other factors may also be involved, but the various intersections which certainly occur between other factors in the plants have not yet been fully worked out. Whether you would obtain a purple-flowered Sweet Pea from a cross between a red and a white would depend entirely on what varieties were taken to cross together, for, as you will see, white Sweet Peas may carry all the factors for colour but one, *e.g.*, they may contain 1, 2, 4, 5, 6, and yet would be as white as Dorothy Eckford because factor 3 was missing, and so on, down to the presence of only factor 1. In the first case the result would be a flower having the colour of the wild form; in the second it would be red. When seed from the resulting plants was sown various types would be produced, and quite likely among those from the first would be some blues and purple-blues. Probably the best results would be obtained if you started with a blue and crossed it either with another blue or with a white or a cream form. Raise seed from the different individuals quite separately, and next season sow it separately again.

Spurge Laurel (*V. A. M.*).—We suspect that the shrub you have in mind is the Spurge Laurel (Daphne Laureola), not D. oleoides, or D. collina neapolitana as it is sometimes erroneously called. D. Laureola is much nearer D. pontica than D. oleoides in general appearance, the latter being characterised by smaller leaves and purplish flowers. The flowers of D. Laureola, on the other hand, are very similar in many respects to those of D. pontica, but somewhat larger and perhaps more fragrant. The leaves of the two species are about the same size, but different in shape.

Planting round standard Roses (*J. M. R.*).—The following plants are suitable for planting round your standard Roses: Violas in variety, Pinks in variety, Alyssum maritimum compactum and Phlox amœna. Hydrangea paniculata grandiflora should have its branches which were formed last year cut well back to within a few buds of the base. When new shoots appear they must be reduced in number, leaving two or three to each old branch. Your plants of Viburnum Opulus ought not to require pruning. You may apply Thomson's Vine Manure about the time when you start your Vines into growth. It should be applied according to the instructions given with it.

Flowering plants under Pine trees (*W. M. H.*).—Unless you are prepared to make the soil, we doubt if any plants would thrive under the Pines. In the made soil you might plant Gaultheria and hardy Cyclamen, and, a little further, Solomon's Seal, Foxgloves, Evening Primrose and the like without special addition to the soil, though it would be well to dig and dress the ground as much as possible. Many Lilies would thrive in the made-up soil, also Rhododendrons and Azaleas in variety in any positions where slight openings offered. Any of the hardy Heaths may be made much at home in such a spot, while some of the common Daffodils might be tried, though of the complete success of such things we are in doubt. In the making of the Rose-beds, if you could obtain some clay and incorporate this with the other soil, it would be better than manure, though this could be added also. A useful artificial manure is Wakeley's Hop Manure. We strongly advise you, however, to add heavy loam or clay when making the Rose-beds. The cost of this is but a primary consideration, while the disappointments and failures because of its absence are more or less permanent.

MISCELLANEOUS.

Grape rot—information required (*Reader*).—In 1854 the Rev. J. M. Berkeley described a disease of Grapes as follows: "The first indication of the disease is a little brown speck; this increases gradually, forming an orbicular spot of a sienna brown, and preserving a constantly definite outline. This spot separates readily from the subjacent pulp. The surface of the spots, which ultimately occupy nearly the whole berry, sometimes from the extension of one patch, but more frequently from the confluence of more than one, is rough, with little raised orbicular reddish bodies arranged in concentric circles and easily separating from the matrix, which is perforated from their protrusion." The excellent description he gave shows that the disease is the same as one that occasionally attacks Grapes in this country, causing what is perhaps best called ripe rot to distinguish it from a disease produced by a somewhat similar fungus, black rot. Berkeley gave the name Septoria rufo-maculans to his discovery, but his figure shows that the fungus does not belong to the genus Septoria as we understand it now, but to the genus Glœosporium, and it is therefore now called Glœosporium rufo-maculans. Research in America has identified

the fungus as a stage in the life-history of another fungus belonging to the genus Glomerella, and the fungus has therefore been re-christened Glomerella rufo-maculans, under which name it is frequently referred to in American literature. Mycologists now generally regard the similar fungus which attacks Apples and Pears, causing the two well-known bitter rots in these fruits, as identical with that fungus. The form on Apple was also first observed and named by Berkeley, who, although he seems to have recognised the great likeness, which his figures also indicate, between the two forms, considered this sufficiently distinct to warrant a new name, and called it Glocosporium fructigenum, and by this name the fungus has been generally known. The formation of spores on different hosts and cross-inoculations show that it can attack various fruits besides the Grape, Apple and Pear, including Peach, Tomato, Peppers (Capsicums) and Egg Fruits. It is to be remarked that a bitter flavour is not developed in Grapes as it is in Apples. While this fungus attacks the shoots of Apples at times, we can find no record of its attack upon the foliage or shoots of Grapes. The allied fungus, Glocosporium ampelophagum, however, attacks foliage, shoots and fruits. On the foliage it forms small, irregularly scattered greyish spots, bordered by a dark line, and the spots may dry up and drop out. The spots on the shoots are similar but longer, and in the fruits they are circular, becoming larger than on the leaves, and having a bright red ring inside a blackish border. Finally, the Grapes dry up and remain hanging. The same remedies, or, rather, methods, of prevention may be used with both the diseases. Diseased fruits, leaves and shoots should be collected and destroyed. While the Vine is resting it should be dressed with a solution of 25lb. of iron sulphate to which a pint of strong sulphuric acid has been added in a wooden vessel, and then made up to fifty gallons with water, added by degrees. Summer treatment consists either in spraying with Bordeaux mixture or with some other copper solution, or in dusting with flowers of sulphur or spraying with potassium sulphide.

Leaf-mould for seedlings (*J. W.*).—The partially decayed leaves which compose the major portion of the leaf-mould sent are simply covered with tiny fungi. Such being the case, there would be considerable risk in using it for raising seedlings, but for potting later on it might not give any ill effects. We should advise you to damp it a little and keep it frequently turned over so as to hasten the decay of the leaves, and in this way very probably the fungus will be got rid of. Given this treatment, it should be fit for potting in three months from now. Apart from the presence of the tiny fungi, it is a very good sample of leaf-mould. If, after treating it as above advised, the fungus does not give rise to mycelium or spawn, we should consider then that it might be safely used.

Names of plants.—*Mrs. Blair.*—Fresh-water Algæ (Nostoc commune),——*H. McMullan.*—1, Pteris tremula; 2, Asplenium species, frond too immature to identify; 3, Asplenium lucidum; 4, Aspidium angulare.

SOCIETIES.

BRITISH GARDENERS' ASSOCIATION (LONDON BRANCH).

ON Saturday, February 25, a most successful social evening was held at Carr's Restaurant in aid of the Royal Gardeners' Orphan Fund. The chair was occupied by Mr. E. F. Hawes, and there was a company of about 120 members and friends present. The excellent programme of songs and recitations arranged by the concert committee was well received, and the large number of encores demanded showed that the exceptional talent of the artistes was highly appreciated. During the course of the evening Mr. Hawes gave a short address, and for the benefit of those present who were not members he gave a summary of the aims and objects of the association and a brief account of the good work it had already accomplished. The announcement that the membership now well exceeds 2,000 was received with rousing cheers. These encouraging results, continued Mr. Hawes, were the outcome of steady growth, and not the result of spasmodic efforts. A vote of thanks was unanimously accorded to the ladies and gentlemen who had kindly given their services, and the singing of "Auld Lang Syne" and the National Anthem brought a most successful and enjoyable evening to a close.

SOUTH OF SCOTLAND GARDENERS' DINNER.

A PLEASANT function took place in the King's Arms Hotel, Dumfries, on the evening of February 23, this being the first annual dinner of the Southern Counties of Scotland Gardeners. The proposal to hold the dinner emanated from Mr. W. Taylor, Brocklehirst Gardens, who acted as secretary to the committee, and the movement was heartily supported by members of the craft and the nursery and seed trade. A company of about fifty sat down to dinner under the chairmanship of Mr. T. Young of the Crichton Royal Institution Gardens, those present including representatives of the leading nurserymen and seedsmen of Edinburgh, Glasgow, Aberdeen and Dumfries. After dinner the chairman delivered a short address, in which he spoke of the desirability of having such an annual reunion, and said that it had been thought that the dinner might give an opportunity for considering the question of the formation of a gardeners' mutual improvement association for the purpose of holding regular meetings and for the reading of papers. Mr. Young also spoke of the character of present-day gardening as compared with that of past times. A number of toasts were submitted and warmly responded to, and an excellent programme of songs was gone through to the satisfaction of all present. A discussion on the subject of the proposed mutual improvement association was engaged in, and it was ultimately agreed that a meeting should be held on March 4, when a paper by Mr. Hunter, of Messrs. James Service and Sons, should be read. The arrangements were ably carried through by the committee.

CHELMSFORD GARDENERS' ASSOCIATION.

AT the weekly meeting held at the County Laboratories, Chelmsford, on February 24, Mr. A. Ireland, of Messrs. Dobbie and Co., gave an address on vegetables. Mr. Ireland spoke chiefly on the growing of vegetables for exhibition, and described many of the methods of Scotch growers to obtain good specimens for the exhibition table. As the subject was a very large one, full cultural details could not be given for any particular vegetable. Mr. Ireland spoke of the vegetables in their alphabetical order, and noted in each class of plants any improvement which had been made by careful selection and the keeping of the stock true to type which had been done by the seed-growers. Instances where seed and stock selection could be seen to be advantageous were noted, and one special example, that of the Potato, was fully emphasised. Mr. Ireland said all weak plants in a Potato crop should be weeded out, as these gave the largest percentage of seed-sized tubers, which growers usually saved, to their own detriment. For private growers saving their own Potato sets, he would suggest that the best plants be marked when in full growth, and the tubers saved for stock should only be taken from these.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

ON the 22nd ult. the committee of the above association gave an invitation to the parishioners to witness an exhibition of real direct colour photography by Mr. William Marshall of Henley-on-Thames in the Woodclyffe Hall, Wargrave. There was a very full attendance of members and their friends, and altogether about 200 persons were present. The chairman, Mr. T. Tunbridge, F.R.H.S., briefly introduced Mr. Marshall, who gave a short account of his work in this branch of photography and how he had requisitioned the gardens of Friar Park, Park Place, Greenlands, and Wilminster Park to supply the pictures he was going to exhibit. About 160 slides were shown on the specially-prepared screen, including landscapes, flower-beds and borders, fountains, water scenes, Roses on arches and trellises, vases of flowers, Chrysanthemums, Carnations, Geraniums, Sweet Peas, Water Lilies, rock and alpine gardens, and delightful views of woodland and river scenery portraying the beautiful autumn tints. Photographs of several well-known people were also shown in colour. A hearty vote of thanks was proposed to Mr. Marshall at the close by Mr. Tunbridge, and was seconded by the president, H. F. Nicholl, Esq., J.P., on behalf of the members of the association and the audience present, who had had a most entertaining and instructive evening in witnessing the wonders of colour photography. This was carried with acclamation, and Mr. Marshall briefly responded.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

THE hundredth meeting of this association was held on Tuesday, February 21. Mr. J. Evans presided. Owing to the inclement weather there was not a large number present when the chairman called on Mr. A. F. Bailey, The Gardens, Leopold House, Reading, to read his paper on "Rhododendrons." The lecturer's remarks on these hardy evergreen flowering shrubs was listened to with much attention. The raising from seed, grafting, layering, &c., was fully explained. A good discussion was sustained by Messrs. Townsend, Evans, Moyes, Benham, M. Goddard, C. W. Goddard and Chapman. A hearty vote of thanks was passed to Mr. Bailey at the close. Mr. Townsend, Sandhurst Lodge Gardens, staged a pot plant of Chionanthus virginica.

READING GARDENERS' ASSOCIATION.

THE fortnightly meeting of this association was held in the Abbey Hall on Monday, February 20, the president, Mr. Alderman Parfitt, occupying the chair, and again there was a large attendance. The minutes of the last meeting were read and confirmed. The president threw out some useful hints for the benefit of the younger members with regard to self-improvement. On the proposition of the president, it was decided that a resolution of condolence on the death of Mr. Charles Foster be conveyed to Mrs. Foster by the hon. secretary by letter. This was carried in silence. Mr. Dore still being too unwell to give his paper, the hon. secretary had enlisted the sympathies and services of his versatile friend and fellow-member, Mr. T. Tunbridge, and he most kindly came forward with a paper on "Winter and Spring Bedding." Mr. Tunbridge is a thorough master of this subject, and dealt with the matter in hand in his usual lucid and practical manner, his remarks with reference to the raising of plants by seed-sowing and by propagation, the arrangement of harmonies and contrasts in colours, and the naturalisation of plants and bulbs being followed with deep attention. On resuming his seat Mr. Tunbridge was warmly applauded, and in the lengthy discussion which followed the paper he was heard to advantage in replying to the many questions put to him. Mr. H. C. Loader, head-gardener to M. H. F. Sutton, Esq., Erlegh Park, staged a really splendid group of Lachenalia luteola, which was greatly admired, the blooms and growth being of great substance. Several new members were elected.

OBITUARY.

DAVID MURRAY.

IT is with regret that we record the death, on February 28, of Mr. David Murray, formerly gardener to the Marquis of Ailsa, Culzean Castle, Ayrshire. Mr. Murray was for many years one of the best-known of Scottish gardeners, a fact due not only to the importance of the gardens under his care, but also to his ability as a cultivator and as an exhibitor. In the course of a long successful horticultural career Mr. Murray had many victories as an exhibitor of fruit, and quite a number of leading prizes at the Edinburgh and other shows fell to his produce. He was a good all-round gardener, however, and when the gardens at Culzean Castle became greatly changed by the introduction of many new plants, such as tender and other shrubs, Mr. Murray took a warm interest in the novelties, and devoted as much care to these as to his favourite subjects, Vines and Melons. Mr. Murray spent many years in the service of the Ailsa family, and only retired about a year ago. An excellent cultivator and exhibitor, he was also a careful and reliable judge, and all who have been in his company while judging were impressed by his knowledge and acumen in forming his decisions. He was much sought after as a judge at Scottish and other shows, and his decisions were generally accepted as sound and conscientious. Mr. Murray, who was well advanced in years, died at Holmston Road Dairy Farm, Ayr, where he had been residing lately, and his funeral took place on March 3 at Kirkoswald Cemetery.

"Country Life" for March 11 contains, among other articles, an illustrated account of "Tissington Hall, Derbyshire.—I."; "Tale of Country Life: The Bend Farm," by Jessie Leckie Herbertson; "Heads in the Collection of Mr. E. N. Buxton" (illustrated); "The Haunt of the Tawny Owl," by A. J. R. Roberts; "In the Garden: Borders of Annuals" (illustrated), by Gertrude Jekyll; "The Fox."

TRADE NOTE.

"KELWAY'S MANUAL."

WE cannot speak too highly of this excellent publication. It is a horticultural work of reference and a guide to high art in gardening. The illustrations are splendid and the colour reproductions of a high standard. The edition opens with a note specially written by Miss Jekyll, and the arrangement of the work throughout leaves nothing to be desired. The Manual should find a place on either bookshelf or writing-table of all interested in the art of gardening.

GARDENING APPOINTMENT.

MR. A. KETT, late of Faverham Hall Gardens, Norwich, has been appointed head-gardener to F. Penn, Esq., Hardres Court Gardens, Canterbury.

CATALOGUES RECEIVED.

Messrs. John Jefferies and Son, Limited, Royal Nurseries, Cirencester: Seeds.
Messrs. Vilmorin-Andrieux et Cie., 4, Quai de la Mégisserie, Paris: Catalogue Général.
Mr. Hallam, Moseley: Seeds and Plants.
Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath: Begonias and Carnations.
Messrs. Harrison and Sons, Leicester: Garden Seeds.
Mr. J. W. Cross, Old Grammar School, Wisbech: Invincible Seeds and Potatoes.
Messrs. Peter Henderson and Co., 35 and 37, Cortlandt Street, New York: Everything for the Garden.
Mr. A. Lighton, jun., Kirton, near Boston, Lincs: Seed Potatoes and Plants.
Mr. G. S. Evans, Bexley Heath, Kent: Tree and Malmaison Carnations.
Messrs. Frank Dicks and Co., 68, Deansgate, Manchester: Seed List.
The Horticultural Company, The Nurseries, Cheadle Hulme, Cheshire: Guide for the Garden and Greenhouse.
Messrs. Phipps and Ireland, The Bungalow Nursery Barnham, Sussex: Alpines and Hardy Perennials.

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THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor of The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

KEW IN SPRINGTIME.

THOSE who are privileged to visit the Royal Gardens, Kew, at all seasons of the year find an abundance of plants there of more than usual interest; yet if a census of opinion were taken among such visitors as to the most pleasant and interesting season of all, we think spring would be an easy first. There is an indefinable something about this national garden of ours in the early spring months that appeals to all lovers of Nature and to the student of plant-life, and many are the lessons that even the least observant of gardeners may learn.

Doubtless the Mecca of most pilgrims to Kew at this season is the Alpine House, a small, unobtrusive glass structure tucked away at the rear of No. 2 Museum and close by the new water garden. We have on previous occasions referred to this house, and the idea of flowering alpines under glass has received a certain amount of criticism, principally from those who have not seen and enjoyed the many beautiful and rare plants that are annually flowered in this way at Kew. Last week the most interesting plants in the Alpine House were undoubtedly those of the new hardy Primrose, Primula Winteri, one of which is illustrated and described on page 130. These particular plants created quite a sensation when shown at the Royal Horticultural Society's Hall on the 28th ult.; hence the Kew authorities are to be congratulated on securing them, so that visitors to Kew may have an opportunity of seeing them under comfortable conditions. To the everlasting disgrace of at least a section of the British public, it has been found necessary to lock them up securely in a strong iron cage. We understand that thefts of rare plants have recently increased considerably at Kew, a fact that every right-minded plant-lover will, we feel sure, greatly deplore.

Other plants of more than special interest in this house were the Water Lily Tulip (Tulipa kaufmanniana) and its variety aurea, the latter being a gorgeous flower, rich golden yellow inside the petals and brilliant scarlet flames on the exterior; Saxifraga burseriana, a particularly good form of Scilla sibirica alba, Tulipa pulchella (with balloon-shaped ruby red flowers), Bulbocodium vernum, Cyclamen Coum, and last, but not least, the pretty little Grape Hyacinth (Hyacinthus azureus). It is difficult to understand why this is not grown much more extensively in deep pans or shallow pots. It has colour and habit dissimilar to most plants that we find in flower at this season, and is not difficult to grow.

Next in interest to the Alpine House just now comes the rock garden. Although at present it is too early to find many plants in flower, the enthusiast will discover some of more than usual interest. For instance, that little gem of alpines, Soldanella alpina, is shyly thrusting up its frilled, purple flowers from its thin carpet of dark green reniform foliage, and Saxifraga burseriana makes a brave show with its large white blossoms. Other Saxifrages in bloom are the purple-flowered S. oppositifolia, the rich yellow S. sancta, the paler yellow S. apiculata, and S. Elizabethæ. Anemone blanda in its varying shades of blue, Primula denticulata, Narcissus minimus, Lenten Roses, Scillas and Chionodoxas all lend their quota of beauty to the rock garden at this season. On the mound near by, the large-flowered, pale sulphur Narcissus præcox, which, unfortunately, dies out so quickly when naturalised, is already in full flower, keeping the waning Snowdrops and Lenten Roses company, together with Crocuses, Scillas, Chionodoxas, Anemone blanda and other flowers of early spring.

In the Arboretum there are quite a number of beautiful plants to be found. We do not remember ever seeing those early Rhododendrons, præcox, nobleanum and barbatum, better than they are this year, a fact probably accounted for by the absence, so far, of severe spring frosts. R. barbatum is the most beautiful of the trio, its clusters of bright scarlet flowers imparting quite a tropical gaiety to the sombre green foliage of the other Rhododendrons in the famous dell. Near the large Temperate House the graceful, erect trees of the Cornelian Cherry (Cornus Mas) are like mountains of gold, and, close by, the Daphnes of the Mezereum section are saturating the atmosphere with their heavy fragrance. Garrya elliptica, with its shower of pale green catkins, to say nothing of those beautiful hardy Heaths, Erica mediterranea hybrida, E. carnea and its white variety alba, are other plants that ought to be looked for in the Arboretum.

In the glass houses, particularly in No. 4, there are hosts of plants in flower, the best perhaps in the last-named being a

particularly good group of the dainty little Primula malacoides, a plant that is destined to play an important part in the decoration of our conservatories at this season, as well as proving a valuable market plant. So we might go on almost indefinitely describing the many beautiful and rare plants to be found at Kew were sufficient space available. Readers in the London district can go and see for themselves the many floral treasures that Kew guards so closely.

Generally speaking, we think the plants in the Gardens, especially in the houses, are in better condition than they were a few years ago. There are many difficulties, both natural and otherwise, to be overcome in the cultivation of plants at Kew, and, bearing these fully in mind, we think the condition of the Gardens at the present time reflects the greatest credit on those responsible for their upkeep.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 28.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at three o'clock by Mr. R. C. Reginald Nevill on "Alpines in their Native Homes." Wood Green and District Horticultural Society's Meeting.

March 29.—Irish Gardeners' Association and Benevolent Society's Meeting.

March 30.—Torquay Spring Exhibition.

April 1.—Société Française d'Hort de Londres Meeting. Stockton Heath Garden Society's Spring Show. Paisley Florist Society's Spring Show.

The Gardeners' Royal Benevolent Institution.—We learn with great pleasure that the King has forwarded his annual subscription of £5 to the Gardeners' Royal Benevolent Institution. His Majesty was formerly president of the institution.

Wolverhampton Floral Fete. — The schedule of prizes to be competed for at the twenty-third Great Annual Show, Wolverhampton, is now being distributed. The show has been fixed for July 11, 12 and 13, and it will be held in The West Park, by permission of the Mayor and Corporation. Schedules may be had from the secretary, Mr. W. E. Barnett, Snow Hill, Wolverhampton.

"The Carnation Year Book, 1911."—This is the second year-book issued by the Perpetual Flowering Carnation Society, and in many ways it is superior to its predecessor. A portrait of the Right Hon. Lord Howard de Walden, president of the society, makes a capital frontispiece to the annual. Many bright and interesting articles from well-known experts are to be found within its pages. Mr. P. Smith supplies a very chatty contribution on "Novelties *v.* Progress," and Mr. C. Harman Payne writes about "Some Old Carnation Books." Contributions of a practical nature are supplied by Messrs. M. C. Allwood, A. Grubb, F. Fitch and J. Gardner. The Rev. Joseph Jacob has many interesting observations to make under the title "What Do We Exist For?" Our sympathies are with him when he says, "I do hope the points for fragrance in the judging scale will be raised. There it is apprised at one-tenth a flower's total value. It is far too low an estimate of this important factor." Only ten points in a hundred are offered for fragrance under the society's scale of points for judging, while colour, size and habit of plant demand twenty points each. We think that fragrance in the Carnation is at least as important as size, and also think with Mr. Jacob that the scale of points needs careful revision.

A King Edward Memorial Park for Scotland. — At a special meeting of the Lockerbie, N.B., Town Council on the evening of March 7, Provost Byers intimated that Sir Robert Buchanan-Jardine, Bart., of Castlemilk had offered to present to the burgh as a park, and as a memorial of the late King Edward, a field of about five acres at Townehad, and admirably suited for the purposes of a public park. He read Sir Robert's letter, which embodied a few conditions, these being only such as were necessary to prevent the park from being used for other purposes than those to which it was dedicated, and to ensure that it was properly cared for. On the motion of the Provost, seconded by the Senior Bailie, it was unanimously agreed to accept the gift and to return the donor the hearty thanks of the Council on behalf of the community.

Examination of employes in public parks.—The Royal Horticultural Society's sixth examination of employés in public parks was held on January 16, 1911. As previously, the examination was partly *viva voce* and partly written, occupying three hours and twenty minutes. It was held at the society's hall in Vincent Square, Westminster. Sixty-eight candidates entered, and of these sixteen secured places in the first class, thirty-one in the second and fifteen in the third, leaving five candidates who failed to satisfy the minimum requirements of the examiners, and one who was absent. The examiners' report affords a good deal of interesting reading, and from it we take the following extract: "So many gardeners having now successfully passed this parks examination, the secretary of the Royal Horticultural Society recommends to them the higher 'general examination,' which is held annually in April. Do any gardeners regret their successes in the parks employés' examination? Has not the result to themselves, mentally, intellectually and practically, proved fully, and more than fully, 'worth the while'; worth the time and effort devoted to secure a pass, not so much as a step to promotion in wages, but rather for the pleasure and happiness resulting from a better understanding of the subjects of their daily care? Surely the answer cannot be anything but 'Yes'; and, therefore, they are asked not to be contented with the progress which they have thus far achieved, but to press on to higher ability and honours, and to that greater knowledge which success in the 'general examination' implies."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Club-root disease in the Cabbage family.—I was much interested in reading the article on the above subject by Professor Houston in THE GARDEN for March 4. At one time I had to deal with the cultivation of various winter greens in a portion of a large garden where such plants had been cultivated for generations, and in soil annually manured from the home farm. The soil had become sour, and club-root was very prevalent; so I dug in a small quantity of lime and a peck of agricultural salt per square rod of ground every spring, and manure as usual. In two years nearly every plant grown there was free from club-root, and, moreover, grew freely in very dry seasons.—AVON.

Andromeda and its nomenclature.—There is much truth in the statement on page 74 concerning the confusion that exists in the nomenclature of Andromeda. Although something like 181 specific names have been published under Andromeda, only fifteen of them are correctly named, and only one of them appears to be in cultivation, namely, A. polifolia, and two out of eight or nine varieties that existed in gardens about 1844. Most of the other true Andromedas are natives of warm countries, which would explain their absence from cultivation. Just why so many different subjects continue to be grown under the name of Andromeda it would be difficult to say, seeing that the correct generic names were in use when Loudon first published his "Arboretum et Fruticetum Britannicum" in 1838. The species in those days were not in all cases correctly given, but a few alterations would bring them up to the modern standard. For instance, Lyonia arborea of those days is now Oxydendron arboreum, yet it is as frequently seen under the name of Andromeda arborea as any other. Those who know the plants will readily concede that Cassiope tetragona, Cassandra calyculata and Oxydendron are very different-looking plants, and the structure of the flowers is also diverse. The general adoption of the names as published in the Kew hand lists would work a much-needed reform in the nomenclature of all classes of cultivated plants, and serve to standardise the names among all classes of the community, thereby preventing many mistakes and much misunderstanding.—J. F.

Primula pubescens alba. — Pleased as I always am to see illustrations of my old fancy—the Primula illustrated on page 88 of THE GARDEN for February 25—I cannot resist a friendly protest at the name given. This plant, which must have been grown for at least 100 years in gardens, and which forty years ago was plentiful in cottage gardens in this district and in parts of Scotland, has always been grown as P. nivalis, and although another plant has the priority of naming, I think, and feel, that it is too late in the day to muddle amateurs and the trade by altering its name now to pubescens alba, more especially as the true nivalis will never be grown by any but the most enthusiastic amateur in Primulas, and in botanic gardens, as it has no particular attraction. Though once, as I have said, common, it seems to be such no longer, and is rarely seen, except in a few nurseries or in the gardens of enthusiastic collectors. It seems to like a moist, well-drained and rich soil. Severe droughts kill it off wholesale. There are at least five distinct white Auricula-leaved Primulas, and these I possess, viz., P. nivalis, P. helvetica alba, P. decora alba, P. pubescens alba (?), a taller plant than nivalis; and a seedling creamy white raised here.—J. STORMONTH, *Kirkbride, Carlisle.* [According to the Kew authorities, Primula pubescens alba is synonymous with P. nivalis and P. nivea, and the first name is that adopted at Kew.—ED.]

Sowing Sweet Peas in pots.—I saw, a few days since, at Eastcott Gardens, Kingston Hill, many scores of Sweet Peas growing under glass, all raised singly in very small but deep cardboard pots, evidently at the top 2 inches in diameter and fully 1 inch deeper than are ordinary pots of that breadth. These were all stood closely packed together in boxes, and were placed on shelves near the glass in a house of very moderate temperature. Every plant was of equal height and stout and robust, not a seed having failed. Mr. J. Watson, the raiser of Helen Lewis, obtained these useful pots from Mr. R. Sydenham, and they were exceedingly cheap. So little do the pots suffer from moisture that when emptied and dried and

carefully stored they will be quite as useful again next year, and at planting-out-time, the soil being then well filled with roots, the soil ball comes clean away from the pot. Mr. Watson is quite enthusiastic over the good results he has thus obtained so far. Seeing that the subject of sowing Sweet Peas in pots or boxes is a matter for discussion, it is well to make reference to these novel cardboard pots.—A. D.

A pretty floral combination.—Chance directed my attention to what has since proved a most happy combination for a small bed. Plant fairly thickly with any Phlox which sends up deep bronze shoots, and stud the rest of the bed thickly with Pheasant's-eye Narcissus. In April the Phlox is just high enough to act as a background to the Narcissus, which stands well over it, and the contrast between the bronze and the white is very beautiful. A further improvement is made if a few clumps of Snowdrops are inserted to make a show in February. Again, at the end of July we have the gorgeous display of the Phlox in full flower.—P. B. H.

A suggestion for Coronation flowers. Many persons favour the Sweet Pea as the Coronation flower; others prefer the Rose. The date is suitable for both kinds of flowers, and no doubt some magnificent displays of both will be seen throughout the country. With regard to Sweet Peas, all who favour them and have not, as yet, procured seeds, may do so now and sow them at once. Young plants may be purchased and planted out during the month of April. It is not a difficult matter at all to obtain the three colours, red, white and blue, in Sweet Peas; but so far we are without the blue Rose. Red and white Roses may be grown in large numbers, and although the season of planting is rapidly drawing to a close, there is yet time for planting to be done. Rose trees last for many years, and so I put forward a suggestion that owners of gardens should have a special Rose-bed containing only red and white flowering varieties with a groundwork of blue flowers, such as Lobelia and Cornflowers. A bed so planted would remain one of much interest for many years, and there would never be any difficulty in securing the blue groundwork if desired. In addition to the planting of a Rose-bed, I suggest also the planting of some favourite tree or shrub in the numerous gardens throughout the country to commemorate the Coronation event. On the day of the Coronation, red, white and blue flowers might be used in vases in dwelling-houses, and especially in the decoration of luncheon and dinner tables.—G. GARNER.

Carpet-bedding.—I can fully bear out the remarks of your correspondent "H. P." respecting the popularity of carpet-bedding with visitors to our public parks. Twenty-five years ago some very beautiful carpet-bedding was annually carried out in Hesketh Park, Southport, and visitors always wended their way to the beds, the majority much admiring the designs. I made drawings of some of them at the time. Mr. Hathaway, when head-gardener at Lathom House, near Ormskirk, Lancashire, worked some exceedingly pretty designs on beds immediately adjoining the mansion. I believe there were about thirty beds. I had to assist in the preparation of the plants for this special purpose, and I know a little about the immense amount of labour involved. At that time there were some beautiful designs to be seen in various parts of the country, and only true carpet-bedding kinds of plants were used. Odd beds may be treated in this way at the present time in suitable positions; but I do not favour carpet-bedding on a large scale or in every garden. Less formal arrangements are decidedly more restful to the eye and in every way most satisfactory.—AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

EARLY VINES IN POTS.—When the berries are about the size of Peas, thinning may be done. Do not thin the variety Black Hamburgh too liberally, or the bunches will be loose. Commence by removing the small seedless berries first, and if, later on, it can be seen that a few more require to be taken out, remove some of the berries inside the bunches. Foster's Seedling and Madresfield Court require to be much more liberally thinned than Black Hamburgh. The Vines will need very generous treatment now till the bunches approach ripeness. Stimulants must be given more frequently, and in increased strength. Liquid manure and soot-water occasionally are both wholesome and nourishing stimulants for the Vine. These may be supplemented at intervals by a sprinkling of Le Fruitier. When the berries commence to colour, give the surface of the soil a top-dressing of rich farmyard manure. Keep all lateral growth pinched when the trellis is covered with foliage. Air must be admitted carefully till the berries are colouring, or mildew will appear. A minimum temperature of 65° or 70°, according to outside conditions, will be suitable.

Permanent Vines.—Remove the surplus bunches on the early permanent Vines as soon as they are set, leaving the most compact to furnish the crop. Examine the borders, and, should water be needed, give them a thorough soaking with diluted liquid manure in a tepid state. Attend to the disbudding of later Vines as early as possible, and when carrying out this work keep a sharp look-out for mealy bug where this is present.

Muscat Grapes.—The most important item in the cultivation of early Muscat Grapes is the setting of the berries. When in flower the temperature must be kept as equable as possible. There should be ample heating surface in the house, so that the desired temperature may be kept up without having to heat the pipes to excess. If the roots are confined inside the house, it will be a great advantage. The bunches will require artificial pollination. A rabbit's tail may be drawn carefully over them in the middle of the day, and the rods sharply tapped once or twice in the forenoon. All late vineries must be closed now. Examine the borders, and give them a thorough soaking if in need of moisture.

Melons.—The plants which were raised early in the year should be "stopped" when halfway up the trellis. Before commencing to fertilise the flowers, wait till there are three or four open on each plant, or the crop will be uneven and disappointing. Make fresh sowings as required. Ripe fruits may be had in twelve weeks from the date of sowing at this time of year.

Cucumbers.—The early plants are now bearing. They will require plenty of water both at the root and in the atmosphere. Plenty of stimulants must also be given. Place top-dressings of rich material on the roots as soon as they appear.

HARDY FRUIT.

When pruning and training are finished, clean up all prunings and burn them at once. Fork up fruit borders and paths. Old plantations will be benefited by forking into the soil wood-ashes, burnt garden refuse or well-rotted manure. Examine newly-planted fruit trees and see that they do not suffer for want of water, especially wall trees.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWERS UNDER GLASS.

POTTING.—The repotting of stove and greenhouse plants should be proceeded with as soon as opportunities occur. The permanent occupants of these houses will now be starting into growth, a condition in which most plants can be safely repotted, as they soon take hold of the new compost. A good deal of discretion is necessary in determining the size of pots to be used for different subjects, and no hard-and-fast rule can be laid down for guidance. More mistakes are made in over-potting than in confining the roots. Many stove plants, notably Palms, will grow to quite large dimensions in remarkably small pots, the atmospheric condition of the house being of far more importance than either soil or size of pot.

Crotons.—Those intended for table plants later on should now be ready for potting, and 5-inch pots will be found large enough for most purposes. The soil should be of a heavy nature and the potting done firmly. Crotons enjoy a warm, moist atmosphere, and should be shaded from bright sunshine. Dracænas require soil of a lighter nature, and should not be firmly potted. Watering of newly-potted plants should be carefully attended to; indeed, for a considerable time the syringe will provide all the moisture they require.

Begonias.—Tubers may be placed in heat to start. If, when taken from their winter quarters, they are placed in shallow boxes with a little light soil, and allowed to make about 2 inches of growth before potting, a correct idea can then be formed of the size of pots necessary. Begonias require ample pot-room. The compost should be rich and lumpy, and the plants should be potted quite slack, using only the hand for firming the soil in the pots.

Propagating.—Cuttings of various stove plants may be put in. A batch of Crotons put in now will provide plants for late use, and the stools may be kept as stock plants. Old Dracæna stems may be cut into lengths and placed in shallow pans or pots; these will soon push up growth, and if grown in a brisk heat will make useful plants for decoration. Cuttings of Nepenthes are slow to root; but if placed in a warm, close propagating-frame, no difficulty need be experienced. Peat should form the bulk of the compost, both for cuttings and established plants. One very successful method of propagating we have practised is to pass the cutting through the small hole of an inverted flower-pot until the base of the cutting almost touches the plunging material. Treated thus, they seem to emit roots much quicker than in the ordinary way, and can then be potted up. A free use of the syringe is necessary to promote good growth and development of pitchers, and as a check to thrip and red spider.

Bouvardias.—These are best when grown annually from cuttings taken when the growths are from 2 inches to 3 inches long. Root cuttings are also produced freely if the old plants are shaken out and the larger roots laid in pieces on the surface of pots or boxes, with a slight covering of sandy soil.

Annuals.—Continue to prick out seedlings of half-hardy annuals as they get large enough to handle. Another sowing may now be made which might include Asters, Ten-week Stocks, Larkspurs, Marigolds, Nemesia, Nicotiana, Salpiglossis and Salvias. Cuttings of Alyssum, Ageratum, Iresine, Lobelia, Mesembryanthemum and Petunia may also be put in.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FLOWER GARDEN.

THE FASCINATION OF THE ANEMONE.

(*Continued from page* 117.)

BEFORE I leave the white-flowered forms I must apologise to one of the most delicately beautiful of all for having passed it over in its right place among the singles. This is Vestal. I do not know its origin, but it was distributed by that great benefactor of lovers of choice plants, Herr Max Leichtlin. It is a small and dwarf form, but what it lacks in size it makes up in the singular purity of its flowers. Both sepals and anthers are white, and produce a silvery effect that is very dainty.

I have never yet seen, but should greatly like to, the American form of A. nemorosa (A. quinquefolia of Linnæus). From the charming figure of it in Meehan's "Native Flowers and Ferns of the United States," it appears sufficiently distinct to be worthy of a place in our gardens. Its chief characteristics are a slender habit and five rounded sepals. It is widely spread in the United States and Canada, so I hope it may soon come to England. I should also like to know more than the bare names of the Spanish variety hirsuta Pritz., from Pena Gorveya in the Cantabrian Mountains, var. bosniaca and var. altaica Fisch., which last is said to have eight to twelve sepals.

Now it is time we noticed the blue forms, some of which are as lovely as any spring flower, and that is high praise indeed. Let us commence with the form that is found in Wales and fairly plentifully in certain districts with a slate formation. Some have little more than a bluish shade in the inner surface, while others can be found that well deserve the name they bear in gardens and nurserymen's lists of A. nemorosa var. cærulea. I have two forms, both given me by that great gardener Mr. Wolley-Dod, who told me they were from slate districts. The paler form is always earlier in flower, coming at the same time as the wild white ones. Next in season appears one of my greatest favourites, A. nemorosa var. purpurea. There is a warmth and richness of colour about it that astonishes and delights me afresh each spring. The unopened buds are rosy purple from their first appearance above ground, and so, though not to be compared with the clear blue of their open flowers on sunny days, the closed blossoms of dull and wet times have a beauty of their own. It is a vigorous grower, and seems quite at home here in sun or shade. I believe it has been found wild more than once in the neighbourhood of Pau, and was largely distributed by Herr Leichtlin.

Mr. Allen, of Snowdrop fame, interested himself in these blue Wood Anemones and raised some seedlings, and I should fancy Blue Queen, the brightest blue of any form I have yet seen, must have descended from this purpurea variety. It is about the same in form and size and an early-flowering one, but has lost some of the rosy shade and gained in blueness. As it is nearly a year since I rejoiced in its beauty, I may be wrong, but I think I should use cobalt and not ultramarine to paint it.

Another seedling with a great family resemblance is Celestial, but it is not of so deep a blue as the last and, I think, a little later to flower here.

Then there is another group, of which the lovely pale lilac Robinsoniana may be taken as the head of the clan. These are taller plants and later in flowering; their sepals possess greater substance and have a form that is rather characteristic. Though I have it in my mind's eye, I find it hard to get it thence to my pen's point, for as I write they are still below the surface of the ground, and yet when this appears in print they should be coming into flower and ready to witness against me if I do not tell the exact truth. I think I remember that the outer sepals of the buds have wider bases than is seen in the common white nemorosa, and this gives the buds a more triangular outline; also I seem to recall an enlargement of the stems, both of the leaflets and of the scape itself, where these join, that is not so well marked in the nemorosa forms. I must here register a vow not to write of plants from memory in this way again, mental arithmetic being a pleasant recreation compared with it. Anyway, the delightful soft shade of mauve of its large flowers is so distinct that it stands out as one of the delights of the year, especially on the first day or two that it opens out in the sunshine. It has one fault in my eyes—that the flowers close in a rather short-tempered, impatient way towards evening and in cloudy weather, and most distinctly have a wrong side, a cotton back one might almost say, for the outside is of a dull greyish tint only deep enough to be a spoilt white. I hoped great things, therefore, of the form known as cornubiensis, which was described as rosy red on the outside. So far I have not learnt to love it so well as the typical Robinsoniana, as, in spite of its blushing back view, its full face is not so beautiful. There are many accounts given as to the origin of Robinsoniana, but Mr. Robinson tells me that the true one is that given by Mr. Burbidge in a very interesting note on blue Wood Anemones in THE GARDEN for April 14, 1900, and that he first saw it at the foot of a wall in the Oxford Botanic Garden, and Baxter, who was then curator, said he received it from a lady in Ireland.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

(*To be continued.*)



IRIS WILLMOTTIANA IN THE BOTANIC GARDENS AT GLASNEVIN.



ANEMONE NEMOROSA PURPUREA.

A RARE IRIS AT GLASNEVIN.

IRIS WILLMOTTIANA was introduced by Van Tubergen a few years ago from the mountains of Eastern Turkestan. It is one of the dwarf Junos and flowers in April. In habit it is similar to I. caucasica, with a glistening green blade and white horny margin to the leaf. The flowers are sessile in the axils of the leaves, from three to seven flowers being borne on each stem according, to its strength. The top flower opens first and the others successionally downwards. The flowers are soft lavender blue, with blotches of white on the fall, but it is said to vary a good deal in the colour. It is proving a free and easy grower at Glasnevin, and when in flower is an attractive plant. It thrives in ordinary garden soil, but likes a fair depth, for from the base of the bulbs thick fleshy roots are pushed straight down into the soil. When transplanting or separating a clump of it, care should be taken not to break these fleshy roots; otherwise it takes time to recover from the transplanting.

Glasnevin. C. F. BALL.

SWEET PEA CHAT.

The Late Charles Foster.—May I be permitted to add a tribute to the memory of this splendid man? It was not my privilege to come into close personal contact with him at frequent intervals, but I saw and knew sufficient about him to prove to me that he was a man among men. Born in Lincolnshire, he early commenced work, and until within a few months of his untimely end he never ceased his labours in gardening. Sweet Pea-lovers have to thank him for his excellent and untiring work with the trials of varieties conducted for the National Sweet Pea Society, resulting in glory to that body and credit to himself. It is consolation—poor perhaps, but better than none—to learn that he has a son to follow in his footsteps. I can wish him nothing more complimentary than that he shall be a better man than his father was before him.

One Thousand Pounds.—Sweet Pea-growers are noted for their partiality for confabulations, in which details of the most supreme insignificance are discussed as though they were affairs of State, and at such a gathering I overheard a discussion as to the safest investment in which to place the £1,000 prize. This was counting the profits before they were in the bank with vengeance; and in the real interests of such rash individuals I have decided to annex the prize myself, and perhaps I shall hand over the cash to the National Sweet Pea Society or some deserving charity. One of my readers would bet it if I did not, and it might lead to ruin instead of to affluence; hence my thoughtfulness in the matter.

Peace, Perfect Peace.—So the militant element of the committee of the National Sweet Pea Society has called a truce, and the policy of obstruction has been dropped. Well, I am glad to know it, because it will give an opportunity for useful business to be done in that prompt and admirable manner for which the society has become almost famous. From information received, as the police would say, I learn that the leader of the ever-right men was as conciliatory as he had been previously denunciatory, and that the younger had thrown up his brief and could not be induced to say a word until an outsider suggested that the old floral committee should be invited to remain in office for the season, when he immediately gave his support to the movement, which was carried. This is good news; but let us hope that the committee will not fall over itself in its anxiety not to make any mistakes either at Sutton Green or in London. Fortunately, the men composing it are not "nervy," for if they were there is no knowing what might happen.

Seed-sowing.—Within the coming fourteen days or so the last few millions of seeds will be sown for the next exhibition season. It is hoped that the weather will be propitious, and that the mice will not eat all the expensive varieties and leave the others for the slugs and the birds. One or two inquiries have reached me as to whether the red lead that is advised for coating the seeds before sowing to keep away the mice will cause any injury. There is not the slightest danger of this, and the covering should always be a thick one to be perfectly effectual. It is surely not necessary to reiterate the advice to sow thinly on a firm, open base, or to leave the light-coloured and wrinkled, spotted seeds nearly on the surface?

The Slug.—I have heard Mr. Horace J. Wright when lecturing on Sweet Peas refer to slugs as friends of the amateur, but the statement was received with derision. His idea is that the growers will not thin out as widely as they ought to do, and that the slugs, which do a fair amount of thinning, are therefore beneficial. It is a queer argument, with an element of truth in it. I, however, venture to suggest that the slugs should be discouraged by meting out sudden death to them, and that the cultivator should rely upon himself for the correct thinning of the plants.

A. B. Essex.

A NEW HARDY PRIMROSE.

(Primula Winteri.)

As described in our last issue, Primula Winteri is a new and fascinating species from the Himalayas, where it has been discovered at an altitude of 12,000 feet and upwards, not far removed from the limits of the eternal snows. Needless to say, it is quite hardy. As a subject for the rock garden it is, so far, the greatest acquisition of the year, and as it is said to seed freely, it will soon become quite a favourite among the growers of rock and alpine plants. Seeds of this Primula were collected by a Mr. Winter, after whom it was named. The seeds were sent to Messrs. R. Gill and Son, Penryn, near Falmouth, where the plants grew successfully in the open without protection. As may be seen from the illustration on page 130, the new-comer somewhat resembles the common Primrose in habit. It is as profusely flowered as the Primrose and, individually, the flowers are about the same size. The flowers of Winteri vary from pale to deep mauve. The foliage is attractive owing to its covering of farina—a whitish and mealy substance which is common on the foliage and flower-stems of many other Primulas. When shown before the Royal Horticultural Society at a recent meeting it received the high award of a first-class certificate, an honour that all who saw this Primrose agreed was fully deserved



TEA ROSE LADY ROBERTS.

THE ROSE GARDEN.

ROSE LADY ROBERTS

THIS Rose is deservedly popular, and it is quite worthy of any praise one can bestow upon it. Although it has been introduced some nine years, the demand for it is as extensive as ever; indeed, until the advent of Lady Hillingdon it was our best deep apricot forcing Rose. Even now I am not sure that it is not superior in many points to Lady Hillingdon, because it possesses such an excellent habit of growth, producing its flowers upon good erect stems, almost resembling the Hybrid Teas in this respect.

It is generally known that Lady Roberts is a sport from Anna Olivier, and this fact is patent to all who grow the Rose, for at certain seasons of the year it yields blooms very nearly identical with Anna Olivier. Atmospheric conditions largely affect the colouring of Rose Lady Roberts, so that the blooms produced in early summer and in autumn are richest in their apricot shading. With me, so close am I to the sea, Lady Roberts maintains that glorious rich colour we love so much almost the whole of the season, and I find that other Roses of the apricot shades appear to heighten much in colour by the action of the sea air. As a standard plant in a pot it is a great success, especially in a cool house, and the huge petals produced under cool conditions are very remarkable. As was to be expected, Mr. Felton, the Court florist, in his article upon "Roses and their Decorative Value" in the "Rose Annual" just issued by the National Rose Society, places Lady Roberts among the exceptionally good Roses for decorative purposes, ignoring Lady Hillingdon, probably because of its quite recent introduction, and thus not really largely grown except by its introducers. All who grow a few indoor Roses, either in heated or cool houses, should have some of Lady Roberts, and if they wish to cover a 7-feet to 8-feet high south wall with a good golden apricot Rose, either under glass or outdoors, they could not plant a better Rose. The more it is spread out, the more satisfactory is its growth. Lady Roberts has obtained the proud and unique distinction of receiving two gold medals, and its introducers, Messrs. F. Cant and Co., are justly proud of their introduction.

P.

LATE PLANTING OF ROSES.

Although everything points to an early spring, Roses may yet be planted with every chance of success, providing a few apparently small details be observed. In the first place, one should endeavour to plant upon land that has been well worked; that is, where the soil has been dug over some few weeks, or, better still, where it has been trenched. Such soil, being more capable of absorbing air, is naturally of a warmer character than that freshly dug, and when the soil is warm, root-action takes place much more readily. Many growers have their supplies of Roses "heeled in," and the plants are kept moved, so that new growth is retarded. Such plants are far more likely to succeed than those dug up from the Rose quarters now

Last season the writer planted a quantity of Caroline Testout as late as April 29, and they were a perfect success, flowering grandly in autumn. The plants were cut back to within 2 inches or 3 inches from where they were budded before planting, and as they were somewhat dry at the

roots upon arrival, they were thrown into a pond, and remained there a few hours prior to planting. Another essential to successful late planting is to go over the plants about a week after planting and make the soil very firm about the roots, treading all round each plant, and then, about two weeks later, giving each plant a good watering. Before doing this I advise covering the soil with some well-decayed manure, which acts as a mulch, prevents the soil from capping, and also prevents a too rapid evaporation. Of course, when we get into the month of May, pot plants must be resorted to. These are not only expensive, but rarely satisfactory, so that if the work can be forestalled a little, there is no need to resort to pot plants.

Roses recently planted are best cut back hard at once; indeed, I always advise this being done at the time of planting or immediately afterwards, as the roots are then spared the necessity of supporting useless growths, and their activity is concentrated upon the eyes at the base of the plants, which always give the best results. Even Rambler Roses I would prune back hard when planted in late spring, cutting them back to within 4 inches or 5 inches of the base. P.

ROSE PENELOPE IN AUSTRALIA.

I NOTICE in your issue of November 12, 1910, that your contributor "P." mentions Penelope as one of the newer Roses exhibitors should look after. I may say it has proved a big success in this country. It was sent out in 1906. In August, 1907, an exhibit of Roses was sent to Townsville, eighty-four miles (quite a long journey for Roses in our climate), and a Penelope among the exhibit won the first prize for the best new Rose and the champion Rose of the show. Last year at the above society's show, held in August, it won a gold medal for the best specimen bloom, and also as the champion Rose of the show, the trophy being a silver cup.

Mr. Williams, when he sent out Penelope, gave its parents as White Maman Cochet and Mme Lambard; but I think, with others, that one of the parents was Souvenir de Thérése Levet. Penelope had such a large sale that it suffered from overdue propagation, and most of the trees sent out refused to grow under any treatment, although there were a few very fine bushes grown here in 1907. It has recovered somewhat now, and one tree on Charters Towers is over 10 feet high and seems to have sported into a climber; it is trained on a verandah. Mr. Williams sent out another good Rose in 1909, a Hybrid Tea, and called it Star of Queensland. It is the result of crossing Etoile de France with Earl of Dufferin. Its colour is very rich velvety crimson, shaded maroon, and it is an improvement on Etoile de France. The blooms open much freer, and should do well in your cooler climate. I have a bush in my garden at the time of writing (January 4) with thirty-seven blooms on it, and it is only twelve months old. It is a splendid grower and a good addition to the red Hybrid Tea Roses. We value THE GARDEN very much here, and it is passed round our members weekly. CHARLES E. PARKINSON.

Charters Towers, Queensland.



A NEW HARDY PRIMROSE FROM THE HIMALAYAS (PRIMULA WINTERI). (*See page* 129.)

COLOURED PLATE.

PLATE 1421.

SINGLE PYRETHRUMS.

SINGLE Pyrethrums are among the very best of hardy plants that grace our flower-borders during the summer and early autumn months. They are time-honoured favourites, invaluable for colour effect and almost unrivalled as cut flowers. Moreover, they are perfectly hardy, and so easy to grow that they deserve a place in every border of hardy flowers; indeed, no garden is complete without them. Pyrethrums are by no means fastidious in regard to soil; but one that has been deeply dug and enriched with farmyard manure is found to best suit their requirements. However, ordinary garden soil, providing it has been well dug over, is suitable for these accommodating flowers. In the springtime, when growth appears, it is liable to injury by that much-dreaded visitor the slug. It is quite a good plan to protect the crowns from this pest by covering them with a fair sprinkling of coal-ashes. This should, of course, be done before the growth commences, and it will be found a simple and efficient means of keeping slugs at bay. Pyrethrums may be planted now to flower in the ensuing summer. As stated, there is nothing difficult in their cultivation; but, at the same time, they must not be allowed to suffer for the want of a little attention. It will be found necessary in the summer months to give them copious supplies of water. This is especially needful in a dry summer when the flower-buds are being pushed up in rapid succession. Our coloured plate depicts four excellent varieties, viz., James Kelway, intense crimson; Goring Thomas, rosy pink; Firefly, crimson; and Snow White. The flowers shown are reduced considerin size, and represent some of the newer types. We owe a debt of gratitude to Messrs. Kelway and Son for many new and improved varieties that they have brought to light, including those shown in the coloured plate.

THE GREENHOUSE.

AN INTERESTING AUSTRALIAN PLANT.

(OLEARIA RAMULOSA.)

THE illustration on page 131 brings to mind a delightful species of Olearia, which, unfortunately, is by no means an easy plant to cultivate. Olearia ramulosa is an Australian plant of shrubby growth, and it is a matter for regret that our dull and sunless winters too often prove fatal to its existence. It is a short-lived species, having an unhappy way of falling into a decline after it has passed the stage of a 3-inch pot. Like most Australian shrubby plants, it requires cool greenhouse treatment, with an abundance of light and air through the summer months. Over-watering is as fatal an evil as negligence, and too much care cannot be given to the use of the watering-pot. Although difficult to cultivate, it is certainly well worth growing, and it is a particularly interesting plant to those good cultivators who take a delight in overcoming difficulties. When in flower this Olearia is of fascinating beauty; it produces a shower of small white, star-like flowers in wonderful profusion.

ORCHIDS FOR A COOL HOUSE.

MANY amateurs possess a greenhouse where they can maintain a minimum temperature of 50° Fahr. during the winter months, and some attempt to grow a few Orchids, but often, through not knowing just what to choose, get together a collection quite unsuitable for their house. It is best to confine such a house to what are popularly known as cool Orchids, of which the chaste Odontoglossum crispum could form the bulk, and in time, with judicious selection, a group of good average varieties could be brought together. Spikes of O. crispum are always acceptable, either when left on the plant, providing it has plenty of live roots, or in a cut state, when they may be used for button-holes or the drawing-room, while a few sprays arranged in a bouquet places it in the select circle at once. Another point in favour of this beautiful Orchid is that the flowering season is a prolonged one where fifty or sixty specimens are included, and scarcely two plants produce blooms exactly alike. Other desirable species are O. triumphans, O. cirrhosum, O. Edwardii and O. luteo-purpureum; and the showy hybrids embrace O. ardentissimum, O. Rolfeæ, O. Vuylstekei, O. percultum, O. Ossultonii and a host of others.

Another charming group which are eagerly sought after by Orchid-lovers are the Odontiodas, and they are now fairly numerous. Some of the best include such gems as O. Bradshawiæ, O. heatonensis, O. Lutetia, O. Charlesworthii and O. Vuylstekeæ. They are bigeneric hybrids between Odontoglossums and the orange scarlet Cochlioda noetzliana, the progeny partaking of the shape of the former and, to a great extent, the colour of the latter. A few Cypripediums should be included, such as the various forms of C. insigne; and at the coldest end of the house, just beneath a ventilator, a little collection of Disas would be at home. D. grandiflora, D. Luna, D. Veitchii and D. racemosa are the four principal ones. The Masdevallias constitute an interesting section, although they are not so showy as the Odontoglossums, and if it is decided to add a few, the warmest end of the structure must be afforded them. The white M. tovarensis always proves a favourite, and the bright orange Epidendrum vitellinum forms a pleasing contrast. By the side of the Masdevallias, Lycaste Skinneri would thrive, also Cymbidium lowianum and C. traceyanum, which remain in full perfection for several weeks, but in the interest of the plant the spikes ought to be removed directly the bottom flower begins to fade.

Of the many Oncidiums I recommend O. superbiens, O. macranthum, O. varicosum and O. concolor. The latter, on account of its drooping scapes, may be cultivated suspended from the roof, while the same remarks apply to the sweet-scented Cattleya citrina and the Chimæra group of Masdevallia. Many more could be added, but sufficient has been written to show what a wealth of material there is to choose from, even for the beginner.

A Few Cultural Remarks.

During the summer months shade is necessary to protect the inmates from all strong sunlight, and a moist, buoyant atmosphere is essential if we are to secure strong, firm pseudo-bulbs and clean, healthy foliage. Cleanliness is a very important factor to observe; but the enthusiastic grower must not be always sponging his plants, particularly the Odontoglossums, or many split leaves will be the result. When the weather is hot and dry, a gentle, fine spray overhead is beneficial, but it must be done sufficiently early to allow the foliage to dry before sunset. Give ample ventilation, except in rough weather, and where the house is a span-roofed one it is advisable to open the ventilators on the leeward side, and thus prevent any cold air passing over the plants. When the outside temperature is above 45° Fahr., the ventilators may be left open an inch or so throughout the night. In the winter months no shade is needed, but if the blinds are left on they can be unrolled at night and so economise fire-heat. Slugs are often troublesome, and to save the Odontoglossum spikes from these marauders a band of cotton-wool should be placed around the bulb, while a special variety could be set on a pan, which is placed in a saucer filled with water.

Sentinel.

THE FRUIT GARDEN.

THE CULTIVATION OF MELONS IN FRAMES.

To advocate the culture of Melons on a hot-bed, with only hand-glasses at the start, much the same as Marrows, would, I fear, make Northern readers smile and think my note savoured of mere ideas and was not practical at all. I will not go so far as to suggest that there are hardy Melons—the term may be misleading; but all old practitioners know that the Melon can be grown to perfection in frames merely set on hot manure with ample linings, and this applies to all Melons, though some are more suitable than others—those that make a close growth and are early setters. The past two seasons for frame Melons have been as bad as I ever remember, as, though September was fine, I fear it was almost too late to repair damages; by this I mean bad setting and the danger frame plants are prone to; that is, what is termed damping off at the collar in wet, sunless weather. This latter indicates the importance of an open, sunny position, the beds well raised and growing the plants thinly.

Several years ago I fruited a popular variety in those days, and one still in existence, called Munro's Little Heath; but this was in the South of England. The plants were grown in two ways—some were planted on a warm bed early in June and merely covered with spare sashes, and the others were planted in cold frames without heat of any kind in the way of manures, and in suitable summers we had fair results. A strong plant was always inserted, and the first fruits that showed were secured. We stopped rather closely; by this I mean there was no crowding or weak wood to check the fruits. The variety named was excellent for the work. But my readers may remark, You cannot call this hardy by any means! and I do not. At the same time, the protection given was slight and the return good in a favourable season.

Since the advent of Munro's Little Heath I do not see that our summers have improved, and I certainly do not advise growing the Melon without protection. Recently I have tried Carter's Hardy Frame Melon, and this appears to me to be a decided gain on the older Little Heath; it is a distinct, medium-sized fruit, round, much netted, with rich scarlet flesh for a Melon grown without heat. The growth of the plant indicates its hardiness, as its sturdiness of growth makes it a decided acquisition for the purpose named, and, given a suitable position, this variety fruits very freely with merely glass protection. To obtain fruit in August, I would advise sowing in April, and the getting of strong plants for the purpose. After they are planted out, cover the glass at night for a time to keep an even temperature. The plant also does well in a cold greenhouse if grown in pots or in boxes from June to September. W. B. H.



A GRACEFUL AUSTRALIAN GREENHOUSE PLANT: OLEARIA RAMULOSA.

(*See page* 130.)

TREES & SHRUBS

SHRUBS FOR AMATEURS.

Many who spend the day in great cities find much enjoyment and recreation in their gardens, and they vie with each other in friendly rivalry. It is a grand sight to see many of the small lawns in early spring and summer. Yet there are many very pretty and inexpensive plants which deserve a place. Seldom do we see the Erica or Heath section; these are so pretty and so easy of cultivation that one stops to enquire why they are not more freely planted. They look well around the edge of the shrubbery or as dot plants in the rockery.

The earliest to flower is Erica carnea. This variety is very hardy, and the typical species, whose flowers are pink and flesh-coloured, are often in flower in the coldest months—December, January and February. They are very neat and compact, growing only from 6 inches to 9 inches high. To make a nice bold show it is best to plant in clusters of from three to nine plants, according to the space afforded. Any good soil will suit their requirements except that which contains manure. Decomposed leaves are good for these plants, but they need to be planted very firmly; in fact, the soil cannot be too hard for them.

For a good evergreen background I should certainly recommend a hardy Bamboo, such

as Arundinaria japonica, sometimes known as Métake. This is a very valuable plant as an evergreen, and one that will do well anywhere and in any soil. When well established it will grow from 10 feet to 15 feet, but if this is too high it can always be reduced. When blown about by the wind it has a most delightful effect when revealing the glaucous foliage on the under side. These plants when growing are immensely improved by a mulching of cow-manure or bone-meal. The variety of the Bamboo, Phyllostachys nigra, or the black species, is exceedingly handsome, and if treated similarly to the foregoing will make an excellent feature. This plant is beautiful in all stages, so it is well to get a good plant to start. These plants should be well watered and syringed after planting, and they should be planted on a wet day at the end of March and all through April. Berberis Darwinii is one of the best and prettiest, with small shining foliage and myriads of orange flowers in April. This shrub needs a little pruning after flowering to keep it in bounds. B. stenophylla is another beautiful variety, very ornamental and of particularly easy culture. B. Thunbergii is the most brilliant of all shrubs in the autumn. It thrives everywhere; its leaves turn a brilliant scarlet in the autumn. Cerasus or Flowering Cherries are among the most gorgeous of all flowers when in bloom. Pseudo-cerasus J. H. Veitch is very fine and one of the best. These are very nice as standards and in bush form. If tits are troublesome in the winter, put some black cotton about among the branches; this will effectually scare them. Prunus triloba is very fine, and should be dealt with in the same manner.

Ceanothuses are beautiful objects on walls or fences. C. azureus Gloire des Plantiers and C. veitchiana are beautiful varieties of different blues. Clethra alnifolia (Pepper Tree) is a neat shrubby plant 3 feet to 6 feet in height, and bears large quantities of creamy white upright spikes of flowers for several months during the end of the summer.

Corokia Cotoneaster, a New Zealand curiosity, is always attractive owing to the zigzag arrangement of the branches, and the small, minute leaves are white on the under side. The flowers are small, yellow, star-shaped and produced in profusion. It is good as a dot plant on a rockery or on a border, and is not at all particular as to soil. Cytisus præcox is a handsome plant when in flower. C. andreanum, a distinct and beautiful variety, flowers golden and velvety purple, should be grown by everybody who has a garden. Daphne japonica, a very sweet-scented shrub, has the most deliciously scented of all flowers. Forsythia suspensa, the most charming of wall plants, colour a most lovely yellow, and like small golden bells hanging down, should be pruned back immediately after flowering, and the young growths all left for flowering the next season, as this plant produces its flowers on the last season's growth. When these are 18 inches to 2 feet long they are most effective, and also useful for cutting purposes. It is the best type, the freest and easiest to grow. Grevellia rosmarinifolia has beautiful evergreen foliage and bright red flowers in winter and early spring. Kerria japonica, a very old-fashioned but pretty shrub, is often seen climbing over rustic cottages; quite one of the best flowering shrubs. There is also a single form, which is very pretty. Laburnums are well known, but there is a variety (L. Vossii) which has immense trusses of rich pale yellow chains 18 inches to 24 inches long. Laburnums are certainly among the most handsome of all flowering trees and shrubs.

Leonardslee. W. A. COOK.

THE TOWN GARDEN.

DWARF BEDDING ASTERS.—There is such a wealth of beauty and variety collectively in the China Aster of to-day that no apology will be needed, I imagine, for directing the attention of my readers to these valuable subjects a second time within the space of a few weeks. Moreover, the subject is one of the most seasonable at the moment, since there is no better time than the month of March for making sowings of the seeds. As I have already given some instructions for seed-sowing and general treatment, I will not repeat these in detail, though a word of warning in one or two directions may not be out of place. Many fail to succeed with the best of Aster seed through sowing it much too deeply, the slightest covering of the finest soil being sufficient. Others, again, appear to court failure from the outset by adopting a rule-of-thumb method for sowing the seeds, selecting a certain day because some successful grower of their acquaintance did the same thing.

CIRCUMSTANCES ALTER CASES.—The selection of a given date is, however, but a solitary item in a lengthy programme, as it were, and dryness or wetness of the soil are items of infinitely greater importance. Good seeds of these Asters respond quickly to the right conditions of moisture and warmth, and there is nothing to be gained and very much to be lost, or at least hazarded, by sowing the seeds in over-moist soils, or sowing them much too early. The last is frequently but the forerunner of worse evils, for, should the seedlings be in advance of their time and come to a standstill at a later date because their intended place is pre-occupied, a stunted plant and a poor flowering will ensue. The seedling plants require to be kept steadily growing from the start, and abundance of room for development is an absolute necessity.



A DWARF POT ASTER SUITABLE FOR A COOL GREENHOUSE.

A GOOD TYPE OF ASTER for bedding purposes and, incidentally, for potting is that shown in the accompanying illustration. The large number of fully-developed flowers is the best evidence of unqualified success, though it is not difficult of attainment if a few simple rules are followed. Where the plants are not required for beds alone, they make excellent groups in the border, and are valuable as a sort of stop-gap in case of need. By planting a nice assortment in a reserve plot of ground where the soil has been well cultivated, the plants may be lifted and potted as shown in the picture. Such plants require a space of 1 foot to grow in, and give but little trouble to the cultivator. The Dwarf Victoria, Dwarf Pæony-flowered, Dwarf Bouquet and Dwarf Bedding are all good for the purpose we have in mind.

A HINT ABOUT ROSES.—All freshly-planted Roses should be looked over occasionally to ascertain if the plants are quite firm in their respective positions. Frequently on wet and heavy soil, and generally after much rain and wind, it will be found that the plants by rocking to and fro have formed sockets like holes about their stems. These holes are not infrequently water-tight, and, should a severe frost occur, much damage might be wrought among the more tender sorts. By forking the soil about the plants sufficiently deep, the water will pass away, and a little later the soil may be made firm again. In wet soils the incorporating of a little dry soil, ashes, or Cocoanut fibre with the staple will often prevent a recurrence of the trouble.

ROSE-PRUNING.—This may be taken in hand at any time now, beginning with the earliest varieties. There is no great need for absolute pruning for a day or two, and in those localities which suffer from late spring frosts the growths should be first shortened back, and subsequently pruned back to the third or fourth eye. Those newly planted should be pruned last, though it is often advisable to shorten the strongest shoots to half their length at planting-time to prevent the plants being swayed by the wind. Climbing varieties on walls and such early-flowering sorts as Gloire de Dijon may be pruned at once. S. N. N.

GARDENING FOR BEGINNERS.

HOW TO PLANT POTATOES.

TO the renowned Sir Walter Raleigh we in the United Kingdom are indebted for the introduction of the Potato, so early as the year 1584 arrangements being made for a supply of the much-appreciated tubers. It is only within the past century, however, that the development of this subject has been so noteworthy. Great improvements have taken place in more recent years, and a very large number of useful and high-quality varieties are now brought within the reach of all cultivators.

Potatoes are not fastidious as to the soil in which they will grow satisfactorily. As a matter of fact, they will grow in almost any soil. The least satisfactory soil is that of a clayey nature, and even this, with a little care, may be rendered suitable after a while. If the quarters are not yet dug over, this should be seen to at once, as the period for planting will soon be upon us, and it is a great advantage to have the soil sweet and friable when the planting is done. In the case of heavy soils, work in a good dressing of road grit (not that from a macadam road) and burnt garden refuse. In almost every garden there is usually an accumulation of old potting soil, wood-ashes and decayed vegetable refuse. If to the foregoing there is added a free sprinkling of lime at this period, and these ingredients are worked into heavy garden soils, the latter will be vastly improved and the grower's prospects of success made brighter thereby.

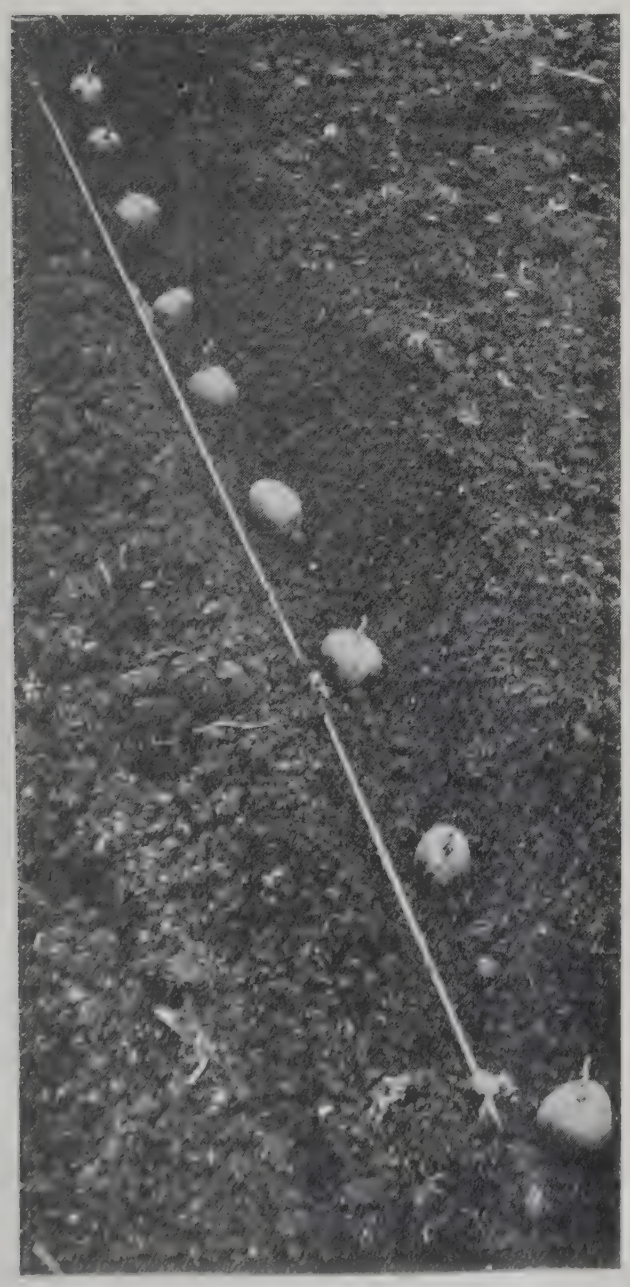
In the use of manures it is better to apply horse-manure to heavy soils, and for soils of a light nature incorporate a good dressing of cow or pig manure. Some growers have a preference for peat-moss litter, good results following the use of this material on some of the lighter soils. Well-decayed manure is generally preferred, and one heavy load to ten rods is an efficient dressing.

Assuming the quarters have been prepared, the grower need only concern himself in the preparation of the sets. No time should be lost in this matter, as it is a distinct gain to have the seed tubers, or sets, nicely sprouted by the time it is necessary to commence planting. All too frequently the seed tubers are taken from a heap or from a sack that has been stored in a damp cellar. When this is the case, the "eyes" of the tubers have emitted fairly long white growths that are weak and useless. It is far better to anticipate the planting period by making adequate preparations for sprouting the seed tubers. It is an easy matter to acquire or make a number of shallow wooden boxes, and to arrange the seed Potatoes in these so that their crown is uppermost. A good weight for seed tubers is from 3oz. to 4oz. each. Place the boxes of sets in any light shed or room from which frost can be excluded, and growths will develop at the crown of the tubers in a comparatively short time. In a week or two stand the boxes in a cool greenhouse or cold frame to keep the growths steady, and when the time for planting arrives the sets should be in excellent condition. Do not allow more than two or three shoots to develop on each Potato. All others should be removed quite early. In Fig. 1 a small box of sets of King Edward VII. Potato that are commencing to sprout quite satisfactorily is shown. Note how they are packed close together and are stood on end. A tuber of moderate size is generally regarded with more favour than a smaller or larger one, the smaller tuber not seldom making a comparatively weak growth and a poor yield in consequence. To use unnecessarily large sets is a great waste of material. Some growers successfully practise the cutting up of tubers into several smaller portions, retaining an eye in each portion. Plant in rows, using a garden line so that the rows may be even and straight. For the early sorts observe a distance between the rows of from 15 inches to 20 inches. The distance between the rows is generally governed by the height of the haulm, and as most of the later and maincrop varieties are of robust growth, 2½ feet to 3 feet, according to the variety, should be allowed between the rows.

Early varieties should be planted 10 inches apart in the rows, second-early kinds about 13 inches between the sets, and the maincrop and late sorts 16 inches to 18 inches asunder in the rows. The early kinds should be given a warm border, and should be planted forthwith, second-early kinds in late March or early April, and mid-April for maincrop and late varieties. Plant the tubers 6 inches deep on light soils, and on heavy soils 4 inches deep. In Fig. 2 a section of a row of tubers planted in a drill 4 inches to 6 inches deep, and rather more than 1 foot asunder, is shown. The drills are drawn with an ordinary garden hoe or a spade, and the soil is drawn over the tubers as soon as the row is planted. Plant when the soil is fairly friable. On no account trample on the land or attempt to plant when the soil is sticky and adhesive. When the ground is very heavy, it is a good plan to cover the sets with a quantity of prepared light soil. D. B. CRANE.



1.—SEED POTATOES IN A SHALLOW BOX FOR SPROUTING.



2.—AFTER SPROUTING THE TUBERS ARE PLANTED IN ROWS, CROWNS UPPERMOST.

HOW TO GROW GOOD LEEKS.

THE Leek is a hardy plant and not at all difficult to grow; but where extra fine specimens are required for any special purpose, the best cultivation possible must be given. Fine plants cannot be grown in a short period, and as the Leek is very hardy, there is no need to attempt to grow them so. Sow the seeds early, and so allow the resultant plants ample time to grow into large specimens. Select a warm border, and deeply dig or trench the soil to a depth of at least 18 inches; 9 inches or 1 foot will not be deep enough. Procure some well-rotted manure and thoroughly mix a liberal quantity with the soil; fresh manure must not be used. Sow the seeds thinly broadcast, not in drills, and cover them half an inch deep. The latter part of March is a good time to sow the seeds. When the seedlings are about 4 inches high and possess two leaves with a third just showing, transplant them in a nursery bed 4 inches apart each way, the soil being prepared as advised in the case of sowing the seeds. Some of the roots will be many inches in length, so care must be taken to lift all without breaking them off. This is the way to make a good start in the cultivation of fine Leeks. Further cultural hints will be given shortly. AVON.

DAFFODIL NOTES.

FAILURES IN FORCING.—I have had this year several very striking examples of the vast difference there is in having the same variety in flower at the end of January and at the end of February or the first week in March. In several cases in my own experience, where at the earlier period the behaviour of the bulbs was very indifferent indeed, later on the self-same stock produced as good results as anyone could wish to see. It has been suggested that two sunless summers coming together, like we experienced in 1909 and 1910, prevented the proper ripening of the plants, with the obvious result that this has been anything but a good season for early forced bulbs.

The practical bearing of my remarks is to suggest a likely reason for the failures which some of my readers may have experienced this year, and also to raise the question as to whether it would not be possible for dealers and growers to give more attention to the proper ripening of bulbs which are intended for the earliest batches. From experiments and trials which I made last season and the season before, I am certain that early ripening is an essential factor for getting good flowers in January. Some varieties, such as obvallaris (Tenby), Golden Spur, princeps and, among the newer ones, Seagull, come so easily that it does not make so much difference in their case; but there are others, such as Victoria, Sir Watkin, ornatus and Emperor, where it certainly does.

GROWING WITHOUT DRAINAGE.—This year I grew a considerable number of both Daffodils and Hyacinths in bowls and fancy pots without drainage. Some were planted in fine peat-moss, such as is used for packing Tomatoes in; some were planted in ordinary *light* garden soil, and a very few in coarse silver sand. My gardener and myself were unable to see any difference whatever in the quality of the blooms produced from the different rooting mediums. But what was surprising was that in every case those which grew in soil came into flower some days before those in moss or fibre. The treatment all through was in both cases identical. This may be a useful hint for those who do not want to go to more expense than is necessary.

SHALLOW POTS.—I am more than ever convinced that anyone who sees Daffodils, Tulips and Hyacinths growing in shallow pots and in the ordinary ones will always want to have the former for their bulbs. I am often astonished at the small root space which suffices to get fine blooms. One of the finest Glory of Leidens that I have seen was grown in my kitchen this year in an old honey-pot which was 4 inches deep and a bare 3 inches in diameter. Hence no one need be frightened at using these shallow pots, thinking they will not get good flowers.

HYBRIDISATION.—When these lines are in print, what is, for many of us, the great time of the year will be almost here—the time of hybridising; the time when we are busy making our very first and all-important preparations for the great harvest of 1915, 1916 and 1917; the time of match-making; the time of back-breaking; the time of anxious hopes; to be succeeded by days of patient watching; and then the opening of the pod and the sight of the smooth, shiny black pearls, the visible reward of all our pains! Old hands know all about this far better than I do myself, but as

> " . . . naturalists observe, a flea
> Has smaller fleas that on him prey;
> And these have smaller still to bite 'em;
> And so proceed *ad infinitum*."

So there will be some who will be glad of the few wrinkles that I can give them. These will form the subject of part, if not all, of my next notes, together with the picture (if only the Editor will put it in) of a wonderful patent back-saving arrangement invented and brought to great perfection by one who has arrived at that stage of life when, upon stooping, he is painfully conscious he has got a back.

JOSEPH JACOB.

PEARS AND THEIR CULTURE.

ALTHOUGH in many gardens, particularly in the South and West of England, Pears grow freely and produce good crops of high-class fruit, it is necessary in colder localities to provide some of the best varieties, such as Doyenné du Comice and Marie Louise, with the shelter of a south wall if we are to get their luscious fruits finished to perfection. The system of growing the better varieties of the Pear as single sloping cordons on walls has been much favoured of late years by the best growers, and no doubt it has much to commend it. Bearing in mind, however, that the beginner in fruit-growing is not likely to have such a wall at his or her disposal, we must turn our attention to the conditions that are likely to prevail in ordinary gardens. In every case the Pears should be given the warmest and most sheltered position, and the kind of stock on which they are grafted must be seriously considered, according to the natural character of the soil. When established, Pear trees are not at all difficult to manage. Their fruit is borne on short side growths or spurs, precisely as we find in the majority of Apples.

Owing to their early flowering, the blossoms of Pears are frequently damaged by frost, and every spring many samples of flowers are dispatched with the request that information be given as to why they have fallen prematurely. The stamens are blackened and dead, and the flower, of course, is quite useless. Where cordons or espaliers are grown on walls, it is not a difficult matter to protect them by hanging tiffany or a double thickness of old fish-netting over them at night for a week or two during this critical period.

The gathering of Pears is an important phase of their culture; the fruits must on no account be gathered until they part readily from the tree, a good plan being to gently lift them upwards. When ready for gathering they will part from the stem.

The selection of a list of dessert varieties suitable for the beginner is a most difficult task; but the following may be relied upon to do well in all except the very coldest localities. Dessert varieties: Doyenné d'Eté, small early Pear, should be gathered and eaten at once in July; Jargonelle, August; Williams' Bon Chrétien, September; Beurré Hardy, Conference and Louise Bonne of Jersey, October; Beurré Superfin and Emile d'Heyst, November; Easter Beurré, December to March, should be planted only in warm soil; and Josephine de Malines, January to March. Pitmaston Duchess is frequently recommended as a good, reliable dessert variety, but the fruits are too large, and even in the best seasons the flavour is not extra good. In localities where it does well it generally produces heavy crops. Cooking varieties: Catillac, Vicar of Winkfield, Verulam and Uvedale's St. Germain. The latter does best on a wall, where it will produce large fruits of poor flavour.

One frequently hears complants regarding Pear trees not fruiting. This is often due to the roots making over-vigorous growth, which gives rise to a corresponding vigour among the branches. Vigorous growth is invariably unfruitful, and the best way of dealing with such trees is to either have them root-pruned or transplanted when resting. H.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Pruning Lilac trees (*Elizabeth*).—You may thin out your old Lilac trees at once. Cut away weak inside wood and suckers, but do not shorten the main branches; this ought not to be done until the flowers are over.

Soil for alpines (*J. S. T.*).—You might use the peat or bog-like soil in the proportion of one-half, the other half to be of loam one part, and grit and sand half a part each. The soil is not rich, but its light, open character will render it of much service for the plants you name. Should your loam be of a light description, employ rather more of this and less of the boggy soil; but if the loam is from a good pasture with plenty of fibre, the mixture as first given will do quite well.

To clay-puddle a pond (*Elizabeth*).—To puddle your pond you must obtain good clay of a tenacious character. It should be broken up with a sharp spade and have water added to make it workable. Commence in the middle of the pond by placing a patch of clay 3 yards square and 9 inches deep. Add water and thoroughly pound or tread the mass until it is properly welded together. Smooth the surface with the back of a spade, and proceed with other patches until the whole area is covered. Keep the clay wet as the work proceeds, for if the surface becomes dry it will be liable to crack. As soon as the puddling is completed, fill the pond with water. Your German Irises are suffering from Iris rot, a bacterial disease caused by Biallus omnivorous and one or two other bacterial agencies. All that you can do is to take up and burn all the affected plants, and plant an entirely different crop on the ground; or, if you wish to plant Irises on the same ground again, remove the soil to a depth of 18 inches and make up the deficiency with fresh soil. Plants only slightly affected may sometimes be cured by cutting away the diseased parts and dusting the wounds over with lime, a dressing of fresh lime being dug into the ground previous to re-planting.

Yellow leaves on Arum Lily (*D. B.*).—It is impossible to assign any specific reason for the leaves of the Calla going off in the way of the one sent, but it is, in all probability, owing to a change of treatment. For instance, it may have been kept in a warmer structure previous to coming into your hands. Furthermore, at this season of the year Callas, in common with many other plants, lose some of their oldest leaves.

Annuals (*B. L.*).—Much, naturally, depends upon the soil of the garden and the conveniences at your command. For example, if you have a heated greenhouse, Antirrhinums and Pentstemons could be raised and bedded out, also Marguerite and other Carnations that flower quickly from the seedling. Some of the more showy groups of annuals include Godetias, Asters, Poppies in great variety, Chrysanthemums—such as Morning Star, Evening Star, carinatum, coronarium and others—with Mignonette, Candytuft in several shades, Orange King and Lemon Queen Marigolds among many sorts, Alyssum maritimum, Tom Thumb Nasturtium, Nemophila, Gaillardia, Dianthus, Cornflowers, Dimorphotheca aurantiaca and the like.

Abortive Tulip (*S. W.*).—The Tulip flower was abortive, but from what reason we are unable to say. The bulb is of large size and sound, but the manner of rooting was defective. The bulbs may have been insufficiently ripened, or some error in cultivation may be the chief cause of the failure.

Crocus and Iris (*M. B.*).—We do not think an ordinary dressing of lawn sand would make the least difference, and it is much more probable that the soil is unsuitable, or this in conjunction with the bank. You say nothing of the nature of the soil, and of the condition of the bulbs or their chances of success another year we are unable to give any opinion. Iris reticulata prefers a very sandy and warm soil; the Snowdrops are more happy in a cool soil of considerable depth. If you could send a few bulbs for inspection, we might form a more definite opinion.

To cover the trunk of a dead Chestnut tree (*Mrs. Clarke*).—We advise you to plant a strong-growing Ivy at the foot of the tree, such as the common Irish Ivy; then, outside the branches, plant several strong-growing Roses, such as Alberic Barbier, Dorothy Perkins and Hiawatha. These, and more especially the first-named, are semi-evergreen. Make good-sized holes for the plants, and provide them with good loamy soil in order that they may have a good start. A stake to each plant will keep the branches secure until they are tall enough to find support from the branches of the tree.

Annuals for massing in separate colours among Roses (*Enquirer*).—Some very lovely annuals suitable for bedding or massing, grouped approximately to colour, are: Blue.—Ageratum, Agathæa cœlestis, Delphinium Blue Butterfly, Lupinus subcarnosus, *Nigella Miss Jekyll, *Phacelia campanularia and Nemesia Blue Gem. White.—Antirrhinum nanum, *Candytuft Spiral Giant-flowered and *Clarkia pulchella Double White. Crimson.—Antirrhinum nanum Crimson King, Calliopsis Tom Thumb and C. Crimson King, *Godetia Sunset and G. Crimson Glow and *Linum grandiflorum rubrum. Pale yellow.—*Chrysanthemum coronarium Primrose Gem. Pink and rose.—Antirrhinum nanum, *Clarkia pulchella, *Eschscholtzia Dainty Queen and Silene pendula compacta. Golden orange.—*Chrysanthemum coronarium Golden Gem, *Eschscholtzia Mandarin, Gaillardia picta, Marigold Double French, Rudbeckia bicolor and *Bartonia aurea. Scarlet.—Alonsoa Warscewiczii, Dianthus Heddewigii Firetail, *Godetia Duke of York, *Nasturtium Lilliput, Beauty of Malvern, *Poppy The Tulip and Phlox Drummondii splendens. Those varieties marked with an asterisk may be sown in open ground very thinly in April; thin out to 6 inches and afterwards to 1 foot apart. The others should be sown in pans or boxes in February or March in a slight heat. Prick out when large enough to handle 3 inches or 4 inches apart in flat boxes, and plant out in the open in June 1 foot or more apart.

THE GREENHOUSE.

Constructing a greenhouse (*Glentham*).—For plant-growing a low span-roofed house such as that suggested by you is undoubtedly the best, and we consider that a good plan will be to make the structure in one and divide it into greenhouse and stove compartments. A flow and return 4-inch pipe will be needed for the greenhouse, while the stove will require more. The boiler should be at the stove end, as that will require to be warmer than the other portion, and the pipes must be so arranged that the heat can be shut off from the greenhouse without interfering with the other. If the pipes are carried round the outside of the structure, this can be done by running a main through the stove for the separate supply of the greenhouse, with valve for shutting it off when not needed. You speak of side lights, but top ventilation will also be required. For the stage, slates supported by T irons make lasting supports, and fungus is not encouraged, as often happens where wood is used. For covering the stage, fine gravel, coke breeze (broken small), spar, or crushed cockle-shells may be used. The house should run north and south, as if east and west the northern side never gets any direct sunshine. If the arrangement of the ground is such that you build the houses side by side, the boiler may be between the two with the pipes branching therefrom into the two houses.

Half-hardy plants for the greenhouse (*Ravenshoe*).—Two of the three plants named by you are not annuals, and are not likely to give satisfaction in the way suggested. The first, Salvia patens, is a tuberous-rooted perennial, which, hardy in some districts, may in cooler localities be treated as a Dahlia; the second, Lobelia cardinalis, is a herbaceous perennial, very showy in the flower garden in the summer, but not well adapted for pot culture. The Kochia will thrive under the conditions named by you, and other annuals likely to give satisfaction are Alonsoa Warscewiczii compacta, scarlet; Amarantus tricolor, leaves red, green and yellow; Browallia elata grandiflora, blue; Chrysanthemum tricolor, various; Clarkias of sorts; Dimorphotheca aurantiaca, orange; Gilia coronopifolia, scarlet; Gomphrena globosa, purple and white; Godetias, various; Nasturtium, dwarf varieties, different colours; Nemesia of sorts, various; Nicotianas in variety, different colours; Petunias; Rhodanthe Manglesii, pink and white; Salpiglossis, various; Schizanthus in variety; Statice Suworowii, pink; Thunbergia alata, yellow; and Zinnias of sorts. Sweet Peas can be grown against large-meshed wire-netting; in fact, some prefer this means of support.

Greenhouse plants with pale leaves (*H. W.*).—The most likely cause, we think, is too much lime in the soil. As soon as the plants begin to grow, add a little Peruvian Guano to the water, a handful crushed fine and dissolved in two gallons of water. Water with this once a week; not every time you water.

Phyllocactus fruits and seed (*H. C. R.*).—The fruits of Phyllocactus take a long time to ripen after the fertilisation of the flowers, in some instances not till the following year. The fruits should naturally turn red. When the fruits are quite ripe, the seeds should be extracted therefrom and laid out on a piece of paper for a few days to dry previous to sowing. The seeds may be sown in pots or pans, but in either case the receptacles must be clean and well drained. A mixture of loam and sand, lightened if necessary by a little peat, makes a very suitable compost. Care must be taken that the seeds are not buried too deeply, and when all is finished the soil should be watered through a fine rose. Cacti need less water than many subjects; but, on the other hand, once the seed is sown, the soil must not be allowed to get quite dry. In a stove temperature the seed germinates quickly, but under cooler treatment it, of course, takes a longer time. If the seed is available, it is better sown in the spring; but if the fruits do not ripen till the summer, it should be sown then in preference to keeping it over the winter, providing a warm house is available. When large enough, the young plants may be potted off singly into small pots and given the general treatment accorded to Phyllocacti. When the object is to flower the seedlings as soon as possible, it is an advantage to keep them somewhat warmer than established plants are usually treated.

Schizanthus for spring flowering (*Mercury*).—As your plants of Schizanthus look drawn and weak and are now about 2 feet high, there is no doubt that they have been kept too close and warm and with insufficient light. A free circulation of air and plenty of light are very essential to their well-doing. We will now answer your questions further in detail. 1. What is known as grandiflora hybrids represent a desirable form for pot culture, being comparatively dwarf and with large and showy blossoms of various colours. Wisetonensis, another dwarf grower, is a general favourite, while taller kinds, but equally showy, are the forms of S. pinnatus and S. retusus. 2. August or early in September. 3. Should be kept as cool as possible consistent with being safe from frost. Till severe weather they do well in a cold frame, and then a light shelf in a greenhouse suits them best. A night temperature of 40° will be quite sufficient for them. 4. Once, or, in the case of some individuals, twice. 5. Good examples of the dwarfer kinds may be grown in pots 5 inches to 6 inches in diameter, or larger examples can be obtained by growing three in a 7-inch or 8-inch pot. This latter plan is particularly suitable for the taller growers. 6. Liquid manure and soot-water combined is unsurpassed, but any of the more inodorous concentrated manures which are now so popular will give good results.

ROSE GARDEN.

Rose Carmine Pillar (*Constant Reader*).—All the varieties of this section, that is, the rambler class, should have the main rods shortened back about 1 foot or rather more at the beginning of March, retaining only the very strongest of the spurred shoots or laterals, and pruning these to the third or fourth eye from their starting-point. All small shoots should be cut away entirely. Many Roses are pushing unduly early this year, and your safeguard lies in the above treatment. These Roses are not pruned usually in the autumn, but thinned out so as to remove old flowering and superfluous growths and retain the rest of the newly-made rods.

Rose Climbing Liberty not satisfactory (*F. S.*).—Perhaps the plant is unhealthy at the junction where it is grafted, or, maybe, it is upon an unsuitable stock. We should advise you to take up the plant and examine it. If the ball of earth is still very hard, try the simple remedy of rubbing off the edges and prodding the sides with a pointed label. Then hold the plant in a bucket of water for a few minutes and replant. Certainly the heat would be much reduced if you covered the pipes with soil.

Edging to Rose-bed (*Learner*).—Eighteen inches is rather a lot of space to leave between the Roses and the edge of the bed. You could certainly have an edging of some sort, and nothing could be more appropriate than one of the charming little Polyantha Roses, such as Eugenie Lamesch, Baby Dorothy or Jessie, which keep in bloom from June to October and may be kept quite low pruned to the ground annually, or you could plant a nice broad margin of Violas of one distinct shade of colour, according to taste.

Climbing Roses for large greenhouse (*V.*).—Twelve good varieties for greenhouse culture would be as follows: Climbing Niphetos, Climbing Kaiserin Augusta Victoria, Climbing Caroline Testout, Maréchal Niel, Mme. Berard, William Allen Richardson, Francois Crousse, Bouquet d'Or, Lamarque, Climbing Liberty, Fortune's Yellow and Lady Waterlow. Twelve of the best Roses to grow as standards are Hugh Dickson, Caroline Testout, Mme. Isaac Pereire, William Allen Richardson, Gustav Grunerwald, Frau Karl Druschki, Ulrich Brunner, Bouquet d'Or, Grüss an Teplitz, Prince C. de Rohan, Mrs. Sharman Crawford and Viscountess Folkestone.

FRUIT GARDEN.

Selection of hardy fruit in North Derbyshire (*Climax*).—Knowing something of the climate of North Derbyshire, we give a list of kinds and varieties which, we think, will succeed best there. They are arranged in the order of ripening. Dessert Apples: Mr. Gladstone, Worcester Pearmain, James Grieve, King of the Pippins, Blenheim Orange, and Baumann's Red Winter Reinette. Cooking Apples: Potts' Seedling, Grenadier, Lord Derby, Lane's Prince Albert, Royal Late Cooking and Bramley's Seedling. The bush form is the best for the Apple. Dessert Pears: Williams' Bon Chrétien, Conference and Doyenne du Comice. Cooking Pears: Beurré Clairgeau, Uvedale's St. Germain and Vicar of Winkfield. Pears will be better as pyramids. Dessert Plums: Denniston's Superb Gage, Kirke's Blue, Jefferson and American Gage. Cooking Plums: Rivers' Early Prolific, Victoria and Belgian Purple. Dessert Cherries: Elton Heart and Bigarreau Napoleon. Plums and Cherries are better as pyramids. Dessert Gooseberries: Dan's Mistake (red), Whitesmith (white) and Langley Beauty (yellow). Cooking Gooseberries: Whinham's Industry, Warrington and Lancer (good for cooking or dessert). Plant on a dry day, place the soil carefully round the roots, and tread down firmly at the finish.

How to have Grapes as late as possible (*H.W.*).—Keep the vinery airy and perfectly cool until the Vines start into growth naturally of their own accord. Then reduce the air and give a little more warmth and moisture; but always ventilate freely in the morning and at midday of warm days, closing the house (after syringing the borders, pipes and path to create a moist atmosphere) about 3.30 p.m., opening the ventilators again slightly in the evening, and leaving a small chink of air on all night.

Ribston Pippin Apple tree cankered (*E. B.*).—This variety is very subject to canker, and if you cut down the tree now as you suggest it is certain that in a few years the new growths made would be affected in the same way; therefore better bear the ills you have. Cankered trees will go on bearing fruit for very many years, especially if the precaution is taken every winter to cut away the dead matter from round and in the wounds, and to wash and brush the sores clean with warm water and soft soap.

Vine louse on roots (*Vines*).—The Vine roots are attacked by the Vine louse (Phylloxera vastatrix). The young roots show the characteristic galls and the older ones show the breaking up of the cortex and its separation from the wood characteristic of this attack. At the same time, there are numbers of the insect present. This pest has recently been scheduled by the Board of Agriculture, and notification of its occurrence should be at once sent to the Board. The Vines attacked should be uprooted and burned, also the soil in which they are growing should be burned, for there will be constant danger of the pest spreading if this is not done.

Diseased wood on Apple tree (*M. R.*).—The fungus present on the dead shoots and spurs of the Apple sent is Nectria ditissima, the cause of Apple canker and the death of the shoots. All such shoots should be cut out without delay and destroyed by fire to prevent the

spread of the disease. Any large spots showing canker should also be cut out and destroyed, the wounds made in pruning being painted over with lead paint or Stockholm tar. If only one tree is cankered and that can be spared, it would probably be best to remove it altogether and burn it. Every effort should be made to remove American blight, for this insect makes wounds into which the spores of the fungus make their way, and so the disease spreads.

Fruit-growing near the sea (*J. J. W.*).—It would be folly to attempt fruit culture for profit near the sea without efficient shelter, and even with it at times the high winds from over the sea are very destructive to standard fruit trees in summer, so that the grower on the coast would always be more or less handicapped in the work as compared with the inland fruit-grower. The advice given to you by the inland fruit-grower was sound and excellent, only for trees of that kind we would take the turf off for a distance of 6 feet round each tree and dress this exposed surface one year in winter with farmyard rotten manure to the depth of 3 inches or 4 inches, and another year with bone-meal instead, say, two quarts to each tree. The Woburn Winter Wash is, we think, better to use for the destruction of lichen or any of the parasitic growths or insect pests than the caustic alkali wash.

Peach buds dropping (*Learner*).—It is seldom if ever that we hear of Peach trees dropping their buds when grown entirely out of doors. It follows, therefore, that the cause of their dropping must be attributed to a fault or faults in the conditions under which they are growing under glass. Apart, however, from this, some varieties are more prone to cast their fruit-buds than others, notably some of the early American varieties imported into this country some years ago, such as Alexander, Waterloo, &c. The most common fertile cause of bud-dropping in the Peach tree under glass we believe to be due to exposing the trees to too warm a temperature during winter, this inducing the buds to move into growth before a corresponding movement of root growth and sap circulation has taken place to support the bud growth. You must take a lesson from the outdoor Peach tree. Keep your trees as cool as possible during winter, so that when bud growth starts a corresponding movement in root growth will be going on for its support.

Peach, Apricot and Plum trees planted last year (*E. B.*).—Let each shoot of last year's growth be cut back by one-third its length. When disbudding-time comes round—that is to say, when the leaf-buds have developed a growth of a quarter of an inch or so—have all the wood or leaf buds rubbed off except three, one on the apex of the shoots, one about the middle and one at the base, all on the top side of the shoots, if possible, but this is not indispensable. You must not bury the roots of your cordon Pears too deeply in the soil. The top shoots should be within 6 inches of the surface. Mulch the roots with well-decayed rich manure, in order to encourage the formation of plenty of surface fibrous roots, which roots go to form flower-spurs and blossom. Never mind about the union of stock and scion. This does not affect the cane, as all the roots emanate from the stock. Prune back all the side shoots of last year's growth to within two buds of their base, and the leading top shoot of last year's growth by one-third its length.

KITCHEN GARDEN.

To lay out a kitchen garden (*J. C. W.*)—We shall be glad to help you in this matter, but could do so more usefully if you can send us a rough outline drawing of the ground showing its shape, its proximity to the house, and the point at which the walk from the house would enter the garden, also showing the corner of the ground where it is most convenient for the manure heap, weeds and other rubbish to be placed which always accumulate in a garden during the season. It should be at the further corner from the house.

Mushroom-bed in coach-house (*Failure*).—You must continue to cover the bed with litter for as long as it remains in bearing. The quantity to use for covering must be regulated by the heat of the surface of the bed, and to find out this you should place a thermometer under the litter on the surface of the bed. The heat at this time of the year should be from 50° to 57° Fahr. If the heat is below this, you must pile some more litter on the bed in order to cause it to rise. The litter should be fairly dry; wet litter is worse than useless.

Roots forking badly (*Learner*).—The best way to get over this difficulty is to at once trench a piece of ground deeply and manure heavily for the growth, say, this year, of Peas or Potatoes, and plant, in the following spring, with roots without any further application of manure. By following this plan we have never failed to produce the best and handsomest of roots. In preparing for this crop (after the Peas) all you have to do is to fork the ground over one spit deep, to sow your seed on a dry day and tread it firmly in. Sometimes the seed is at fault, and to protect yourself against this you should procure the same from firms advertising with us.

Rhubarb and Seakale planted in brick pit (*Enquirer*).—You say they were planted in good stable manure and the pit covered with straw hurdles. Both these plants are partial to a liberal supply of manure in the soil in which they grow, but they will not succeed if planted in manure alone. Your best plan now will be to replant the roots in ordinary garden soil, and then to put some old boxes or barrels or big pots over the crowns of the roots, and fill up round them and over them with fresh strawy litter from the stable, which will ferment and give off some heat. If the roots of the Seakale and Rhubarb are strong, they should give you a good return in due time treated this way.

Particulars as to starting a Mushroom-bed (*E. F.*).—The first essential is to have fresh manure from horses fed on Corn. In gathering the manure an equal bulk of the strawy short litter should be gathered with it and both mixed together when, say, a cartload has been gathered, and then thrown together in a heap in order for it to ferment. Let the heap be opened at the end of eight days to let out the rank steam. Then put the manure up again in a heap the same as before, opening it again in eight days' time to let out more steam, and then put in a heap again. At the end of another eight days it will be ready to form into a bed. You did not say where you propose making your beds, whether in a properly-constructed house, outhouse or out of doors, in all of which positions Mushrooms can be successfully grown. We will presume that you wish to grow them in a properly-constructed Mushroom house, with shelves, &c., for the reception of the manure. The beds should be 11 inches deep after the manure has been beaten or trodden down as hard as it can be. The next thing to do is to bury a thermometer in the bed, say, 4 inches deep. A week afterwards you will find that the temperature of the bed has risen to probably from 80° to 85° Fahr. At the end of another week or less you will probably find that the heat has declined to perhaps 75° or thereabouts. It will decline still further, and when it has fallen as low as 70° it will be safe to spawn the bed. The spawn cakes should be broken into pieces the size of a hen's egg; these should be inserted in holes in the bed all over it at distances apart of 9 inches. The holes should be deep enough to receive the spawn without burying it too deeply, and the manure should be pressed tightly round the spawn. In a week afterwards you will find a grey thread-like growth surrounding the spawn. This is a sure indication that the mycelium of the spawn is running into the manure, and the time has arrived to case the bed over with soil. The best soil to use is turfy loam passed through a 1-inch mesh sieve. The soil should be rammed down as hard as possible. The depth of soil should be half an inch after it is rammed down. The next important thing to see to is that the bed is maintained at an even temperature of from 58° to 64° Fahr. Keep the house perfectly dark and without air, excepting when necessary to ventilate and sweeten the atmosphere occasionally. The beds should begin to bear in five or six weeks after it has been spawned, and should continue in bearing for the same number of weeks.

MISCELLANEOUS.

Fowl manure (*Learner*).—This is excellent to mix with a soil compound for the growth of soft-wooded plants, such as Fuchsias, Geraniums, &c. Let it be well dried before it is used, and use it at the rate of a pint to a gallon of soil.

How to burn soil (*H. W.*).—Make a substantial fire with logs of wood or coal and cover the fire to the depth of 4 inches with the soil. The soil must not be burnt too much, but let it get sufficiently hot to kill the seeds and any wireworms or other pests there may be in it.

The use of worm destroyer (*H. C. R.*).—Carter's Worm Destroyer may be safely used on garden ground on which annuals are to be sown; but in order to avoid all risk it would be as well to delay the sowing of the seeds for some little time after the application of the destroyer. If it is put on now and the ground dug later on, the seed may be safely sown in the spring. Of the use of perchloride of mercury we have had no experience. Perhaps some correspondent can oblige.

Seed of common Heather (*C. B.*).—Calluna vulgaris is the common Ling, which blossoms on our commons and hillsides together with the common Heather (Erica cinerea) during August and September. You may be able to obtain seeds from Messrs. Smith and Sons, Darley Dale Nurseries, near Matlock. It is doubtful, however, whether they are in the habit of supplying seeds, though young plants are sold almost by the million. In the event of your not being able to obtain the seeds you require, an order placed with the above firm would probably result in their making an effort to save you the desired quantity next autumn.

Top-dressing for a lawn (*H. W.*).—Yes, certainly; scrapings from a fowl-house would be useful. Add a peck to a barrow-load of ordinary garden soil. Dress the mossy part with rich garden soil, adding a peck of lime, a peck of soot and a quart of bone-meal to each barrow-load of soil. Two barrow-loads of this mixture would make a good dressing for one rod of the lawn. Apply this mixture the third week in March, and a week later rake up as much of the moss as you can with an iron-toothed rake, and then scatter some lawn seed over the ground and roll it, protecting the seed from birds until the grass is up. Burn the soil if necessary to kill the weeds.

Yellow patches on Nemesia leaves (*Mercury*).—The Nemesia leaves were so much shrivelled that it was impossible to state the actual cause of the spots on them. They appear to us, however, to be either the result of the attacks of aphides or of too great an amount of atmospheric moisture combined with a low temperature. If so, the chief remedy is to maintain a free circulation of air whenever the outside conditions are genial enough to enable this to be done. The dull, damp winter we have experienced has caused growth of an unusually succulent nature, and leaves produced in this way are more liable to be affected by damp than those of a firmer texture. With the brighter weather and lengthening days the plants will, we think, grow out of this condition, provided their surroundings are congenial.

Moss on a fairly dry lawn (*G. C. M.*).—You will find that a good top-dressing of soil will be as effective as anything for destroying moss in lawns. It improves the surface and encourages the growth of the various grasses which gradually displace the moss. You must, however, give an application of manure about twelve months after you have applied the soil, to keep the surface in good condition. A dressing of sea sand in May is of value, for it encourages the finer and denser-growing grasses, which are thereby enabled to outgrow those of a coarser character. Other good dressings for lawns are bone-dust, basic slag, wood-ashes, soot and spent Hops. Basic slag acts very slowly, and little effect is noticeable for the first year after application. If you mow without a box and let the grass lie on the lawn, it will do good.

Informal hedge for a kitchen garden (*E. R. B.*).—If you plant a hedge of some of the wichuraiana Roses, they will make a tolerably good screen the first year, and at the end of the second year they will be quite dense. Such varieties as Alberic Barbier and Elise Robichon are semi-evergreen, and retain their foliage during the greater part of the winter. A very good plant to grow as an informal hedge in a position such as you describe is Berberis stenophylla; it, however, would take several years to form an effective screen, for you could not insert very large plants in the first instance. Should you plant the Roses, it would be well to erect a temporary wooden fence on which to secure the branches for a start, or place a number of posts in the ground.

Management of a propagator (*Sunderland*).—We have had no personal experience with the kind of propagating-frame you describe, but we should imagine that your lack of success is due to a fluctuating temperature and to too great a difference between the bottom-heat and the heat of the frame generally. It is a good plan to leave a little ventilation on the case when condensation is heavy, but 1 inch is too much and must keep the case cold. If you have an opportunity of making a hot-bed under a frame out of doors with manure and leaves, you will find that it will form an excellent place for rooting cuttings quickly. In fact, some market-growers place their young Chrysanthemums in a slight hot-bed for a month or two, in order to obtain growth quickly and keep the plants soft until a good foundation has been laid.

Cross-fertilisation (*Naoriland*).—To produce new varieties of plants by crossing, it is necessary to transfer the pollen from the stamens of the flower of one variety to the stigma of the flower of another variety when it is in a receptive condition (sticky in appearance), and at the same time to prevent any foreign pollen from getting to the same stigma. Seed is carefully and separately saved and raised, and if the hybrid (or cross-breed) can be propagated vegetatively, as with Pelargoniums, Daffodils, &c., there is no further need of selection. If not, the seed is saved from (if possible) self-fertilised plants, and much variation may be found in the second generation. Seed will be saved from the self-fertilised plants most like those wanted, and saved and sown separately. If the whole of the seed from one plant reproduces the plants true, it may be taken that the variation is fixed, and the mixed progeny from others should be thrown away. Where self-fertilisation is not possible, other means have to be taken which will readily suggest themselves. There is no book on the subject, but a careful study must be made of the structure of the flowers it is desired to cross and of their behaviour as regards natural methods of fertilisation, and such works as those of Knuth (in German), Bateson, Punnett and de Vries will afford a fund of suggestions as to the procedure to be followed. It may be taken that breeding from individuals, and not from masses of rather similar individuals, is the more likely to lead to success, though this fact is hardly realised at present. (B) Dwarf races of plants have been derived, as a rule at least, from tall-growing races. A sudden variation has appeared among a group of seedlings. The variety has been isolated (completely if self-fertilisation can be effected) and bred from. This has given rise to the dwarf race. (C) Seeds of double Stocks are obtained from saving seeds from single Stocks belonging to a race which throws doubles. The greater the number of doubles thrown by a race in proportion to the singles, the greater the probability of the seed of the singles belonging to that race producing a large proportion of doubles. Double Stocks produce neither ovules nor pollen, and so can in no way be used for seed production. It is not known, in spite of many assertions to the contrary, that external conditions have any influence upon the tendency to doubling of Stocks. (D) Nitragen was put upon the market by a German firm, and several similar preparations have been placed upon the market by others, as a rule consisting of artificial cultivations of the nodule-producing bacteria. These preparations are widely advertised, but their use has been productive of little benefit in England, largely, no doubt, because our soils are already well stocked with nodule-producing germs. In lands not previously devoted to legumes and in the case of new leguminous crops, their use might be justified. (E) Yes; frequent turning of turf, so long as it is moist, aids decomposition, owing to the free admission of air, but it also frequently leads to loss of some of the valuable chemical constituents. (F) The only means by which Begonia Gloire de Lorraine could be carefully exported to New Zealand would probably be in Wardian cases placed under the supervision of a careful man. It might, however, reach New Zealand by stages overland Seeds cannot be obtained.

Names of plants.—*W. J. B.*—1, Pteris cretica; 2, Aspidium falcatum; 3, Cupressus sempervirens; 4, Pernettya mucronata. —— *C. T.*—Adonis autumnalis. —— *Green Hellebore.*—Helleborus fœtidus

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE NATIONAL ROSE SOCIETY'S ANNUAL.

"BIGGER and better than ever" must, we think, be the verdict of the members of the National Rose Society on their Annual for 1911. It may be taken as indicative of the rapidly-increasing popularity of the Rose in its many forms that this annual publication increases in size and interest each year, and fortunate indeed are the members of the society in having a publications committee capable of compiling so useful and important a volume.

The articles on the dates of flowering of different varieties of climbing Roses are the most interesting feature of the Annual for this year, and one most pregnant with possibilities. This subject is introduced by Mr. H. R. Darlington and Dr. A. H. Williams, and will prove of considerable value to many who desire to plant Roses with a view to obtaining a particular effect at an approximate date. As Dr. Williams points out, information on this subject is practically unobtainable. It is perhaps too much to expect nurserymen to give approximate dates of flowering in their catalogues; yet were they to do so, we feel sure that such information would be highly appreciated by their customers. But this information ought not to be confined to climbing Roses. In these days, when Roses form so important a decorative feature in our gardens, it is desirable to have those varieties grouped together which will flower at about the same time; and although the difference in the time of flowering may not be so great in the case of Teas, Hybrid Teas and Hybrid Perpetuals as in the climbing section, there is sufficient diversity in this direction to cause the novice a considerable amount of trouble and worry.

Next in relative importance must come the admirable essays by renowned growers of the Rose on how to prepare Rose-beds, a subject ably introduced by Mr. E. J. Holland. Practically all kinds of soil are dealt with in these essays, and the information given cannot fail to be of the greatest value to Rose-growers. The consensus of opinion is that deep cultivation is essential, no matter what the character of the soil may be, with thorough manuring at a good depth, the favourite manure being that from the pigsty in the lower spit, supplemented with crushed quarter-inch or half-inch bones nearer the surface. In light, sandy soils the addition of new soil is wisely advised, and in those of an opposite character the importance of thorough drainage is fully emphasised.

The article on Tea Roses for bedding, by Mr. H. R. Darlington, is an admirable one, and throws much light on a subject that has long been a source of worry to the amateur Rose-grower. As Mr. Darlington rightly points out, there are a number of Tea Roses quite unsuitable for bedding purposes, but which are of the greatest value for the show-tent, where their artistic merits often win favour with visitors, who are thereby induced to plant them largely, the result being that severe frosts and wet create considerable havoc in their ranks during the winter months, or, if they survive, many of them are too shy in blooming to be of value for garden decoration. But a bed of Tea Roses, wisely selected, will appeal to the higher tastes of many ardent rosarians, and we feel sure that Mr. Darlington will not object to us quoting the list of eighteen varieties that he gives, "with some diffidence," as being specially suitable for bedding: Anna Olivier, Auguste Comte, Corallina, G. Nabonnand, Hon. Edith Gifford, Innocente Pirola, Lady Mary Corry, Lady Roberts, Mme. Antoine Mari, Mme. Henri Berger, Mme. Jean Dupuy, Mme. Lambard, Marie van Houtte, Molly Sharman Crawford, Paula, Peace, Princesse de Sagan and Sulphurea. It may be of interest to record that if Mr. Darlington were only allowed to grow one bed of Tea Roses, he would select Mme. Antoine Mari, this possessing, in his opinion, the all-round qualities of a good bedding Rose.

In addition to the articles that we have briefly referred to, there are a host of others of considerable interest to Rose-lovers. Among these mention may be made of the Rev. J. H. Pemberton's excellent review of the Rose season of 1910; the Rev. F. Page-Roberts's humorous discourse on "Nosarians and Antinosarians," wherein he makes out a fairly good case for scentless Roses that are in other respects perfect; Mr. George Paul's interesting review of the Paris Quinquennial Horticultural Show; and the descriptions of some of the newer Roses, together with the directions for pruning those Roses which are not included in the last edition of the Society's "Handbook on Pruning Roses." Indeed, this Annual is full of good things,

and reflects the greatest credit on the publications committee and on the hon. secretary, Mr. E. Mawley, who has filled the heavy, yet to him no doubt pleasant, post of editor. Copies can be obtained by non-members of the society from the hon. secretary, price 2s. 6d., post free.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 28.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at three o'clock by Mr. R. C. Reginald Nevill on "Alpines in their Native Homes." Wood Green and District Horticultural Society's Meeting.

March 29.—Irish Gardeners' Association and Benevolent Society's Meeting.

March 30.—Torquay Spring Exhibition.

April 1. — Société Française d'Horticulture de Londres Meeting. Stockton Heath Garden Society's Spring Show. Paisley Florist Society's Spring Show.

Lieutenant - Colonel Prain, F.R.S., director of the Royal Botanic Gardens, Kew, has been elected a member of the Athenæum Club under the provisions of the rule which empowers the annual election by the committee of a certain number of persons "of distinguished eminence in science, literature, the arts, or for public services."

Protection of native plants. — It was announced in a recent number of the *Selborne Magazine* that the Selborne Society proposes to take action with respect to the protection of British plants. This will be welcome news to those who are interested in our flora. The society has established a section to deal especially with this subject, and has appointed Dr. Rendle president and Mr. A. R. Horwood (of the Leicester Museum) recorder. Mr. Horwood will be glad to receive offers of co-operation in this work.

Hanley Horticultural Fete.—Owing to the federation of the six Pottery towns, viz., Hanley, Stoke, Burslem, Longton, Fenton and Tunstall (now called the County Borough of Stoke-on-Trent), there has been some delay in commencing the preparatory work of the show, which is held by the direction of the council. The federation should be the means of increased support, the population being about 260,000. As may be seen in our advertisement columns, it has been decided to hold the fifteenth great annual floral fête in the Hanley Park on Wednesday and Thursday, July 5 and 6.

Appointments at Kew.—From a recent issue of the *Kew Bulletin* we learn that the Lords Commissioners of His Majesty's Treasury have sanctioned, on the recommendation of the Board of Agriculture and Fisheries, the transfer of the foremen and storekeeper in the Royal Botanic Gardens from the temporary to the established staff, and Civil Service certificates have been issued for Messrs. G. Dear, W. Irving, C. P. Raffill, A. Osborn, T. W. Taylor and J. Coutts. Mr. Harry Dodd, formerly curator of the Botanic Station at Onitsha, Southern Nigeria, has been appointed by the Secretary of State for India in Council, on the recommendation of Kew, a probationer gardener for service in India. Mr. Harold Green, a member of the gardening staff of the Royal Botanic Gardens, has been appointed by the Secretary of State for the Colonies, on the recommendation of Kew, assistant-superintendent of the Botanical and Forestry Department, Hong Kong.

Windsor and Eton Rose Society.—The annual show of the Windsor, Eton and District Rose and Horticultural Society will be held, by gracious permission of His Majesty, in the Slopes of Windsor Castle on June 28 next.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A well-grown Lilium auratum.—In view of some very interesting letters on Liliums which have appeared in recent issues of THE GARDEN, I am sending a photograph of a plant of L. auratum grown by Mr. Langley, Bushey Heath, Herts, a working-man who takes a great interest in his garden. When the photograph was



LILIUM AURATUM IN A HERTFORDSHIRE GARDEN.

taken there were twenty-three fully expanded flowers, with two more ready to open, on stems over 6 feet in height, thus entitling Mr. Langley to all credit for the good management of his plant. I am sending these particulars and photograph in the hope that they may induce some readers to likewise adorn their front garden with this beautiful Lily.—T. H.

Tropæolum tuberosum.—Arising out of a note of mine a few weeks since in THE GARDEN, and which followed on a reference to Tropæolum tuberosum roots when cooked as edible food by Mr. Arnott, I was just recently favoured, by the kindness of Mr. C. Roberts of Trevona, Padstow, Cornwall, with tubers of full size and others of lesser size, the first for cooking, the latter for planting. Whether rightly or not, the large tubers were cooked whole and in their coats, being gently boiled until soft. When dished up the tubers were of a dark and unpleasant appearance, and when cut through were much stained with dark colour in the flesh. The taste was by no means pleasing, and a very small portion satisfied. It may be that the cooking was all wrong; I do not know. The coats were thick, of irregular shape and difficult to remove. The flesh within in texture resembled that of the Jerusalem Artichoke. Mr. Roberts informed me that these tubers are largely consumed by the Japanese. Mr. Roberts grows this beautiful climber in quite huge quantities for wholesale purposes, and has a very early-flowering stock.—A. D.

Seeds of various plants.—In the interesting notes "About Seeds of Various Plants" in THE GARDEN for March 4 (page 111), reference is made to the vernacular names of the climbing leguminous plant Abrus precatorius, a native of India, but now found in most tropical countries. By far the most common name for the seeds of this widely-spread plant is Crab's Eyes, and for the plant itself Wild or Indian Liquorice. Black-eyed Susan and Rain Tree are names unknown to me as applied to Abrus precatorius; but the latter name is quite well known as being attached to Pithecolobium Saman, a leguminous tree of the West Indies and South America. The name in this instance is derived from the fact that the ground under the tree is always wet, caused, it has been said, by "multitudes of Cicadas sucking the juices of the tender young branches and leaves, and squirting forth slender streams of limpid fluid," a phenomenon that has not been noticed with trees introduced into India and other countries. Under the name of Weather Plant, however, some attention was drawn to Abrus precatorius a few years back, on the Continent as well as in this country, as the plant was said to indicate changes in the weather. At the moment I forget the name of the Continental writer, but Dr. F. W. Oliver, now Professor of Botany in University College, London, made some careful observations and recorded the results, since which time, I believe, no further observations have been made. The name of Wild or Indian Liquorice is derived from the fact that the root was formerly believed by Indian doctors to possess similar properties to the true Liquorice, and was used as a substitute for it. The chief use of the seeds is for ornamental purposes, on account of their bright colour; but some years ago they were introduced into this country for use in ophthalmic cases. They are poisonous in a raw state, but when boiled can be eaten in small quantities. There is a remarkable uniformity in the weight of the seeds, just under 2gr., so that they are used for weighing precious stones and metals by the native jewellers. It has been suggested that one of the Hindustani names, Rati, is derived from the Arabic Kírát, and from that the English jewellers' weight carat is obtained.—JOHN R. JACKSON.

A proposed Pansy society.—"E. M." is by no means wide of the mark in questioning my seriousness in proposing the formation of a Pansy society. But I had one practical object in view, and that was to see, first, whether the proposed Hardy Plant Society purposed to include in its operations all hardy plants, which would, of course, embrace Pansies; and, secondly, to see whether there existed any real Pansy enthusiasts, such as did exist fifty years ago. The promoter of the Hardy Plant Society responds at once to the effect that Pansies will be included in that society's operations; and if all other hardy plants, including florists' flowers, are also looked after in the same way, that body is taking on a big job. With respect to the second motive, there is a response from Mr. Rudolph Beer which merits the warmest commendation, because in him we see an earnest Pansy-lover

and enthusiast. He reminds us of the existence already of a Northern Pansy and Viola Society, which I certainly had overlooked, and the existence of which shows that, after all, my proposal for the formation of a National Pansy Society may have, all the same, a solid basis. I realise that the remarkable development seen in the formation of these special societies is primarily due to the vast expansion of the true amateur element in gardening, and that, unlike the operations of the professional gardener, which do, as a rule, cover all phases of gardening, those of the amateur have to be severely restricted to but one or two aspects or kinds of products, because of the limited space at disposal and limited means. It is for that reason we see so many confining their love and culture to the Rose, Dahlia, Carnation, Sweet Pea, Auricula, Daffodil or other specialities. The amateur knows that he can grow only just a few things, and those for which he feels the greatest amount of enthusiasm.—A. D.

Vines and Peach trees in the same house.—I have seen an occasional good crop of Peaches in the same house as Vines, but generally this combination is unsatisfactory, and one I never recommend except under special circumstances, and that is mainly when the house is suitable owing to some structural detail. It is generally the Peaches that fail under ordinary dual control, and this is mainly owing to the unripe wood of the trees, which are more readily affected than the Vines, because in all cases that I have come across the Vines enjoy the premier position, *i.e.*, the roof, and it is generally for that reason that the Peaches have to take a mere chance of success. As to structure, an ordinary lean-to house is the worst of all, because with the Vines planted and trained in the ordinary manner the sun's rays are quite shut out from the Peach trees up the back wall. Planters of Vines stick so close to a theory of example in arranging their wire supports so near to the glass, and at a parallel distance from base to summit, that matters are so much more aggravated for the Peach trees. Too often the wires are within 16 inches of the glass, sometimes even nearer than that. Now, this method has little to recommend it beyond convenience to the inside of the house, Especially is this important if the house is not lofty. Vines will grow equally well, or better, 2 feet or even 3 feet away from the glass than they will so close as to touch the glass with their leaves. If the Vines were further from the glass the Peach trees in an ordinary lean-to house would succeed so much better. A three-quarter span or a short hip roof is quite the best structure for a combination of Vines and Peaches, and if the Grapes are not required before August or later, there is no reason why an absolute success should not be obtained with both. By training the Peach trees up the back wall and under the roof of the hip they will obtain a sufficiency of light for both growth and the ripening of the wood to give satisfactory results. As previously noted, Vines need not be so near to the glass as seems to be the custom. Mr. Taylor, when at Longleat, demonstrated quite a different theory, as there he grew grand Grapes with the rods quite 4 feet from the glass. I have seen in the vineries at Gunton Park, Norfolk, very fine crops of Grapes on the back walls of the ordinary vinery; there the Vines were fully 8 feet from the glass. In fact, that was the best crop of Grapes I have seen from Vines growing against a back wall. Alicante was the variety, and is, of course, an easy sort to grow. Again, I would emphasise the advice: Do not attempt to ripen either Grapes or Peaches earlier than the middle of August in a combination house; not that it cannot be done, but I am sure it is easier at that season.—E. M.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plant Houses.

CYCLAMEN.—As the old plants pass out of flower, remove them to a pit if it is intended to repot them and grow them on for another season. Keep them on the dry side for a few weeks before shaking them out and repotting them into a size larger pot. It is sometimes desirable to save seeds from some of the best plants; these plants should be placed on a shelf in a house of moderate warmth, and be well supplied with water and stimulants. Young plants must be potted on before the roots become pot-bound, and be kept growing in a warm, moist atmosphere near to the glass till the weather is warm enough for them to be placed in a cold frame. They will then require very careful treatment in regard to ventilation and watering till they are well established in their flowering pots. It is a sound plan to lightly fumigate them occasionally to keep them clean.

Clivia (*Imantophyllum*).—These valuable greenhouse plants must be liberally supplied with water when they are throwing up their flower-spikes; liquid manure will also be beneficial. When in flower remove them to the greenhouse, where they will remain fresh for a long period if shaded from bright sun. If desirable, the stock of these plants may be increased by dividing the largest plants. They require rich loamy soil, with leaf-soil, charcoal and crushed bones added.

Schizanthus.—These and other annuals which are growing in pots for the greenhouse must be liberally fed with stimulants when the pots are full of roots. Most of these plants require staking, but this should be done so that the stakes appear as unobtrusive as possible. The beautiful effect of these plants is often spoilt by the careless way in which this work is carried out. Another sowing of Mignonette may be made in pots. A sowing may also be made in a sheltered position outdoors.

The Stove.—With increased solar heat and light the plants in this structure will require more water at the root. The atmosphere must also be kept moist by frequently damping the stages and paths. The temperature at night should not fall below 65°. During the day it may rise to 85° or 90°, but a little air should be admitted at the top of the house on these occasions. Syringe the plants with tepid rain-water early in the morning during sunny weather, and again early in the afternoon, when the house must be closed. Recently-potted plants must be kept close and shaded from bright sun till they have recovered from the effects of the shift.

The Conservatory.—Although it is necessary to admit plenty of air, this must be done with discretion; currents of cold wind must not be allowed to blow among the plants. The blinds should be drawn during the greater part of the day during sunny weather Very little fire-heat will be needed now, and, if frost is anticipated, the house should be closed early in the afternoon.

General Remarks.

If the outside roof glass has become dirty through fogs, it must be washed. Houses containing Melons, Cucumbers, Pine-apples or Tomatoes should be covered during cold nights with garden mats or tiffany. This will save fuel and will be better for the plants, as the temperature can be kept more steady by this practice.

Royal Gardens Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Fruit Garden.

Young Trees.—Look over young or newly-planted fruit trees and see that they are properly secured to their stakes against wind. A soft pad of cloth or hay should be placed round the stems to prevent injury to the bark. Thoroughly examine all trees that yet require the support of stakes, and should the ties be cutting the bark, renew such without delay. Labels should also be secured properly. If these are fastened by wire to the branches, ample room must be given for the swelling of the wood. A simple and indestructible label for fruit trees can be made if a strip of lead is used, stamping the name thereon. These labels may be fastened to the stakes while the trees are young. Where stakes are no longer necessary, labels can be clasped round the branches, and in doing so it is advisable to follow a system of placing the labels always on the same side of the tree, otherwise they may get lost in the foliage during the growing season.

Apricots and Peaches.—Where these are grown outside on walls, it will be necessary to protect them from frost during the flowering period. This may be done in several ways. A few Spruce branches fixed to the wall, or old fruit-nets doubled and hung over them, will usually provide all the protection necessary. The most efficient method is to have a scrim covering so arranged that it can be readily removed during the day and as easily lowered in the evening. Where time will permit, I strongly urge the advisability of thinning out the flower-buds, where more than a normal quantity is showing, before they develop.

Strawberries.—If preparations for making new beds of these were carried out at an earlier period, the soil should now be in good condition for planting. We get the best results in Strawberry cultivation by allowing 2½ feet between the rows and 18 inches between the plants, annually clearing off all runners so as to leave each plant isolated, and never digging between the lines, all stimulants being applied as top-dressings. Plantations should be made annually so as to keep up a succession of young fruiting plants. Established beds will be greatly benefited if at this season they are afforded a good top-dressing of soot between the rows.

Kitchen Garden.

The Planting of the main quarters of Brussels Sprouts, Cabbages and Savoys may be pushed on. Cauliflowers also that have been wintered in a frame or sheltered place may be planted out on a warm south border and given some slight protection with Spruce branches. An early planting of Potatoes may also be made, but this is recommended only where protection can be given from late frosts.

Sowing.—Such seeds as Onions, Leeks, Carrots, Parsley, Lettuce, Radish, Turnips, Cabbage, Cauliflower and greens for main crop may now be sown.

Horse-radish may be renewed at this time if pieces of the roots are planted in freshly-prepared soil to a depth of 9 inches. Select straight pieces of the roots. This plant should always be confined to one corner of the garden, for if moved from one place to another it is very difficult to eradicate the roots, which give trouble to succeeding crops.

Asparagus-beds should receive a dressing of common salt periodically, unless seaweed is available and has been liberally applied at the beginning of the winter

Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

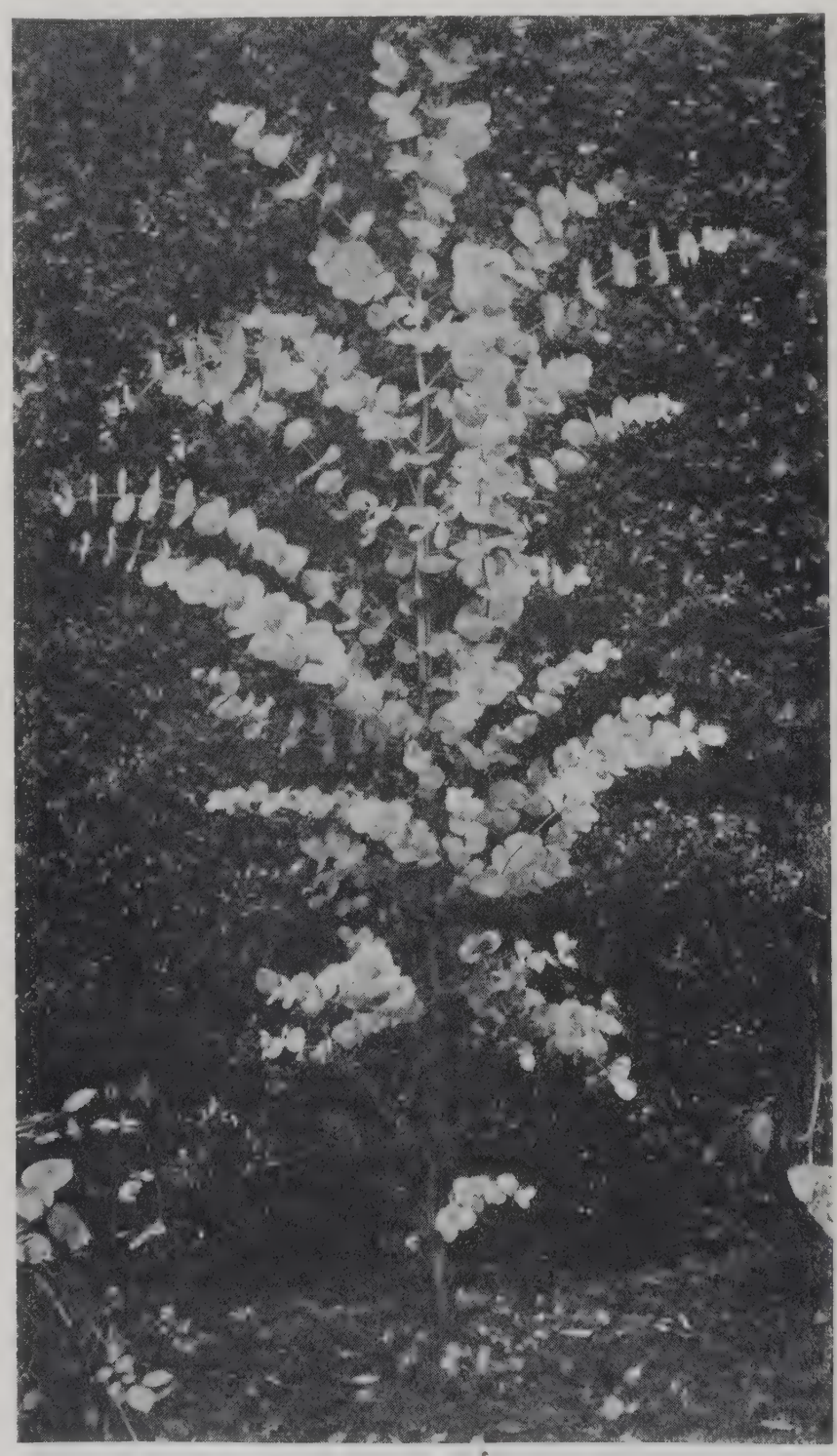
TREES AND SHRUBS.

EUCALYPTUS PULVERULENTA AS AN OUTDOOR PLANT.

I KNOW of nothing better for producing a foliage contrast in English gardens than this Eucalyptus. Though it is not absolutely hardy, in most gardens a cosy corner can be found where young plants will survive an ordinary winter without protection, and perhaps hay-bands or screens, if one had the time and inclination to organise them properly, might do wonders towards preserving it in more severe seasons. It is so easily raised from seed, though, that even if one winter in seven robs us of our treasure, it is worth starting a new generation. It is the bluest of the Blue Gums that are at all worthy of the title of hardy here, and as seen in the illustration, backed by dark Hollies, is a very charming sight. The young shoots are at first of a very curious rosy lilac shade, which, gradually blending into the bluer older leaves, gives a beautifully iridescent sheen to a bush in full summer growth. I had a large specimen of it that flowered and showed how distinct it is from the hardier and taller-growing species, E. cordata. Alas! it got its head up into the wind and was blown over, and, though carefully propped up again, succumbed to a bad winter following on its root disturbance. I find most of the Eucalypti I grow here suffer from getting up into the wind and then being rocked about and loosened in the soil. Even if they are not blown over, this, together with sharp frosts, kills a large specimen when a smaller one escapes unhurt.

E. AUGUSTUS BOWLES.

Waltham Cross.



EUCALYPTUS PULVERULENTA IN MR. E. A. BOWLES'S GARDEN.

HYDRANGEA PANICULATA GRANDIFLORA.

THIS is a well-known and increasingly popular garden plant, but it does not always have the treatment it requires to show itself at its best. Too often one sees it planted in a mixed shrubbery where it is overgrown by other subjects, and the flowers are small and sparsely produced in consequence. Flowering as it does from the end of July to the middle of September, or even later, it is worthy of a bed to itself and a little extra attention. To produce the best results the plants should be cut down to the base of the younger wood in spring, and the young shoots be disbudded to leave only from three to six on each plant. As soon as these shoots are growing away freely, the plants should be fed by a mulch of good manure or frequent waterings with liquid manure. Treated like this, the stems rise to a height of 4 feet to 6 feet, and bear terminal panicles of pure white flowers 2 feet or more in length. A light stick is necessary to each shoot as soon as the flower-heads appear, otherwise they will be broken down by wind and rain.

Bagshot, Surrey. J. CLARK.

THE PLUM-FRUITED YEW.

THOUGH this conifer is known under the common name of the Plum-fruited Yew, it is really a much closer ally of the genus Podocarpus; in fact, one authority, Pœppig, named it Podocarpus andina, and it appears under that name in Lavallée's "Arboretum Segrezianum." Philippi's name of Prumnopitys elegans is, however, adhered to nowadays, for botanists find the plant quite distinct from Podocarpus. It is a Chilian tree, and was introduced to European gardens about fifty years ago, one of Messrs. Veitch's collectors sending seeds home about 1860. Under natural conditions it attains a height of 50 feet, and forms a well-developed trunk somewhat after the fashion of a good-sized Yew. Under cultivation it forms a dense bush with small, rather light green leaves, which are considerably smaller than those of the common Yew. It appears to be quite hardy and grows well, therefore it is a good subject to use as a change from the Yew for garden work. Cuttings of half-ripe shoots taken during late summer and inserted in pots of sandy soil in a close propagating-case form a ready means of increase. During the first year or two after the cuttings have been struck growth is slow, but more satisfactory progress is made after the plants have become well established. It bears a round fruit, which somewhat resembles a small Plum in form. W. K.

THE KITCHEN GARDEN

NOTES ON VEGETABLES.

PLANTS IN BOXES.—It is now such general practice among amateurs to raise Peas in boxes with the object of securing early crops of superior varieties, and Onions to produce heavier bulbs, and incidentally to reduce the probabilities of serious losses from the devastations of the fly, that a special paragraph upon the subject is justifiable. Within the next fourteen days, there or thereabouts, according to the weather, all these plants will have to go out into their permanent positions, and it is imperative that they shall be subjected to systematic hardening in the meantime. Although naturally hardy enough, the treatment to which they have been subjected softens them, and to move them straight into the open without the slightest previous preparation is to court disaster. Give them all the air that is possible, and if it is inconvenient to have the lights always off on account of other occupants, stand the boxes of young plants out of doors where they will gain experience of the weather, but where they can be readily protected should the necessity for so doing arise.

PLANTING POTATOES.—Many sets will already have been placed in the ground; but unless the situation chosen is naturally favourable, little will have been gained by the haste. Properly-sprouted sets planted within the next week or so will easily overtake unprepared sets placed in position fourteen days earlier, and the prospects of cutting down by late frosts will have been reduced. However, there should be no further holding back, provided that the soil is in good condition and the weather permits of any working on the land. Drills are infinitely preferable to holes formed with a dibber; and if it can be made convenient to spread some smother refuse or wood-ashes in them before the planting is done, so much the better, as these things are very beneficial.

CARROTS AND PARSNIPS.—Friability of the soil is imperative to success in the culture of tap-rooted vegetables, and it is equally important that the quarter chosen shall have been heavily manured for the preceding crop, as this renders unnecessary the incorporation of any such material now. For Carrots the drills will range from 9 inches to 12 inches apart, according to the variety; while for Parsnips a distance of 15 inches should always be allowed to encourage proper development. In neither instance ought the seeds to be sown continuously, because the system is wasteful of seeds and involves needless labour in thinning. Clusters of three or four seeds dropped at intervals of 4 inches to 6 inches will ensure a perfect bed of Carrots and reduce the danger from the fly, since it is the exposed portion of the tender skin, and not the crown, that is pierced by the enemy prior to egg deposition. The very fact that fewer youngsters will have to be removed therefore reduces the danger. The Parsnips should be allowed 9 inches.

TOMATOES. Plants for outdoor fruiting should not be raised too early, as this increases the difficulties of keeping them dwarf and short-jointed. Seeds sown now in a greenhouse or gently-heated frame and grown steadily onwards without a check should give excellent plants in 5-inch or 6-inch pots for putting out of doors, either in the open or on walls, between the beginning and the middle of June. Never use a rich soil at any stage, and always make it a rule to mix with the compost a generous amount of wood-ashes. From the earliest stage onwards the plants must be rigidly limited to one main stem.

SEED-SOWING.—Within the next month all the green vegetables will be successionally sown in beds specially prepared for their reception. If these are not yet formed, put the task in hand immediately to allow time for sweetening and settlement. The site utilised the previous season must not be chosen, except under compulsion, and either refuse manure or flaky leaf-mould should be worked into the top 8 inches. Generally speaking, sowing is better done in drills than broadcast, as thinning out is much facilitated.

H. J.

THE FLOWER GARDEN

THE FASCINATION OF THE ANEMONE

(*Continued from page* 128.)

WHAT a happy man Mr. Allen must have been the day he first saw A. Alleni among his seedlings! It has all the good points of its parent Robinsoniana, and others added. It is larger in all its parts, but in well-balanced proportion, and the backs of the flowers are flushed with rosy purple and escape that dead coldness of the older form—they might be compared with the rose-tinted glories of snow mountains at sunset and the death pallor effect that follows when the light leaves them. The flowers are the largest among the Wood Anemones, and of a tender rosy mauve that is hard to describe. It might be matched in the Colour Chart, but one feels it should be translated into terms of soft feathery downiness—"burnished doves" or bullfinches' breasts, which, however, I will leave to poets to do.

I possess one other blue form, and that is valuable, as it flowers the latest of all and is of such waxen substance that in a shady corner it stands the warmer temperature and lasts long in flower, I think well into May. It is one of Mr. Allen's seedlings, and called Blue Bonnet. These seedlings seem to have good constitutions, and were it not that everyone who sees them longs for a little piece from the outlying portions of the clump, I believe they would soon spread into large patches.

When we turn to yellow Wood Anemones, we at once think of A. ranunculoides (the Buttercup Anemone), a distinct species; but it has a most interesting connecting link with A. nemorosa in the natural hybrid known as A. intermedia Winkl., and also as A. sulphurea Pritz. and A. ranunculoidi-nemorosa Kze. It is to be found growing, with its parents, in Silesia, Saxony, Baden and Alsace Lorraine. It is not a great beauty, as it is small, and the flowers are very thin in texture; but, apart from its interest, it is worth a tiny sunny corner, for it is always the first in flower of all the Wood Anemones, often in the latter part of February, and it continues pushing up its pale sulphur blossoms until others of the family are plentiful. The typical form of ranunculoides has small, round flowers; they are so cheery and bright in their buttercup yellow garb, and so well shown up by the bronzy green of their surrounding involucre, that a carpet of it is a very pretty sight, and it is quite a weed for spreading itself abroad in some parts of this garden. There is a larger-flowered form that is much handsomer, but so far has not developed the colonising character of the older form with me. I believe it is to be found in its more southern habitats, and to have been brought to our gardens chiefly from Italy. In Holland, I am told, only the small-flowered forms are found, but in two varieties so far as the colour of the foliage is concerned, a green and a bronze leaved form existing.

Then there is a very beautiful form known as ranunculoides var. pallida, with flowers as large as the Italian one, and of a charming primrose yellow. I have tried this in many situations, but have not yet induced it to be fruitful and multiply and replenish the earth. It increases, but very slowly, and does not keep together to form a good clump as I long to see it do. An interesting character of the ranunculoides forms is the habit of strong plants to throw up a second flower from the scape. When the first flower is in its prime, this second is but a tiny round bud, but replaces it when it fades, thus doubling the flowering period. The second bloom is generally smaller than the first. Mr. Van Tubergen has lately introduced a pretty semi-double form, var. flore pleno. Were it a little more double, it would look like a small Kerria japonica blossom, but when fully open it shows the stamens in the centre. It seems quite as vigorous as the wild type.

E. AUGUSTUS BOWLES

Myddelton House, Waltham Cross.

(*To be continued.*)



ANEMONE NEMOROSA BLUE BONNET.

AUDIT OF EXHIBITION SWEET PEA VARIETIES IN 1910

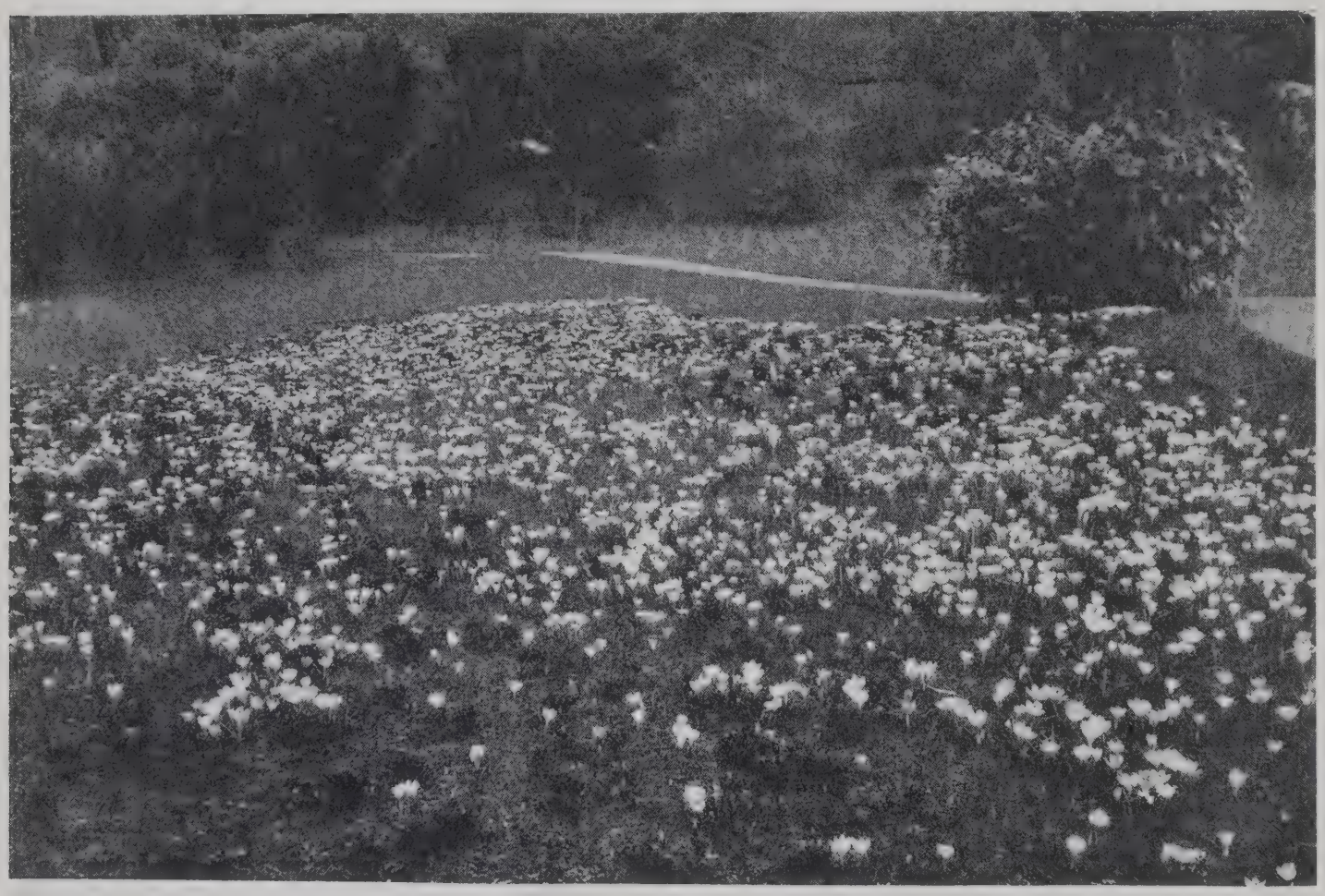
ALL the members of the National Sweet Pea Society have now received copies of the Annual for 1911, and no doubt, as usual, the audit of varieties shown at the 1910 exhibition has proved both interesting and instructive. This audit frequently attracts much attention in the Press; but there are one or two points which may be overlooked, and to which I venture to call attention. In the first place, it is apparent that for a variety to hold a high position in the list it is necessary for it not only to be of merit, but also to have no close rivals of the same shade of colour. Thus, Elsie Herbert stands higher than Mrs. C. W. Breadmore in the list of first-prize varieties, not because white-ground picotee-edged flowers are greater favourites than the cream grounds, but because in the case of the latter there is a split vote. Mrs. Breadmore's nine points and the five of Evelyn Hemus are more than the ten of Elsie Herbert and the two of Picotee. John Ingman's position of fifth in the first-prize list with ten points is quite misleading, for further down we find George Herbert with six points and Mrs. William King with one; and as the three varieties are identical, one is quite justified in adding the points together and giving John Ingman the premier position in the list with seventeen points.

Clara Curtis and Constance Oliver owe their high positions to the fact that no other varieties of similar shades are in the running; and the reason that no lavender variety is included in the first twelve is certainly not that this colour is not a great favourite, but that there are five serious claimants for the honour of being chosen by the exhibitor as his lavender variety. Prince Olaf and Helen Pierce are the two most prominent of the unwaved varieties, and although they do not stand very high, it is probable that they will not be seen so much in the future. Compared with recent years Helen Lewis shows a noticeable decline, which is only slightly accounted for by the rivalry of varieties of a somewhat similar colour. With Sunproof Crimson and Maud Holmes in general cultivation the crimsons should be better represented in the 1911 exhibition than in 1910. It may reasonably be anticipated that scarlet varieties will also show an improved representation.

Woodford G. J. [illegible]

CROCUSES IN THE GRASS AT BANGOR.

THE cultivation of Crocuses in grass has become exceedingly popular during recent years, and in many gardens now forms one of the most pleasing features during the spring months. The accompanying illustration, from a photograph kindly sent to us by Mrs. G. E. Davies, Ceris, Bangor, will give readers an idea of the beauty of these flowers when grown in this way. The garden at Ceris, where these Crocuses are growing, is close to the Menai Suspension Bridge. Mrs. Davies writes: "The Crocuses nearest the Menai Suspension Bridge were put in about six years ago, and I have been adding to them ever since. The yellow ones hardly show in the photograph, as they come out black, but the darkest purple Crocuses have been very fine. In the autumn they are covered with good leaf-soil, which they seem to like. I have not yet divided any of the clumps, but shall do so this autumn. Beyond the Crocuses I shall soon have the beautiful little Anemone apennina and the Pheasant's Eye Narcissus coming out in hundreds. Bulbs of every kind do well in our part; also in Anglesey where there is a bulb farm in connection with the Anglesey Welsh Industries."



CROCUSES IN THE GRASS AT CERIS, BANGOR, NORTH WALES.

IRIS PUMILA.

OF the many beautiful Irises that often find a home in the rock garden, the pumila varieties well deserve a word of praise, the lovely shades of colour harmonising beautifully with the weather-beaten rocks, and if large batches are planted of one colour this further enhances their beauty. Plant firmly and give an occasional dusting of soot, or slugs will soon make short work of them. There are about a dozen varieties catalogued, but the following will give a good range of colour: Alba, white, with a purple blotch on the falls; atropurpurea, purple; atroviolacea, violet; cærulea, pale blue; azurea, lavender; and lutea, yellow, tinged with purple.

Sopley. JAMES MURRAY.

THE ROSE GARDEN.

WILLIAM ALLEN RICHARDSON WITH PALE FLOWERS.

I WOULD advise all Rose-lovers who do not possess a copy of the National Rose Society's "Rose Annual for 1910" to procure one. The book is cheap at 2s. 6d., if only to read the delightful article on Rose William Allen Richardson by the well-known essayist, E. V. Lucas. These racy notes bring to mind some of the writer's own upon Roses of bygone days. It is not my concern just now whether William Allen Richardson was an American or an Englishman; but Mr. Lucas places it on record that the Rose was a sport obtained by Mme. Ducher from a pale yellow-coloured variety sent to her by Mr. Richardson, who resided near Louisville. If we may accept this statement—and it appears to be beyond question—then would not this in some degree account for the tendency of the Rose to produce pale-coloured flowers? All who have grown William Allen Richardson know full well of this great fault of an otherwise lovely variety, and many opinions have been expressed as to its cause. I am persuaded we are still much in ignorance regarding the influence of climatic and other conditions controlling colour in flowers, and it is a subject full of interest and one which at this season of the year could be profitably ventilated. My experience of W. A. Richardson under glass has proved that there is more in temperature in relation to colour than is commonly supposed. In a fair heat I have never had this Rose produce pale-coloured buds, whereas in a cold house, where growth was slow, many whitish buds appeared.

Out of doors we too often find that on a warm, sunny wall the early blooms of W. A. Richardson come a pale colour, but out in the open on cut-back standards the colour is invariably good. How can this be explained? My belief is that proper root feeding will, to a large extent, help the colour and enable us to have those glorious golden orange buds that are the chief attraction of this favourite Rose. Soon after buds are seen liquid manure should be freely given, for this purpose nothing excels liquid cow-manure, and to wall plants a double dose; in fact, all wall Roses need special feeding during the period of active growth if we are to obtain the best results from them.

Personally, I should much like to hear the opinion of some of our noted growers regarding this colour problem, not only with W. A. Richardson, but with the Lyon Rose and some others. As regards the latter, I cut from a shot-out bud of a standard budded last summer a bloom whose colour was simply marvellous, far surpassing any I had obtained from the maiden plants. I believe it is the opinion of Mr. George Prince, who has exhibited Lyon Rose very successfully, that the best-coloured blooms come from plants on a sandy or gravelly soil. If so, we shall all want to have a bed of such soil, if only to obtain the glorious colour this Rose is capable of yielding. P.

GREENHOUSE.

MIGNONETTE IN POTS, BOXES AND BORDERS.

TO grow Mignonette in the ordinary way is really not a difficult matter, but it is not at all easy to cultivate big plants that will bear very large spikes of blossoms. An ordinary bed of Mignonette always attracts attention, and is generally much appreciated; but highly-cultivated plants form a very distinct feature in any greenhouse or garden. The seeds are small, comparatively cheap, and germinate quickly; consequently, many cultivators make the mistake—a very common one—of sowing too thickly.

I daresay many readers of THE GARDEN have noticed in their borders bare patches here and there in the large clumps of Mignonette. Now some growers sow the seeds thickly in consequence, so as to have plenty of plants and thus avoid such bare patches. The latter are not, however, the result of thin sowing, but of the ravages of wireworm. The pest referred to is very fond of Mignonette plants and destroys them wholesale; therefore, to avoid disappointment, intending cultivators must be sure that the soil in the beds and the composts for pot and box culture are quite free from wireworm before any seeds are sown, as it is not possible to protect the plants fully afterwards.

To be successful with the cultivation of Mignonette in pots it is necessary to provide a good substantial compost: Loam, two-thirds; leaf-soil, one-third; with a peck of well-rotted manure and an 8-inch potful of coarse sand to four pecks of the loam and leaf-soil. Avoid using comparatively new loam. That which has been cut and stacked for six months is the best, and the leaf-soil must be half-decayed and rubbed through a 1-inch mesh sieve. At this season of the year it is not necessary to sow the seeds in small pots and, eventually, repot the resultant plants in larger ones. Select 6-inch pots, put in some clean crocks, then a few leaves not too much decayed, finally filling the pot to within 1 inch of the rim. Sow about six seeds 1 inch apart and cover them

with a little fine soil. The soil in the pots should be watered before the seeds are sown, but not immediately after the seeds have been covered. Place the pots in a frame or on a stage in a warm greenhouse, and syringe both pots and soil occasionally. When the seedlings appear, thin out all but the three strongest in each pot, and keep the young plants near the glass and where plenty of air can reach them. Pinch off the point of each plant when it is about 3 inches high. Three side shoots on each plant must then be retained; thus the full complement of spikes of bloom in each pot will be nine. Careful watering, neat staking and, in due course, judicious feeding will tend to the production of grand pots of fragrant Mignonette for the furnishing of the greenhouse or the dwelling-room window.

Practically the same cultural details must be followed when planting in boxes as advised in the case of plants grown in pots; only it would be advisable to sow the seeds later—towards the end of April — and to allow more side shoots to grow on each plant. In this case it is more satisfactory to have ten plants in a window-box 3 feet long than twenty.

In garden borders the soil must be deeply dug several weeks prior to the sowing of the seeds. Deeply-tilled soil is a great advantage, as finer plants are secured, and they last longer in a good flowering condition than is the case when the soil is only surface dug. Sow the first batch of seeds at the end of April, and the second late in May. Thin out the seedlings to 7 inches apart; then those left will branch out and completely cover the soil. Firm soil is essential to success. Avon.

LACHENALIA NELSONII.

In my article in The Garden of September last year I said that I had been very unsuccessful in my endeavours to get a good photograph of a pot of Lachenalias. At last I have done so, and the picture gives a very good idea of what they are like, and, still further, illustrates their adaptability for pot culture. L. Nelsonii, which is the particular variety shown, is exceedingly effective for indoor decoration. It has good, broad, healthy-looking foliage, with graceful spikes of deep yellow flowers, in which the perianth segments are just tipped with green. They revel in a rich, light, porous soil. After flowering, they require very cool greenhouse treatment with occasional waterings, and in early May place them in a cold frame where they may be fully exposed to the sun. At the moment of writing I am revelling in my collection of Mr. F. D. Moore's hybrids. Many of them are so very much alike that they are not all wanted, and no doubt the poorer of the most similar ones will drop out. In addition to the varieties that I noted in my article, I would now add as my "latest results" Rose Barton, an early deep rich yellow, and W. E. Gumbleton, a later flower of quite a ruddy shade of yellow. The day of the Lachenalia has not yet come, but come it will when its simple quiet beauty and its usefulness are better known. Joseph Jacob.

DAFFODIL NOTES.

A DAFFODIL DITCH.—Even gardening, even the long-drawn-out excitement of raising seedling Daffodils, does not altogether keep us young in body. Alas! at some time or another, sooner or later in different individuals, we all get a touch of "Anno Domini" and it never leaves us. Resourceful people probably feel it less than others. Occupation and alleviation do so much to palliate the attack that one hopes that it is with them almost as if it were not. Generally speaking, if I were to remark to a mutual friend, "Oh! Adams is in the ditch," he would think I meant what I would have done if I had said it of ninety-nine out of a hundred people. But he would be wrong. Adams's ditch is not one of that sort. So far from wanting his friends to rally round him and help him out, it is exactly the opposite. In the month of April he would very probably rather be in his ditch than anywhere else, just as in September he thinks a good field of Turnips one of the nicest places in the world. There is no mystery about this strange-sounding liking of his when we realise, as we can do very well from his portrait on the next page, what he is doing there. It will be seen he is hard at it, hybridising. He measured himself for the ditch before he made it, so he has got it the right height and the right width; and as he was careful to put it in a part of his garden where it can easily be made longer if wanted, he has also got it the right length. The two "tips" to note are (1) that the seedlings are first sown and then brought up in boxes, afterwards being planted out in rows on the top of each side; and (2) that the soil is kept up by lining the banks with small-meshed wire-netting. Of course, to be really "comfy" both height and width must vary according to the size and stature of the user. Falstaff and Tom Thumb would not both be happy in the same ditch! All joking apart, Adams's ditch might be a distinctly useful institution for more people than himself.



THE GOLDEN-FLOWERED CAPE COWSLIP: LACHENALIA NELSONII.

Daffodils at the Royal Horticultural Society's Spring Bulb Show.

As I write the great show is just over. To give readers an idea of how successful it has been, late in the afternoon of the second day I ran into a Councilman who had come to see for himself if it would be likely to be a wise move to make more of the spring exhibitions into two-day affairs, and I am fairly certain from his observations then, coupled with experience of the opening day, that he went home having decided in his own mind that it was. Certainly the magnificence and variety of the exhibits were worthy of being on view two days. Daffodils were quite on a par with other things. There was no "gold" given, no silver-gilt Flora; but this is not saying that they were under the standard of other years. Taking the eight groups together, there was a wonderful advance both in the quality of the flowers themselves and in the way each group was "put up." There was a smartness which it was very pleasing to see, and which I hope will always be maintained and more often than not excelled. The awards given by the Narcissus committee were as follows: Silver-gilt Banksian medal, Messrs. Cartwright and Goodwin; silver Flora medals, Messrs. Barr and Sons and Mr. C. Bourne, Simpson, Bletchley; silver Banksian medals, Messrs. Bath, Limited, Wisbech, and Messrs. J. R. Pearson and Sons; bronze Flora medal, Messrs. R. Sydenham, Limited; and for Tulips a silver-gilt Banksian medal was given to Messrs. R. and G. Cuthbert.

Space prevents me from dealing with all the good things in one account, so I have the Editor's permission to divide my remarks, and those groups that I do not deal with now will form my text next week. I write from memory, but I think for the third year running Messrs. Cartwright and Goodwin have gained the highest award at this particular show. There is no getting away from the fact that their original form of staging is very effective and sets off flowers to the best advantage.

Instead of being built up on the usual straight lines, it is slightly curved, and as a lady who went round the show with me remarked, it just took off the stiffness that so often seems unavoidable in the usual type.

It was a happy thought, too, to put a few large pots of Daffodils at either end, for they made an excellent finish, and also to introduce a few pots of blue Grape Hyacinths at the bottom of the staging as a foil to the yellows and whites of the blooms above. A little detail worth noticing is the useful and up-to-date-looking celluloid labels which I have never seen used before. They will wash, are said to be everlasting, and, what is good from the public's point of view, they are very legible. Passing now from the general to the individual, one of the most striking flowers was Trojan Boy, a giant Leedsii, with a wide-mouthed pale citron-coloured cup 1½ inches in diameter and a starry white perianth just 4 inches across. Perianth and cup suited one another, and the result was a well-balanced flower, "even and not stiff."

Another fine thing was Matthew Arnold. It is one of the new round type of Poets, with wide, overlapping, short-looking segments and a kind of ornatus eye. The three interior segments keep on the same plane as the eye, while the exterior reflex. There are a good many flowers of this build now on the market, such as Lullaby and Minerva, and they are a welcome change from existing varieties.

Mervyn, which behaved so curiously two years ago, was shown in excellent condition. It is a very good five-shilling trumpet, useful both for the garden and for showing. My experience is that it is going to do well now it has settled down in my garden, and I hope the scare we all had will soon be forgotten.

Southern Star was again to the fore. All that I wrote about it last year (March 19th, 1910) I can endorse now. It is a very beautiful flower with its brilliant red-edged cup. Armorel in the top row was decidedly effective, and with Weardale Perfection might be bracketed as being exceptionally well shown. The pointed-petalled Scarlet Eye, the small, taking red-cupped Robert Browning, the old, but still good Crown Prince, the newer Castile and the refined and graceful Long Tom were others to be noticed. This last variety has a slightly drooping habit, with a rather narrow and long cup and a white, slightly-hooded perianth. With the mention of the rich-coloured and massive yellow trumpet Mrs. H. J. Veitch and two charming bunches of triandrus hybrids I must close. These Snowdrop-looking, drooping white flowers should be raised by everyone. They are everyone's favourites, and there is not much difficulty in producing them.

JOSEPH JACOB.

THE TOWN GARDEN.

SWEET VIOLETS.—No fragrant hardy flower of the year is more prized than the Sweet Violet, and none more easily grown by those who still incline to cultivate these precious flowers on rational lines. This is, naturally, a more or less direct inference that some prefer an entirely opposite way, and I imagine there are no two opinions on the matter. By "rational lines" I mean the cultivation of the plant in the most natural way as opposed to a system which is not so, inasmuch as the latter not infrequently includes gorging the plants with manures, organic and inorganic. The end of such a proceeding is a more or less fat, inflated tissue, a plant unmistakably predisposed to disease, and one which, having taken it, keeps and retains it in its stems and leaves, transmits it to its progeny, and so increases and multiplies it that eventually the only fit place for the plants is the rubbish fire-heap. Let it not be the rubbish-heap alone, since that will but increase the evil; rather let the fire play its part in stamping out, so far as is possible, a disease all too prevalent in gardens to-day.



A DAFFODIL DITCH AT PENDEFORD HALL, WOLVERHAMPTON, THE RESIDENCE OF C. L. ADAMS, ESQ.

THE VALUE OF CLEAN STOCK.—This is of the first importance, and one cannot do better than suggest the purchasing of plants from a specialist who really understands the cultivation of the flower and grows it both rationally and well. No other plant probably enters the editorial department of a gardening newspaper with greater regularity or more frequently than the Sweet Violet, and all too often in the worst stages of disease. That the senders of these examples do not recognise in the seared or scalded-looking leaves a disease of the worst type—disfiguring, weakening and infectious—I have every reason to know; nor do they know that such disease is calculated to remain with them unless stringent measures are taken to eradicate it. Very frequently its presence is attributed to manure and manure-water, and the former certainly may have done more than is usually imagined.

MANURES AND THEIR EXCESSIVE USE.—Heavy dressings of manure to a soil already rich in vegetable matter and humus are bad for Violets, and a free dressing of soot or lime would be of far greater value. Then, again, the conditions favoured by many for wintering the Sweet Violet are found in the manure-frame, where the root-fibres are in immediate and constant touch with a manure-heap, and where grossness of growth, rank leafage, few flowers and a plenitude of disease are the more conspicuous features.

THE MORE RATIONAL WAY.—Fresh soil, a new position, avoiding the excessive use of manures, or giving preference to a plot of ground manured for a crop of a previous season's growth—these, with clean, healthy young plants, are among the essentials to success. Firm soil, too, is most important, both in the winter frame and in the open ground; for a soil that is loose about the roots of the plants is not calculated to promote successful growth. I have heard of a signal success following the arranging of the plants for winter work on a hard bottom of coal-ashes with old potting soil tightly wedged between the clumps, and, being in such direct opposition to the manure-bed treatment, it is given for what it is worth.

THE BEST PLANTS.—The best plants to start with are freshly-rooted and unflowered runners; in short, the youthful example as opposed to the one which is more or less exhausted by the stress and flowering of a season's work. In size these do not compare favourably with the big pieces from divided clumps, and may, indeed, disappoint the lover of big things. The young plant, however, is bound to win, and, rightly managed, will have put the older example in the shade before many weeks have passed.

WHEN TO PLANT.—A showery day in the month of April cannot be improved upon for this work, and the position if slightly shaded naturally will be all the better. Always plant with fork or trowel, so that the root-fibres have the opportunity of ramifying at once. Planting such things as Violets with the aid of a dibber is not favoured.

S. N. N.

GARDENING FOR BEGINNERS.

HOW TO PLANT ASPARAGUS.

So many amateur gardeners seem to think that the edible Asparagus is a plant difficult to cultivate. Such, however, is not the case. It may be that there are would-be growers who feel they cannot wait so long as two to three years before the gathering of the crop should commence. But even the duration of the suspense cannot be considered long when one remembers the life of the beds. Properly-prepared and carefully-managed beds of edible Asparagus will continue to yield a satisfactory crop for fully twenty years. There are gardens in which the plants have continued in bearing for over thirty years, but this is very exceptional. Fifteen years is a good average duration for a bed well cared for, and surely that is a more than adequate return for a period of waiting two or three years subsequent to the preparation of the beds. Although the Asparagus will succeed in almost any soil, it cannot be denied that the plant has a partiality for a deep, sandy loam. Good results may be obtained by treating less satisfactory soils to a thorough system of deep culture. The best time to deal with the soil is the autumn, and any well-drained soil of a loamy character should then be trenched three spits deep, placing a heavy layer of cow-manure, or, failing this, pig-manure, on each spit as it is turned over. Heavy soils need to be dealt with in somewhat different fashion. Where the subsoil is of a clayey description, trench the quarters 3 feet deep, working in the two lower spits a heavy dressing of fresh horse-manure, old mortar rubbish, coarse road grit and burnt vegetable refuse; in fact, anything that will break up the soil and render it friable. Decayed manure, old mortar rubbish, leaf-mould and other lightening material may be added to the top spit with advantage, and the surface soil should always be left in a rough condition for the weather and frosts to pulverise and sweeten.



1.—ASPARAGUS CROWN WITH ROOTS SPREAD OUT EVENLY.

The beds may vary in size. In some gardens they are made 3 feet or 4 feet wide, and in others beds 5 feet in width are preferred. In the 3-feet beds two rows are usually planted, while in those 4 feet or 5 feet across three rows of Asparagus crowns are planted out. The planting of crowns is the only method considered in these notes, and these crowns may be obtained from any nurseryman or seedsman quite easily at this period. Strong plants can be obtained from 3s. 6d. to 5s. per 100, and extra strong plants for forcing at about 15s. per 100, so that they cannot be considered expensive. Between the beds, no matter what their width may be, alleys should be cut 2 feet wide; this will allow ample room in which to move about without treading on the edge of the beds.

Planting should be done in the earlier half of April, preferably during the first week. The beds should be forked over, and the surface soil broken up and rendered friable. Assuming the beds are to be 5 feet wide, see that these are properly marked out and an Oak post placed at each corner. Proceed then to mark off a row down the centre of the bed, and on each side of this, 18 inches removed, mark off one other row; this will leave a margin on both sides of the bed of 12 inches. Should the bed be only 4 feet in width, mark off one row down the centre, and the row on either side should be marked off 10 inches from the edge of the bed.

Planting should be carefully done. Most successful growers prefer to make ridges where the lines are drawn, these ridges being formed 3 inches to 4 inches lower than the proposed level of the bed. The long roots of the crown can then be spread out and adjusted in position so much more satisfactorily. That the beginner may better understand how this is done, in Fig. 1 an individual plant arranged in this manner is shown. The roots should be covered as soon as possible, as they are very sensitive to dryness. Should the crowns be dry when received from the nurseryman, soak them for a few hours in water. Observe the method of planting advocated above, and dispose the crowns as portrayed in Fig. 2, adjusting them 15 inches apart in the rows. Spread out the roots carefully, arrange the crowns so that they alternate in the rows, and cover with soil at once. When the bed is completed, the crowns should be covered with at least 4 inches of soil. The soil from the alleys may provide additional covering. Plant on the ordinary level of the garden when the soil is well drained and of a light character. Beds where the soil is of a heavy, retentive nature should be raised 10 inches previous to planting. Always finish off the surface soil neatly. D. B. Crane.

PLANTING OUT PEAS FROM POTS.

There is a certain fascination about the raising of culinary Peas in flower-pots and then planting them in the garden In some circumstances there is a decided advantage, too, in following this method of raising early plants; it applies mainly in cases where the natural soil of the garden is cold and clayey. Plants raised in pots can be nursed, and eventually planted out when the garden soil has become warmer and been well prepared for them. This favourable time will be at the end of March or during the first half of April. I have seen, however, sad results follow the raising of Peas in the way referred to. The plants were confined too much in frames—consequently, they were much drawn up and weakened—and then suddenly transferred to the kitchen garden. Now, the best course to follow is to take every opportunity of hardening—fully exposing—the plants in the pots whenever the weather is suitable, so that the change shall not check their growth. Immediately they are planted out thinly in the shallow trenches draw up some soil to them and put in the sticks; if not the tall ones, at least the small branches. Then some protection will be afforded and the plants will grow steadily without a check. Shamrock.

SOME GOOD VERONICAS.

The Veronicas form an extremely interesting class of plants, and are growing in favour for the flower garden now that their merits are more generally recognised. There is certainly no great variety of colour, for, with the exception of pectinata rosea and spicata rosea, white and various shades of blue are alone represented, although it must be conceded that there are many different blues; but they vary greatly in height and habit, from the tiny pectinata and rupestris to the large bushes of Traversii and virginica. The willowy foliage of the latter makes it a very graceful shrub. The bright variegation and excellent growth of Andersonii variegata render it suitable for growing into shapely plants to associate with bright, free Pelargoniums like Paul Crampel, King of Denmark and James T. Hamilton, and the silvery foliage of incana forms an admirable carpet to plants like the herbaceous Lobelias. One of the best for the general border is subsessilis, which has large deep spikes of rich purple or purple-blue flowers; a fine plant which should find a place in all borders. Given liberal treatment, the spikes are extra fine and the colour more intense. Seen from a distance it reminds one of a dwarf form of the newer Buddleias. Spicata and its white and pink forms ar fairly common in gardens. E. Burrell.



2.—A BED 5 FEET WIDE SHOULD ACCOMMODATE THREE ROW

THE FRUIT GARDEN.

COBNUTS, FILBERTS, WALNUTS AND CHESTNUTS.

IT is strange that the cultivation of Cobnuts and Filberts is so seldom undertaken by amateurs; the bushes are easily managed, will thrive in almost any soil that is well drained, and the Nuts are always welcome in the home, or, if it is desired to sell them, they usually meet with a good demand. For home use the Filberts are preferable, because, although smaller than Cobnuts, they are vastly superior in flavour.

For the benefit of the novice it may be well to describe the difference between the two. In Filberts the husk completely envelops the Nut, finishing to a more or less tapering point. In Cobnuts the upper end of the husk is partly open, so that part of the Nut is exposed to view. The cultivation of both is the same. Where it is only desired to grow one or two bushes to provide home supplies, these may well be planted in any odd corner or out-of-the-way position, providing it is fairly open and the soil is well drained, taking care to dig it thoroughly first.

The pruning of Nuts is an important item in their successful cultivation, and one that is really better neglected altogether than carried to the other extreme. The flowers are of two sexes, *i.e.*, the male flowers, produced in catkins, and the female flowers, tiny, ruby-coloured specks that usually escape the eyes of all but the keenest observers. Both are borne on the thin, twiggy shoots which most Nut bushes produce in abundance, and as many of these thin twigs should be retained as can be comfortably accommodated without overcrowding. The pruning, then, of established specimens will really consist of an annual thinning, removing sufficient of the oldest wood to allow that which is left ample space. This thinning is best deferred until April, as by that time fertilisation of the minute female flowers will have been accomplished. The Kent trade growers have a system of spurring back the side branches, so that the main stems of the cup-shaped bushes are clothed with slender, Nut-bearing twigs. If the Nuts are to keep plump until Christmas or after, it is most essential that they be thoroughly ripe before they are gathered. We used to gather the Filberts by shaking them from the bushes on to cloths spread beneath; only those which are thoroughly matured will fall, and as the husks are closed at the tops the Nuts do not fall out. Cobnuts, where it is desired to retain the husks, must be picked; shaking causes them to fall out. Good varieties of Filberts are the White or Kentish and Prolific; Cobnuts, Duke of Edinburgh, Kentish Cob and Cosford Cob.

The Walnut is a well-known tree in this country, though it is not often that one sees young specimens being planted. This is a mistake, because, although they do not bear fruit until they have attained a good age, we should think of future generations. A few nurserymen make a speciality of growing young trees suitable for planting in orchards, and one or two ought to be found room for when fruit plantations are being made. They will thrive in almost any kind of soil. In addition to the ripe fruits being valuable during the winter, the green ones, picked in summer before the hard shell is formed, are largely used for pickling. Two varieties are usually grown in this country, the large, so-called French Walnut and the smaller English Walnut, the latter possessing the best flavour. In some country districts I have known the cottagers to use the green shells, or husks of the fruit, for making a sort of catsup.

The Sweet Chestnut is principally grown in this country as an ornamental tree, and cannot be relied upon to mature its fruits. In some districts, notably at Kew, the fruits do reach maturity, and are eagerly sought after by boys. As a fruit crop, however, the Sweet Chestnut in this country is not worth bothering about. H.

NURSERY NOTES.

CHINESE PRIMULAS AND CYCLAMEN AT READING.

IN these days, when outdoor gardening is so much to the fore, the many beautiful flowering greenhouse plants which our forefathers thought so highly of scarcely receive their full meed of praise and attention. Undoubtedly two of the most popular in years gone by were the Chinese Primulas and Cyclamen; and considering how much these have been improved since the time when they were to be found in every garden worthy of the name, it is not surprising to find that they are rapidly regaining their erstwhile popularity. Delightful as outdoor gardening is at most seasons of the year, its most uninteresting period is undoubtedly the first six or eight weeks of the year, and then it is that we turn to our conservatories for flowers which have become an almost integral part of our everyday life.

It is just at the season named that the Chinese Primulas and Cyclamen can be had at their best, a fact that we were reminded of when visiting Messrs. Sutton and Sons' trial grounds at Reading during February last. A cold, bleak day, with desolation reigning supreme over the country at large, we were suddenly transported into a land of life and beauty, exemplified by range after range of glass houses filled with flowering plants of Primulas and Cyclamen, the parents of that vast army of plants which will be delighting Messrs. Sutton's customers in years to come.

The wonderful diversity of form and colour to be found in the Primulas is almost incredible, and speaks volumes for the care and patience which have been bestowed upon the race for generations past. From deep blue, through crimson, salmon, pink to white the colours run, and there is an even greater range of habit and form, from the large, fringed flowers of the giant section to the more dainty and smaller blossoms of the stellata or star type, to say nothing of the double-flowered varieties and those with Ivy, Fern and palmate leaves. It is this wide range of types and colours which renders the Chinese Primula so much more interesting now than it was in years gone by, and is, no doubt, responsible for the extended culture that the plants now receive.

We have on previous occasions referred in detail to the Reading Primulas, and it will now suffice if we name a few that specially appealed to us either on account of their colour, pleasing habit, or a combination of both. Undoubtedly the most beautiful of all is The Duchess, a large, white flower, with a prominent rosy carmine zone round the eye. Messrs. Sutton also have a number of beautiful hybrids derived from The Duchess, the colours varying from crimson to white, all having the characteristic and beautiful zone round the eye. Pearl is a large-flowered white variety, and has been a great favourite for many years owing to its robust habit, purity of blossoms and freedom of flowering.

In Reading Blue and The Czar we find two large-flowered blue Primulas, the first-named being almost Cambridge blue and the latter much darker. Improved Reading Scarlet, Reading Pink, Coral Pink and Crimson King are other large-flowered single Primulas, the colour of which is described by their names. Crimson King is superb when seen in winter sunshine, the depth of warm colour being then fully revealed.

The double varieties grown by Messrs. Sutton would greatly surprise those who only know double Primulas by the old double white. At Reading we saw the double form of The Duchess, already referred to. It is exceedingly handsome, the rosy carmine zone at the bases of the petals forming a sort of eye to the flower. Improved Double Scarlet, Double Blue, Double Salmon Pink and Carnation-flaked are others of this section that call for special comment.

Having briefly reviewed the large-flowering Primulas, what shall we say of the more graceful and free-flowering stellata type? It is difficult to understand why these are not grown far more extensively than is the case at present. Practically all the colour shades found in the larger-flowered sorts are to be had in the Star Primulas, and, in addition, we get pyramids of dainty blossoms, which are frequently enhanced by the deep crimson of the stems. White Queen Star, Light and Dark Blue, Ruby, Carmine and Carnation-flaked, as well as the beautiful salmon pink Lord Roberts, are Star Primulas that deserve a place in every garden.

Great as the improvements in Primulas have been during recent years, the Cyclamen have not been overlooked, and among these Messrs. Sutton are continually effecting improvements and creating diversities. The type that pleased us most at Reading was the sweet-scented one, which reminded us of the old forms of Cyclamen persicum that were valued as much for their fragrance as for the chastity of the blossoms. It will be good news to many that Messrs. Sutton are evolving a sweet-scented race with flowers almost as large as the modern scentless varieties, and with an almost equally wide range of colours. There should be a great future in store for these large-flowered, fragrant Cyclamen. The frilled or fimbriated type is also being considerably improved at Reading, and we may confidently expect to see before long frilled flowers with the same graceful poise that is found in the more normal types, of which Giant Salmon Pink, Giant White, Giant Crimson, White Butterfly and Vulcan are some of the best.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY, MARCH 14.

ADIANTUM GLOIRE VAN MOORDRECHT.—This handsome novelty was recently fully described and illustrated in THE GARDEN (see March 4, page 106) that we refer our readers thereto for fuller details. We have now the pleasure of stating that the original award of merit has been advanced to a first-class certificate. Exhibited by Mr. Fabius, Emsworth.

Hippeastrum Queen Mary.—A handsome pure white variety, from which in large degree the green colouring at the base of the perianth has been eliminated. Exhibited by Messrs. Ker and Sons, Liverpool. Award of merit.

Saxifraga Petrachi.—A beautiful and free-flowering member of the encrusted section of the genus. The new-comer is said to be a species from the Transylvanian Alps, though there are not wanting signs of its hybrid origin. The flowers are of snowy whiteness, and in this respect equal to the recently-certificated S. bursiculata. It is presumably a month later in flowering than that fine plant. The 3-inch-high peduncles are one or two flowered and greenish, the silvery grey of the rosettes adding to the beauty of the plant. Exhibited by Sir Everard Hambro, K.C.V.O., Hayes, Kent. Award of merit.

Tulip Yellow Murillo.—A good double-flowering variety of a clear buttercup yellow colour. It is well adapted for early forcing. Shown by Mr. W. Profittlich, 19, Clifden Road, Twickenham. Award of merit.

Odontoglossum Jeanette.—A very handsome and deep-coloured variety shown by Messrs. Charlesworth and Co., Haywards Heath. It was raised by crossing O. Rossii rubescens with O. amabile. The offspring possesses good points of both parents. First-class certificate.

An award of merit was granted to each of the following :

Cymbidium gottianum.—There was nothing particularly striking about this hybrid. The flowers were of medium size, of an ivory colour, tinged down the midrib with pale green. The lip is of a deeper hue. Parentage : C. eburneum × C. Sanderi. Shown by Messrs. Sander and Sons, St. Albans, Herts.

Cymbidium Alexanderi.—This is the third Cymbidium hybrid to receive an award within the last two meetings. It has a pleasing flower of a mauve tint. The lip is spotted and blotched with crimson. Parentage : C. eburneo-lowianum × C. insigne. Shown by Lieutenant-Colonel Sir George Holford, Tetbury, Gloucestershire.

Lælio-Cattleya dominiana Monkend.—A really good Lælio-Cattleya with a large flower of superb form. The lip, which is well developed, is of a deep plum colour. The perianth is bright rosy purple. It was shown by H. A. Inness, Esq., Croft Spa, Yorks.

Odontoglossum Mirum Bruggense.—As mentioned in our last issue, this is a remarkably fine Odontoglossum. In texture, size and form it leaves nothing to be desired. The broad petals are of a deep bronzy red, edged white. Parentage : O. crispum × O. wilckeanum. Shown by Messrs. Sander and Sons, St. Albans.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Violets (*H. B. L.*).—Much the best way of perpetuating the Sweet Violet is by way of runners, *i.e.*, the non-flowering side shoots that occur in abundance about the base of the plants. These runners, however, should have been inserted as cuttings in October or November last, and have been accorded cold frame treatment since that time. Incidentally, also, the above is the best means of perpetuating the fullest vigour of the plant, since the flowering plants are not infrequently exhausted when their season of work is at an end. What you at present appear desirous of knowing is how to preserve the plants, and there is no better way than by planting them at the base of a sheltering fence or wall, in such a way that you could, by placing laths in position, fix a mat or some canvas thereon to keep off frost and the worst biting winds. If you could do this, lifting the plants with a large ball of earth and having the new trench in readiness, it would be far better than potting. Make the plants in their new quarters quite firm by treading around them, and when all are arranged give a good watering during the early part of a bright or warm day.

Pruning Hydrangea hortensis (*Nunnery*).—If the plant is strong, so that you may reasonably expect the buds to contain flowers in embryo, it should not be cut back ; but if the buds are weak, with little or no likelihood of their producing shoots sufficiently strong to flower, it may be an advantage to cut the plant back to the strongest buds available.

Primroses eaten (*M. R.*).—From the withered state of the flowers when received it was not possible to say with certainty at first sight ; but examined subsequently by the aid of a magnifying-glass, the cause of the attack appears to be the caterpillar. The only way is to set traps of fresh Lettuce leaves, and catch and kill the pest by hand.

Growing Violets (*Robert*).—The Violets bear all the signs of having been grown in too close a place, and to that must be attributed the death of the leaves. The only fungus present is one that is very common indeed upon dead foliage. Violets must always be given good ventilation (free circulation of air) whenever the weather is suitable, and it must be recognised in their cultivation that they are perfectly hardy plants.

Iris stylosa dying (*M. E. D.*).—The Irises are attacked by the disease called Iris rot, due to a bacteria which is apparently usually distributed by biting insects. The infection in this case seems to have been through the foliage first. It would be well to cut away the diseased parts of the plants, especially removing any that show the rot in the rhizome. Give the plants a dressing of superphosphate, forking it in lightly about them, removing the soil and adding fresh in which superphosphate has been mixed.

Blue Marguerite (*S. P. W.*).—If neither Arctotis grandis nor Agathæa cœlestis is meant, the only other plant we can suggest is Erigeron speciosus or Aster subcæruleus, but neither of these is blue-eyed. In each case the disc is yellow, and most pronounced in the last-named. A point of importance is whether this supposed blue Marguerite is a hardy perennial border plant, an annual, or what ? If information on these points were forthcoming, also the time of flowering and the like, some light may yet be thrown on the subject.

Gladioli (*E. E. J.*).—We should not recommend the starting of these in boxes and transplanting them, as a serious check might result. The growths, too, might be greatly weakened by undue warmth. If in your district cold and late springs are experienced, you might pot the roots without delay and give them frame treatment secure from frost, planting them out in rich, well-prepared ground some time during April. If your soil is quite good and not wireworm infested, you might plant at this season in the open, placing the bulbs 3 inches below the surface.

Exhibiting Daffodils (*Tyro*).—The class is rather loosely worded, and a condition requiring not less than three nor more than five stems of a variety is the more general rule. As the schedule now stands, an exhibitor may show one flower or a dozen of each, unless there is a limiting clause in the conditions elsewhere. In all the circumstances we should be inclined to work for uniformity, three, four, or five flowers throughout. Even here single blooms of choicer kinds would probably carry greater weight with the judges. The wording is unsatisfactory, and all exhibitors should be on an equal footing as regards the number of flowers. The committee obviously expect several flowers, as one could hardly arrange "tastefully" single specimen blooms.

Plants for shallow vases (*R. S.*).—The conditions must be very unfavourable for all kinds of plants if the dwarf Nasturtiums will not succeed in the vases. In very hot and dry situations where such subjects as Ivy-leaved Pelargoniums, Fuchsias and similar things would not thrive, we have in several instances recommended the Nasturtium, and it has in most cases given satisfaction. We know, however, of a vase in a particularly roasted-up locality in which practically everything was tried. It was planted last year with the dark-coloured form of Sedum spectabile, known as atropurpurea, which gave great satisfaction. True, it does not flower till the latter part of August ; but the foliage is bright and cheerful throughout the summer, hot suns and drying winds having no effect upon it. You might try the smaller-flowered single Petunias, as they stand pretty well under such conditions.

Autumn Crocuses (*S. M. V.*).—Crocus speciosus should be planted at the end of July or early in August. The grass might be cut in advance of planting, and stopped as soon as the growth of the Crocus appears. The plant usually flowers in September, though freshly-planted bulbs may be later than established ones. Scilla campanulata maxima is one of the best, and because of its vigour of growth should be kept quite free of the Daffodils. The Scilla bulbs should be 12 inches or 15 inches away from the Daffodils. We presume the double Daffodil mentioned is the old yellow Van Sion (*N. Telamonius plenus*), and any nurseryman would understand this. Princeps, Queen of Spain, obvallaris and the endless variety of single Narcissus incomparabilis are all good for grass, and are very hardy. Iris pallida should be planted at once. The others you name should be planted in August, though the Bluebells may be planted later on if more convenient.

Drop plants for Begonia beds (*H. H.*).—Well-furnished specimens of Grevillea robusta or Acacia lophantha are good drop plants for Begonias. They, however, depend for their beauty upon the foliage alone. Of flowering plants Fuchsias are very suitable, as their requirements are almost identical with those of the Begonias.

Bulbs after flowering (*T. R.*).—Encourage the whole of the bulbs to make the best growth possible, and retain the foliage as long as you can ; then dry them off gradually. Irises alata and Pavonia should be dried for a long time ; Babiana and Ixia, too. The Cyclamen should not be dried off, and the pans might be plunged in the open till autumn. The Ranunculus and Bulbocodium should be treated like the Iris first named. Schizostylis would be best pulled to pieces, single plants, and planted in moist ground. Iris unguicularis would be better potted on or planted in a sunny spot. Primula kewensis is neither annual nor biennial, but is capable of a greater vigour when periodically raised from seeds. Iris sibirica is a tall herbaceous kind suited only for the border or water-side places. The Gladioli should be given liberal pot culture, or be planted out in good, well-drained border soil in a sunny position.

Daphne not flowering (*Hayling*).—In all probability the roots of your Daphne are in an unhealthy state, and have been getting worse for the last two years. The first thing is to get the plant in a healthy condition, and this is a good time of the year to take it in hand. It should be turned out of the pot, and as much as possible of the old soil removed. Then it must be repotted in a mixture of loam, peat and sand. It is very necessary that the pot be effectually drained and quite clean. It is not at all probable that a larger pot will be required ; indeed, a smaller one may suffice, but that can only be determined by the condition of the roots. After potting, the plant should be placed in a shaded part of the greenhouse and care taken not to over-water, but at the same time enough must be given to keep the soil fairly moist. An occasional bedewing with the syringe will be helpful. When the roots have taken possession of the new soil and the plants have made good growth, it may be plunged outside till the autumn.

TREES AND SHRUBS.

Galls on Sallow Willow (*C. G. G.*).—The galls on the Willow shoots sent for examination have been caused by the larvæ of an insect called by entomologists Cecidomyia saliciperda. Mature insects deposit their eggs in small holes made in the bark of young branches, usually about the extremities. The larvæ feed on the stems, and in so doing set up an irritation, which results in the gouty swellings represented by the galls. The immature insects pupate in the galls, emerging in spring as small flies. This particular insect is common throughout the country where Willows are found ; but it does not always act in the same ways, galls of a different character sometimes being found.

Treatment for Wistaria (*Mrs. P.*).—Wistaria chinensis produces its flowers from buds formed on the previous season's growth. These buds may either be produced from spurry growths, which have been encouraged by constant pruning, or from the lower buds on the long shoots formed the previous year. Until a plant has covered its appointed space, long shoots may be encouraged in moderate quantities, the pruning being confined to the removal of the weak ends and the spurring back of lateral growths. After the wall is well covered, however, the correct method of culture is to induce spurry growths by constant pruning, for from wood in such a condition the greater number of inflorescences may be expected. It is a good plan to prune all long growths back in July to within five or six buds of the base ; then go over the plants again during winter and shorten any late growths which may have been formed. The shoots pruned in July may be cut back at the same time to two or three buds. Should an old branch show signs of deterioration, draw a young one up beside it, so that the older one may be cut out eventually. It is important in the first place that you should keep the main branches from becoming entwined, for if this occurs they are difficult to deal with at a later date.

ROSE GARDEN.

Preventing mildew (*E. B.*).—After pruning take care to burn all the growths cut off; then give the bushes a good syringing with arsenate of lead paste, which will destroy any insect pests lurking around them. In May well spray the opening leaves with sulphide of potassium, 1oz. to about ten gallons of water; or you could procure either V2 K Fluid, which is an excellent remedy, or Abol White's Superior, another good mildew destroyer. The main thing to remember is to spray frequently, and commence early before the young leaves become tainted with the pest. An excellent preventive for mildew may be made from carbolic soap, such as Lifebuoy, half a bar being sufficient for three gallons of water. You should use a very fine sprayer, and direct the nozzle beneath as well as above the foliage.

Climbing Roses for bay window (*George*).—You could grow a Rose very well in a large pot, which would be sufficient space for its roots for several years, especially as you could top-dress the plant each year with some good fertiliser and new soil. What is known as a No. 1 pot, or even a larger size, would be best. Write to Messrs. Sankey and Co., Bullwell Potteries, Notts, who would, no doubt, furnish you with sizes. What is known as an extra-sized pot plant would be best for you to procure; then turn this out of its pot and plant in the new pot. You would not need to prune such a plant very much the first year; just remove the extreme ends. By planting a ground plant of some variety in the same pot and cutting this down to within 6 inches of its base, you would furnish the lower part of the other plant with foliage during this summer, as mainly its new growths would be from the top. Prune all newly-planted Roses hard the first season. Those you name should be pruned back to about 5 inches or 6 inches during the latter end of March and early April.

Roses for pergola (*Pan*).—We certainly think each archway that is used for a Rose on one side should have a Rose on the other. We fear such things as Wistarias and Honeysuckles planted with the Roses in the same arch would, in course of time, rather smother the Roses, and you would have a difficulty in pruning the latter as they would need to be pruned. An early and late flowering Clematis might be planted together, a good early one being Miss Bateman. Avoca is good, but needs to be treated as a semi-climber or pillar Rose. W. E. Lippiatt is a fine Rose, but not very free-flowering. Friedrichsruh is a good dark Rose, and Charles J. Grahame a fine scarlet. Mrs. Walter Easlea is a very good rich-coloured variety. You should add Laurent Carle; this is splendid. Commander Jules Gravereaux and Gloire de Chedane Guinoisseau are also fine dark Roses; and if you can find room for Victor Hugo, Louis van Houtte and Charles Lefebvre you will not regret it. Farbenkönigin is good and a late bloomer. Two good yellow ramblers would be Electra (early) and François Foucard (late); or, better still, Shower of Gold.

THE GREENHOUSE.

Cyclamen (*E. H.*).—Cyclamen are increased by seeds, which should be sown in July, using for the purpose clean, well-drained pans filled with a mixture of loam, leaf-mould and sand. In an ordinary garden frame the seeds will soon germinate, but the pans must be removed into the greenhouse by September. Throughout the winter the plants need a good light position in a snug structure; that is, they require a closer atmosphere than a greenhouse in which an ordinary collection of plants is grown, and also a little more heat, say, a temperature of 50° to 60°. The seeds should be sown thinly, so that the young plants are not overcrowded, and if they do well they will by February be sufficiently advanced to pot them singly into small pots, using much the same kind of compost. As summer advances they are better in the frame than in the greenhouse, removing them to this latter structure in the autumn. Plants that are flowering now should be kept in the greenhouse even after the blossoms are over, and be regularly supplied with water until the leaves die down. They may then be placed in a frame with plenty of air, and be given just a little water to prevent them becoming absolutely parched up. About midsummer the plants should be shaken quite clean of the old soil, and be repotted in a compost made up of loam, leaf-mould and sand, with the addition, if possible, of a little brick rubble, broken fine.

Flue-heated greenhouse (*New Reader*).—Heating houses with flues for the growth of plants or fruits under glass is a clumsy, wasteful and ineffectual method, and has long been discarded by growers in this country. The dry heat given off is injurious to the growth of plants, and serious damage is often caused by sulphur fumes escaping from the flues. This manner of heating is quite obsolete, and we would advise you to do away with the flue and substitute for it five rows of 4-inch pipes—three rows near the front wall of the house and two rows near the back wall, those in front being the flow pipes and the two at the back the return ones. The boiler to heat the pipes could probably be fixed in the position now occupied by the furnace.

Plants for small greenhouse facing north (*Barbara*).—If your greenhouse can be kept at a temperature that falls little, if at all, below 40° in the winter during the night-time, a great number of ornamental foliage plants may be grown therein. The following are all very effective and of easy cultivation: Abutilon Sawitzii, white variegated; A. vexillarium variegatum, blotched with yellow; Aralia Sieboldii, lobed dark green leaves, leathery texture; A. S. variegata, a variegated-leaved form of the preceding; Asparagus Sprengeri, a pretty trailer; Araucaria excelsa, of pretty symmetrical habit; Aspidistra lurida variegata, a well-known indoor plant; Cordyline (Dracæna) australis, long, narrow leaves; Eurya robusta, Fern-like leaves; Isolepis gracilis, a drooping Grass-like plant; Myrtle; Ophiopogon Jaburan argentea variegata, Grass-like leaves, striped white; O. spicatum aurea variegatum, leaves striped yellow; and scented-leaved Pelargoniums of sorts. Besides these, the more robust of the greenhouse Ferns, such as many of the Pterises, the Cyrtomiums, some of the Nephrolepises, Adiantums and others will succeed. Many of the regular spring and summer flowering subjects would do well at those seasons, even in a structure facing north, particularly Fuchsias, tuberous-rooted Begonias, Primula obconica, Cannas, Liliums, Camellias, Cytisus racemosus, Cyclamen and bulbous plants of different kinds. Should the heating of the house be so erratic that it cannot be depended upon to keep out the frost, then the principal foliage subjects you can depend upon are hardy Ferns.

FRUIT GARDEN.

Effect of deep planting (*Ignorantia*).—To answer this question carefully it will be necessary first to define and say what is the "collar" of a tree. We take it to be that portion of the stem immediately above where the roots emanate and radiate from its base. The proper and orthodox way to plant the trees is for the roots to be buried to the depth of 5 inches; that is to say, the stem should be buried to this depth, and no more. If it is buried deeper, the benefits in the way of added fertility accruing to the roots from the greater warmth and better aeration of the soil at this depth would be lost. To plant at a less depth would expose the trees to damage from drought in hot weather, and also to injury by cultivation from the hoe and fork. A safe rule to follow in planting is to plant the stems of the trees to the same depth as they have been previously planted in the nursery. This depth will be found indicated on the bark of the trees by a dark ring.

The Woburn system of planting and pruning fruit trees (*N. R.*).—You are quite right; there was such an article, and the description is quite true. As a result of the Woburn experiments, carried out for many years under the direction of Mr. Spenser Pickering, F.R.S., and the Duke of Bedford, they have proved to their own satisfaction that Apple trees planted in ordinary cultivated land without any special preparation of the soil succeed as well as, or better than, those planted in land deeply trenched and liberally manured at great cost. They also find that the unpruned Apple tree gives better results in the way of quantity and quality of fruit than does the pruned tree. We must, however, admit that we are not converts to this method of culture or to non-pruning. We cannot, of course, say whether your trees have been overpruned or not without seeing them. You should, if possible, engage a good and well-known expert to come and give you a few lessons. You could then prune your own correctly, and with confidence. It is a bad practice to denude Vines of their bark. All that it is necessary to do is to rub off the loose outer bark with the hand, and then wash the rods carefully with soft soap and warm water. If the Vines have been infested in the summer and autumn with insect pests, let the canes be painted over with Gishurst Compound. This can be had from any seedsman advertising with us, with directions how to use.

MISCELLANEOUS.

Acetylene gas refuse (*A. C.*).—An article on this appeared in THE GARDEN of March 6, 1909, page 111. If you could refer to this it would give you full information on the subject. The refuse has the same action on soil as slaked lime, and may be spread on the soil in the autumn about half a bushel to the square rod; but it should be exposed to the air for some time before digging it in. For soil that is at all sour or has been over-manured it would be beneficial.

SOCIETIES.

THE HORTICULTURAL CLUB.

"FUNGI."

ON Tuesday, the 14th inst., at the Hotel Windsor, the members of the above club had their usual monthly dinner, and on this occasion were associated with a considerable number of the provincial secretaries of the International Horticultural Conference of 1912, who were entertained in that connection. After the dinner, at which Mr. Gurney Fowler presided on behalf of both bodies, Mr. A. D. Cotton of the Kew Herbarium gave a most interesting lecture on "Fungi," illustrated by a large number of lantern slides. At the outset he explained that the three lower classes of non-flowering plants were the Algæ, or Seaweed, the Lichens, or Liverworts, and the fungi, with which he proposed to deal. These were divided into an immense number of families, of which popularly the Mushrooms, or Agarics, were best known. He threw this on the screen, and followed it up by specimens of many others, some edible and some very poisonous, the visible difference between the two being often only perceptible to experts. Some, as he pointed out, were parasites, deriving their sustenance from living matter, upon which they preyed, while others were content with dead matter (saprophytes), though in some cases these proved themselves capable of acting in both *roles*. The parasitical ones were capable of destroying trees to a very great extent. Some of these could only obtain access to the living portion of a tree through a wound in the bark, which suggested the great advisability of covering such wounds as are caused by chopping and pruning with a good coat of tar. Others, however, attacked the roots, and these were much more insidious, being apt to infect neighbouring trees when infected roots reached them through the soil. Mr. Cotton then turned from the easily visible fungi to the immense horde of minute ones which constitute the "moulds" and many of the diseases of plants and in some cases of animals, while in the case of Stilton and other cheeses they have an attraction for the expert in flavours which a good microscope might do something to modify. Minute, however, as these fungi are, they are often extremely beautiful when highly magnified, their groups and clusters of spores being charmingly arranged and fashioned. Slides were shown of resting spores or persistent fruits and seed vessels and on the wood, and it was demonstrated that a drastic destruction of such "depots" in the winter would go far to reduce destruction later on. As, however, the lecturer pointed out, the destruction brought about by these minute fungi and by some of the larger ones has its beneficial side. It is part and parcel of the great compensating scheme of Nature, which, when death occurs, restores the materials to the earth for reuse instead of merely piling it up in a non-utilisable form. Every dead leaf is at once seized upon by fungi and decomposed into its original elements of carbon and carbonic acid gas, the residue constituting the best possible food for a future generation. A very hearty vote of thanks concluded the meeting.

PROPOSED NATIONAL DAFFODIL SOCIETY.

THE adjourned meeting of those interested in the formation of a national Daffodil society was held in one of the committee rooms of the Royal Horticultural Society's Hall on Tuesday, March 14. There was a large and representative gathering. The Rev. G. H. Engleheart was voted to the chair. He addressed the meeting at some length, and in the course of his remarks paid a warm tribute to the work that Mr. Cranfield had done in ventilating the subject and bringing it before their notice. Undoubtedly, he said, it had been productive of good. It was generally known that earlier in the day Mr. W. B. Cranfield, who, together with the Rev. Joseph Jacob, has been the prime mover in this matter, had been invited to attend the ordinary meeting of the Narcissus committee. Hence he was able to tell those present what had taken place at that meeting. There had been, he said, a long discussion, after which the following resolution was passed: "That the Council be asked if they are willing to grant the Narcissus committee power to hold a two days' show in mid-April; to allow them to issue a year book and a schedule of prizes, the money portion of which was to be found independent of the Royal Horticultural Society; and, lastly, to empower them to sub-divide themselves into sub-committees for special purposes." Through the Hon. John Boscawen the Council had replied as follows: "The Council, having considered the resolution sent up to them by the Narcissus committee this day, are willing (1) to hold a two days' show in April; (2) to issue a year book if the committee supply sufficient and suitable material for the same; (3) to issue a schedule for the show after receiving recommendations from the committee thereupon; and (4) the Council consider all committees competent to sub-divide themselves into sub-committees for special and topical purposes." He (Mr. Cranfield) now proposed "That in view of the resolution passed by the Royal Horticultural Society's Council, the proposal to form a national Daffodil society be postponed until it is ascertained how far the Narcissus committee's proposals will be found to be workable." In the few remarks that he made he emphasised the fact that the formation of a national society in certain contingencies might still be, in his opinion, a desirable thing. It was not finally abandoned. The Rev. J. Jacob seconded, and after some remarks from the chairman, Canon Fowler, Mr. Adams, Mr. F. H. Chapman and others, the motion was carried *nem. con.* It now remains to be seen how the committee will proceed to carry out their new powers.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE DWARF-GROWING BROOMS.

DURING the spring months our gardens and woodlands owe not a little of their beauty to the many and widely divergent hardy forms of the Cytisus or Broom, a race of shrubs that possess many merits peculiarly their own. The graceful and artistic habit of the plants, coupled with their floriferousness and adaptability for thriving in the poorest soils, render the hardy Brooms favourites with all, and few indeed are those gardens wherein at least one or two examples are not found. Useful as the taller-growing species and varieties are for the woodland, there are obviously many places in the garden proper where they would be too large, and here it is that those species and varieties with dwarf and more or less prostrate habit will be found most useful.

Even in the rock garden some of the choicest of these dwarf Brooms may be planted without fear of their stems or blossoms clashing with the smaller and perhaps more highly-prized alpines. At Kew, as well as in several private gardens, such kinds as the beautiful C. kewensis and the newer C. Beanii have been used in this way with striking effect. Planted at the top of large boulders, their wand-like shoots are allowed to tumble in profusion over the miniature precipice, which in May is converted into a veritable shower of golden-hued blossoms. Even when not in flower, the green, slender stems of these two charming little Brooms are attractive, and provide a welcome change from the more severe habits of the majority of rock plants.

In addition to their value for the rock garden, the dwarf-growing Brooms may be utilised for many purposes, such as for edgings to walks in the more informal parts of the garden or for massing in beds where a permanent covering of dwarf stature is desired, as well as for forming groups towards the front of the shrubbery.

Both the kinds named above are natural hybrids that were secured some years ago at Kew. C. kewensis has creamy white flowers of medium size, these being produced in profusion on healthy plants. C. Beanii is not quite so prostrate as kewensis, and is not so well known. The flowers are also of a deeper golden yellow. Although these two hybrids may be regarded as the best of the dwarf Brooms, there are others that are well worth growing in those gardens where choice or unusual shrubs are appreciated. Among these mention must be made of the dainty little alpine Broom, C. Ardoinii, which is generally supposed to be one of the parents of C. kewensis and C. Beanii. It rarely grows more than a few inches high, and has blossoms of golden yellow colour. C. leucanthus is another Broom well adapted for the rock garden, though in some places it proves rather a difficult plant to grow well. When clothed with its white or creamy white blossoms it forms a very attractive little shrub, and is infinitely preferable when grown in its natural dwarf form than when grafted on half-standards of the common Laburnum, a system that is often successfully adopted.

In C. decumbens we have a dwarf Broom with golden flowers, while the purple-flowered C. purpureus is so distinct and well known as to need no further description. It grows taller than the other kinds named and needs pruning back rather hard as soon as it has finished flowering, treatment that most other kinds of Brooms strongly resent. A new Broom that will undoubtedly prove a valuable acquisition for filling large lawn-beds, as well as for grouping in the shrubbery, is C. Dallimorei. This was raised at Kew by Mr. W. Dallimore, its parents being C. scoparius andreanus and C. albus, the former having golden flowers heavily blotched with brownish crimson, and the latter, as its name implies, white blossoms. The result of the combination of these two, as seen in the new hybrid, is curious, the general colour of its flowers being rosy purple or almost old rose, while the wing petals are almost crimson in colour. In size the flowers are about midway between those of the two parents, and are produced in abundance.

Although several natural hybrids of the Cytisus have been previously obtained, C. Dallimorei is the first authenticated case of a hybrid being produced artificially. No doubt, now that such an excellent plant has been secured, hybridists will give some attention to the hybridising and crossing of this useful and interesting family of shrubs. Already a few nurserymen have secured some interesting variations, principally of the common Broom (Cytisus scoparius), notable among them being Mr. T. Smith of Newry, who has during recent years devoted considerable time to the hardy Brooms. J. C.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 4.—Cornwall Daffodil and Spring Flower Show at Truro (two days). Scottish Horticultural Association's Meeting.

April 5.—Royal Caledonian Horticultural Society's Spring Show (two days). Liverpool Spring Show (two days). Royal Horticultural Society's General Examination, 6 p.m. to 9.30 p.m.

April 6.—Linnean Society's Meeting.

April 7.—Kingsbridge Daffodil Show, Town Hall, Kingsbridge.

April 8.—Seascale and Lake District Spring Show.

A Rose and Sweet Pea show at York.—In aid of the Sick Poor Night Nursing Fund, a Rose and Sweet Pea show is being arranged at Ousecliffe, York. The date of the show is not yet fixed, but it will be held in the month of July. Full particulars and entry forms may be had on application to Mrs. Richard Lawson, Ousecliffe, York. We hope that the show will be well supported.

The North of England Horticultural Society.—As will be seen by a brief report which appears on another page, the first monthly exhibition in connection with the above newly-formed society was held at Leeds on the 22nd ult., and proved most successful. The founding of this society must be taken as a sign of the increasing interest which is being evinced in horticulture generally in this country. Conducted on the broadest lines, such a society should do a great deal of valuable work in the Northern Counties, and is deserving of support from all interested in gardening. The secretary is the Rev. J. Bernard Hall, B.A., Rawdon, Leeds.

Forced bulb show in Holland.—The committee of the exhibition of forced shrubs and perennials at Boskoop, Holland, is receiving support from all interested in horticulture. H.R.H. Prince Henry hopes to be present at the opening, and has presented two large medals. His Excellency the Minister of Agriculture will deliver the opening speech. The steamboat company de Volharding of Leiden will place a large saloon-boat gratis at the disposal of the jury, officials of the Pomological Society and the commission of the exhibition, to make a trip to Rotterdam on April 6. The famous harbour works will be seen, and the Holland-America line will invite the International company to lunch on board one of its great trans-Atlantic passenger-boats. In consequence of this, the opening of the exhibition will be a day earlier, and has been fixed for April 5.

Plague of pigeons.—We have received from the Secretary of the Board of Agriculture and Fisheries the following: "In view of the complaints which have been received as to the depredations which have recently been committed by wood-pigeons, the Board desire to suggest to landowners, farmers and gamekeepers that they should make a combined effort in the fortnight beginning March 20 to reduce the numbers of the pigeons in their neighbourhood. It is probable that many of these birds are migrants and have not yet settled in any district, so that if the steps suggested by the Board are taken, many of the pigeons now attacking crops may be prevented from settling in the district, even if a large number of birds are not shot. A special attempt should be made to shoot pigeons late in the evening, so as to drive them from the woods or other cover in which they roost." We learn, too, that wild pigeons which find their way to our shores are found to be the carriers of infectious germs, and that they are to blame for an outbreak of diphtheria among human beings in Huntingdonshire.

Sweet Pea exhibition in Aberdeen.—The cultivation of the Sweet Pea in the Aberdeen district is so extensively carried on that a committee has been formed with a view to holding an exhibition of the flower in the month of August, and the promises of support are such that there is no danger of any failure resulting from the want of exhibits, while the scheme is being very heartily supported in influential horticultural circles. The committee have been fortunate in securing Mr. M. H. Sinclair as secretary, and Mr. James Esslemont is the chairman. The show will provide classes for both amateurs and professionals, and what is likely to prove a good feature of the exhibition will be the classes for decorative exhibits open to ladies. Aberdeen is such an excellent centre for horticulture that this show is certain to command success.

Disease of Celery.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Chittenden commented upon the widespread character of, and great loss occasioned by, the disease of Celery due to the fungus Septoria petroselinii var. Apii during the past year. He drew attention to the fact that a considerable amount of Celery seed on the market, including samples grown in England and on the Continent, showed the perithecia containing ripe spores of the fungus. Klebahn has recently shown that the spores from affected seed are capable of reproducing the disease, and as so much of the seed seems likely to contain spores, the desirability of special attention to Celery during the coming season is indicated. If the foliage shows the least sign of the disease by the development of small brown spots, the plants should be sprayed with potassium sulphide or with Bordeaux mixture at once, the spraying being repeated if necessary.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sprouted seed Potatoes.—The illustration of prepared seed Potatoes in a box on page 133 is admirable; but the one showing the sprouted sets placed in a furrow ready for covering over with soil is less so, because it shows the sprouts, which, of course, are very brittle, standing erect, and therefore in danger of being broken off with the weight of soil placed on them. My own rule to save the sprouts from any possible injury from such cause is, when placing each set in the furrow, to draw a small hollow with the hand in which the set is placed, so that the sprout may have a little bank of soil at its end to rest upon and sustain it under the pressure of the soil added later. It may seem a trifling matter; but seeing that the proper sprouting of the sets entails a large amount of care and labour, and as the doing so has a very important bearing on the ultimate crop of tubers, too much care cannot be taken to ensure that the sprouts are unharmed. It is very important also that the sprouting be done in ample light to ensure thorough hardening and greening. Sprouts produced in semi-darkness are certainly only partly blanched, and therefore tender, and are very liable to die or damp off when placed in soil that is probably much colder than was the temperature of the store whence the tubers were obtained. We hear from time to time of trials still being conducted for the purpose of testing the productive merits of sprouted and non-sprouted sets; but these are sheer waste, as experience extending over many years and in all directions has shown that the advantage is greatly on the side of the sprouted tubers. Until a tuber has sprouted it is not easy to determine whether it is healthy and fertile. Once good sprouts are formed, no question on that head remains. But it is a great advantage to be enabled to determine which sets are fertile and which may from some inherent disease or other causes be non-fertile, as these latter can be rejected. Were not the sets thus sprouted, these non-growable sets would get planted also, thus causing many blanks.—A. D.

Hillfields and District Allotment Association.—Our association has decided to register under the Industrial and Provident Societies Acts for the purpose of acquiring land and letting it as small holdings and allotments, and for the present we wish to remain independent, as we know of no society sufficiently democratic to which we could bind ourselves. The only difficulty is the expense; but if a dozen or more societies joined to prepare a model set of rules, they could register at a very slight cost, and at the same time retain their independence, and would not be compelled to pay any annual affiliation fee. The gain to each society would be considerable, and I should like to get into correspondence with the secretaries of other small holdings or allotment societies wishing to register independently and willing to share the expense and gain of preparing and printing model sets of rules.—E. G. MORRELL, *Secretary*, 14, *Coombe Street, Coventry.*

Hybridising Daffodils.—On page 554 of Vol. LXXIV. of THE GARDEN you review the book entitled "The Daffodil," by the Rev. J. Jacob. As your pages are open for horticultural discussion, I crave a little space to criticise. Permit me, however, to state that, as a whole, the book is an excellent publication for the beginner, and, at the price, good value. The orthodox practice of stating that the pollen parent produces colour is followed. Is this the practical experience of the writer? Personally, I have not had the time to test the accuracy of this statement; but in my humble opinion it is an absolute fallacy. This can only be definitely stated when the pedigree of the pollen parent is definitely known for at least three generations, or by using the pollen of a species which reproduces itself true from seed. This, I think, accounts for Poeticus Poetarum imparting its pigment so readily when used in hybridising. I, with many others, think it regrettable that pedigrees are not given when putting a novelty on the market. The prices charged should warrant this. Should my brief criticism bring forward a reply from some of the notable hybridisers of the day, I am sure their writings will be eagerly read by numbers of your readers.—W. G. C. BEUMELBURG, *Christchurch, New Zealand.*

Roses from pots for late planting. I must decidedly differ from your correspondent "A. P." when he refers to March as "late" for planting Roses. If it were the end of April or early in May, then by all means plant out pot-grown stuff; but March is a very excellent month for planting dwarf Roses from the open ground, and in late districts, such as in the North and Scotland, it is a far better month than December or January. I would ask how many individuals there are who would care to pay perhaps twice as much for a pot plant as a dwarf bush from the open ground, to say nothing of the expense of carriage? Besides which, pot plants in 5-inch pots are seldom satisfactory, and it is only the wealthy who can afford the price of extra-sized plants in 8-inch pots. March planting, in my extensive experience, may be most successfully carried out, providing one prunes the plants hard at the time of planting or immediately afterwards, and sees to it that the roots are firmly pressed. I have planted thousands

of Roses in March with the greatest success, and would prefer this month to even February in an ordinary season, as by this time the solar heat begins to tell on the soil dug up in February, and the roots get to work in it at once. The great majority of nurserymen plant their main crops of dwarf Rose stocks in March; if this, therefore, will do for stocks, why not for dwarf Roses? I do not say I should care to dig up forward plants, but most growers "heel in" their plants in spring and keep them shifted in order to check growth; consequently, they transplant with the greatest safety.—P.

Quantity *versus* quality in Potatoes.—An old and valued friend of mine who is great at gardening asserts that he has taken THE GARDEN from the year 1871, and considers it holds among gardening journals the same position *The Times* does among newspapers. As a reader of long standing, I entirely endorse his opinion, and desire to call attention to a fault that urgently requires correction in the ridiculous system of awarding credit and prizes to quantity instead of quality in Potatoes. I have several times seen this discussed in THE GARDEN. Mr. George Engleheart, some years since, wrote very strongly condemning it, asserting that such grand-flavoured old English Potatoes as the Rock and Prince Regent had been allowed to die out, and none to compare with them brought into use to replace them. Like many others, I have ever liked a really good-flavoured Potato, and agree with Mr. Engleheart that flavour ought to be the very first consideration in awarding merit instead of yield. Next should come disease resistance, then shape and then yield. I have raised new varieties of Potatoes for years for my own eating, and use one now which is always praised for its flavour and mealiness by those who taste it; but in 1904 I staged one called Recompense at the Royal Horticultural Society's exhibition, which, although of fine flavour, was rejected because it was not sufficiently productive, yet it had every other good quality. In 1909 I raised a most excellent variety of grand flavour, kidney shape, eyes flat on surface, but dark skinned and very white flesh. Having tried one (it yielded thirteen to the seed-root), I was so struck with the beauty of its flavour that I mentioned it to a friend of mine, a great lover of a good Potato, and he requested me to bring a tuber to be tested against six other sorts. The varieties I chose were Up-to-Date, Puritan, Northern Star, Sir John Llewelyn, King Edward VII. and Snowdrop. He, his wife and three children said mine was of superb flavour, and that they had never before tasted a Potato with such a grand flavour. I therefore named it Superb Flavour. They really were most enthusiastic in their praise of it. It was not until a few weeks ago that I tested it again, when a friend living near asked me to let him try it. I took one to him on condition it was cooked to my instructions, in its jacket, put on a moderate fire with water and salt till it boiled, then simmered gently till it admitted freely a five-pronged fork. Both he and his grown-up daughter pronounced it by far the finest-flavoured Potato they had ever tasted, and begged me to show it. I told them my experience, but promised to write an account of it to THE GARDEN. Of course, my friend wanted some to plant; but I said I would not part with a single eye of it. Now, if a committee of taste of six gentlemen can be found to try it within a few weeks, I would supply one tuber to be tried against any six Potatoes, and am convinced mine would come off victorious by unanimous accord; but I must plant at the latest by the second week in April. It has never shown the least indication of disease; but, then, I do not force with mineral manures.—G. R. KING, *Collin Row, Romford.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

CAULIFLOWERS.—Plants raised last autumn and wintered in frames must be thoroughly hardened preparatory to putting them out about the middle of the month. The lights may be entirely removed unless very sharp frost is imminent. See that they do not suffer for the want of water. Further sowings may be made outdoors on a warm border.

Potato Planting.—This work may be proceeded with when the ground is in a suitable condition. The tubers must be carefully handled, so as not to injure the shoots. The main crops may be planted with about 30 inches between the rows and 15 inches between the plants, and the tubers should be placed about 4 inches below the surface. Watch for the growths of the early crops, and draw the soil about them when they appear above the ground. Some material must also be at hand to protect them from sharp frosts.

Globe Artichokes.—New plantations may be made of these from suckers which have been wintered in frames. These also need a rich rooting medium. Put the plants out about 3 feet apart and allow 4 feet between the rows. Remove the protecting material from the old plants. Give the ground a dressing of manure and fork it in.

Rhubarb.—A planting of this may be made now if necessary. The soil should be deeply tilled, but not too heavily manured. Select the crowns from the outside of the clumps and plant 4 feet apart each way.

Sorrel.—A new plantation of this may be made. Old forced plants may be pulled to pieces and planted in rich, well-tilled soil in rows about 2 feet apart.

Seed-sowing.—Every advantage must be taken of fine weather when the ground is in a suitable condition for sowing seeds. The main crop of Carrots must be sown, also Cabbage for autumn supplies. Turnips may now be freely sown in rich land which has been prepared some time in advance. Make frequent sowings of Lettuce, and put out plants which were raised under glass if they are properly hardened off. Sow Vegetable Marrows in 3-inch pots. When large enough, pot them on into 6-inch pots, and encourage sturdy growth by keeping them near the glass. They will make good specimens for planting outdoors by the time the weather will permit of this being done. Sow Salsify and Scorzonera about the middle of the month.

FLOWER GARDEN.

Bedding Plants, such as Pelargoniums, Heliotropes, Iresine, Marguerites, Ageratum and others, growing in pots must be encouraged to make good progress, as they should soon be removed into cold frames to be gradually hardened off in readiness for bedding. Pay timely attention to "stopping," to encourage a bushy habit. Calceolarias, Veronicas and Pentstemons may be thoroughly exposed except during severe frosts. Violas may now be put out into their permanent quarters.

Early Chrysanthemums.—If these are well established in pots, they may be planted out. They make a splendid show in a mixed border during the autumn, and a good quantity should be grown for this purpose. They are also invaluable for cutting. Nina Blick, Harvest Home, Ella Russel, The Scot, Pink and Bronze Massé, Ruby King and Market White are all excellent sorts for this purpose.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS BORDERS.—If replanting has still to be carried out, it should be done without delay. Most of the plants have made considerable growth by this time, and require careful handling when dividing. As a general rule, pieces should be selected from the outsides of the old plants, instead of dividing with a spade the main crowns, which are often quite exhausted. A digging-fork is the best tool to use for this purpose, as it does not unnecessarily mutilate the roots. Plants that are outgrowing their respective places should be curtailed, not by ruthlessly trimming round them with a spade, but by lifting the plants entirely and replacing a small portion of recent growth. When planting is completed, the borders should be forked over, working in some well-rotted manure or other stimulant. If lime has not been applied for some years, it should be given in some form or other. We prefer to use it in the form of shells, which have been made fine by the addition of rotted vegetable matter and passed through a coarse sieve. In every garden there are quantities of refuse which, after rotting for some years, may be profitably employed if mixed with lime, the heat generated by the lime shells killing the seeds and weeds that would otherwise prove troublesome.

Propagation.—Several of the herbaceous subjects can be propagated at this season with better results than in autumn. Phloxes root readily if taken when about 3 inches long and placed under the same conditions as that for propagating bedding plants, and if planted out during summer will make fine strong plants for flowering next season. The old plants, too, are benefited by the removal of a few of these shoots for cuttings, as the growths in any case would require thinning out later on if fine spikes are to be expected. Any scarce variety of Michaelmas Daisy that is required in quantity can be readily increased in the same manner. That gem of dwarf varieties, Aster Thomsonii, is of slow growth and increases very slowly by divisions, but roots readily from cuttings taken in spring.

The Rock Garden.—There are now numbers of the earlier occupants of the rockery in flower and in bud, and to give these full justice, all wind-blown leaves from surrounding trees should be removed, for if allowed to lie they will cause injury to any tiny plant they come in contact with. Strong-growing subjects will require to be kept within due bounds, otherwise they may overgrow and kill out some choice neighbour, besides unduly covering the stones that form the rockery, a condition that should be avoided quite as much as giving too much prominence to the stones.

Wall Gardening.—At this season renewing of some plants may be necessary. For this purpose a stock of cuttings or small pieces taken in autumn and placed in a frame or sheltered spot will be available now, and the planting of these in an existing wall requires a little more manipulation than "planting while you build." Select suitable joints in the wall and, having scraped out a hole large enough to receive the roots of the plant, place the roots carefully in and as deep into the wall as possible. Now proceed to push in small lumps of turf till the hole is filled up, ramming them firmly with a piece of stick, as this soil would be liable to crumble and fall out by the action of the weather. A wedge-shaped chip or splinter of stone should then be hammered firmly into the crevice, care being taken not to bruise the plant or its roots. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

VINES AND PEACH TREES IN THE SAME HOUSE.

HAVING passed the flowering stage, the Peach trees will require moisture and a temperature very similar to that for Vines, so for a short time the treatment may be carried out without difficulty. In the meantime, the principal work to be done to the Vines will embrace that of the tying down of shoots and the pinching back to one leaf of all sub-lateral shoots. The Peach trees must be very carefully disbudded, not only of shoots, but also of fruits, if the cultivator is fortunate in having secured a surplus of the latter.

In houses where Peach trees are the sole or principal occupants, and are, consequently, given special treatment, that which suits them best, the thinning out of the young fruits should be gradually done, so as to finally leave, after the fruits have stoned, one Peach to a square foot of wall or trellis space. In order to secure this desirable result where Peach trees are growing in a vinery, it is advisable to leave about 15 per cent. more fruits on the trees throughout the stoning period than would be necessary where Peach trees are the chief occupants of the house. "Stoning" means the hardening of the stones in each fruit. Up to a certain stage of development, when the fruits are about the size of small Walnuts, the stones are soft, similar to pulp, and also, up to this stage, they swell rapidly; then comes a period when the swelling seems to cease. It does actually do so for an average of twenty-one days, but, in the meantime, the stones are hardening, and when the process is complete the fruits commence to swell again. The stoning period is, however, a most critical one, and when the trees are growing in conjunction with Vines, more fruits may fail to completely harden their stones; then they turn yellow and fall off. For this reason I advise cultivators to be less severe in the thinning of the fruits up to the end of the stoning stage, so as to prepare for losses.

The safest way to tide Peaches over the stoning period is to do as little as possible to excite growth by way of forcing. Let the trees grow as naturally as possible by admitting a little more air, and all may be well with them. This can be managed if the Vines are at their flowering stage. A drier atmosphere is then best for the Vines, and a close, hot one would be bad for the Peaches. AVON.

THE FLOWER GARDEN

THE FASCINATION OF THE ANEMONE.

(*Continued from page* 141.)

ANEMONE BLANDA in warm and sheltered borders is often one of the first of the spring flowers to appear. In the short, dark days of the Old Year the sturdy leaves, and perhaps a bud or two, push through the soil and speak of brighter days more clearly than the Snowdrop or Winter Aconite. Its brilliant blue colouring certainly seems to belong to a later part of the year than the white and yellow of those others. It is a native of Greece, but is perfectly hardy with us. The early blossoms may sometimes be a little smaller and duller if bad weather follows their appearance, but I have never noticed them really injured by sharp frosts. This and the closely-allied A. apennina differ from the true Wood Anemones in having hard tuberous roots instead of the slender and brittle creeping rhizomes so characteristic of nemorosa and its relations. They do not, therefore, spread into such large masses; but blanda is a wonderfully free seeder, and if the little seedlings are recognised and respected for their first two years, delightful surprises in colour variation will be sure to greet the not too tidy gardener when these new-comers flower.



ANEMONE BLANDA IN MR. E. A. BOWLES'S GARDEN.

The tiny seedling in its first year appears with just a pair of rather plebeian-looking cotyledons, and is so suggestive of one of the tiresome annual Veronicas or cruciferous weeds that abound in most gardens that they perish in that greatest of all times of peril for baby treasures—the spring cleaning and forking over. People often say to me in a manner I rather resent, "How lucky you are in finding such good seedlings in your garden." My answer is to point to some tangle of weeds and say, "That is the price I pay for them." I feel sure if we followed Mr. George Wilson's rule of gardening, in only pulling up weeds by hand instead of hoeing and digging so much, we should all find plenty of charming surprises in the shape of unexpected seedlings, little presents from our plants and gardens.

A. blanda ranges in colour from pure white through pale lilac and light blue to deep ultramarine and blues of quite purple shades, and yet again from a peculiarly lovely shade of rose pink to reddish purples, and it is hard to say in which shade it is most lovely. Perhaps the dark blues are the most valuable, as representing a colour that is scarce in the garden so early in the year, and only approached by the double blue Hepatica. I own to a great affection for some of the paler shades when accompanied by a broad white eye, and the variety known as scythinica, though always later to blossom than the others, is indeed a joy. When fully opened in the sunlight its glistening white flowers are lovely enough, and remind one somewhat of some of the white Buttercups of Alpine heights; but when only half expanded, so that both pure white upper surface and rich purple back are visible, the effect is very remarkable. I cannot think of any other flower in which the strong contrast of inner and outer colours is so pleasing, unless it be in the form of Crocus Balansæ, in which the outer segments are rich mahogany brown outside, and all the rest of the flower is yolk of egg orange.

There is a beautiful plate of this form of A. blanda in THE GARDEN for October 7, 1899, under the name of A. blanda cypriana; but there is only one flower in it so drawn as to show the true value of the contrasting colours.

A few years ago the wonderful garden of Bitton Vicarage made a charming present to its venerable and scholarly chronicler and master, a tribute of affection and gratitude for his half-century of skilful attention and wise rule. This took the form of a series of double forms of A. blanda ranging in colour from a pale greyish blue to the deepest ultramarine blue I have ever seen in any flower, except perhaps in some of the very deep and rich blue Cinerarias or Delphiniums. The Bitton clump of this most lovely variety is one of the finest sights of spring, for the flowers are, when expanded, over 2 inches in diameter and wonderfully full. The doubling is apparently of a twofold nature, both a repetition of the whorls of sepals and also the transformation of anthers into shorter and more deeply-coloured petaloid bodies set among the repeated rows of sepals, somewhat after the fashion of the doubling in Narcissus incomparabilis in the form known as Butter and Eggs, where perianth and cup are repeated in numerous series. Thanks to Canon Ellacombe's well-known generosity, two of these seedlings, a pale and a dark blue, have found a home in my garden, and so far do not seem to pine for the warm southern border under the long wall in which they were born, but have made up their minds to make the best of life, and are thriving vigorously in a sheltered nook of my rock garden.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

(*To be continued.*)

SCHIZOSTYLIS COCCINEA IN POTS.

IN many gardens the showy Schizostylis coccinea is cut off by frost long before its flowering would be finished did our winters not come so rapidly. In these gardens potting up the plants would serve a useful purpose by giving bright scarlet flowers

for a considerable time after those in the open were cut down. If the soil about the plants is well watered, they can be lifted and potted with little disturbance of the roots and consequent check, so that those who have had plants in the open may follow this method with advantage. Some gardeners, however, prefer to grow this plant in pots all the summer, their method being generally as follows: Clumps are lifted from the open ground in April and are potted in 6-inch pots filled with good soil, enriched with some old manure or with some artificial fertiliser in the proportion recommended for pot plants by the vendors of the manures. The pots are then watered and plunged in ashes in a shady place during summer, being taken into a slightly-heated house when frost threatens or the spikes begin to show colour. In spring they can be planted out again and others potted, the first batch having a rest in the open for a few months or until another season. S. A.

CHIONODOXA SARDENSIS.

During the past few weeks the charming little bulbous flowers known under the popular name of Glory of the Snow have formed one of the most attractive features of our gardens. The best known is Chionodoxa Luciliæ, an inexpensive and beautiful species that might well be planted in large masses in shrubberies and other situations where a carpet of blue and white would be welcome during the early months of the year. Of even greater beauty, however, is the variety sardensis, an illustration of which is given herewith of exactly natural size. Although I believe this charming little flower is regarded by some as a distinct species, the Kew authorities quote it as a variety of C. Luciliæ. Whether it is a distinct species or not does not detract from its merits as a first-class flower for the garden or greenhouse. In colour it is a much more intense and vivid blue than C. Luciliæ, and the colour is heightened to some extent by the small white eye of each blossom. This exquisite little flower should be planted in autumn, and subsequently left alone. Although the flowers do not usually come very strong the first year, they gain vigour the longer the plants are allowed to remain undisturbed, and seeds, and subsequently seedlings, will be produced in abundance. In addition to its value for the outdoor garden, this Chionodoxa makes a useful pot plant if a number of the strongest bulbs are planted closely together in a good-sized pot in the autumn and grown as naturally as possible, just taking them into the greenhouse to open their flowers. H.

SWEET PEA NOTES.

Boxes for Seeds.—Several readers have written upon this subject, and the Editor has been able to find space for two letters, both of which go to support the view expressed in this column that seedlings thrive better in boxes than they do in pots. The most interesting point raised is that of planting out from boxes. Mr. J. Wood, in The Garden for March 11 (page 115), speculates as to whether special boxes are made for the purpose. Briefly, they are not, because ordinary ones are far cheaper, and they answer the purpose equally well. Your correspondent alludes to the disadvantage of loosening the ball of soil and roots; but there is little or nothing in the matter, as I have proved repeatedly that if reasonable precautions are taken, there will not be a *momentary* cessation of progress, even when every scrap of soil is shaken off. The boxes used are of any length and width, and about 9 inches deep.

Fixity of Stocks.—On page 115 "Fixity" contributes a most admirable letter on this debatable subject, and I am in full agreement with him on the nuisance to the amateur with limited space at command who finds even one of his stocks mixed; but he is taking too much risk in hoping to show in a class for twelve with only exactly that number of varieties under cultivation. Apart from the fact that one may vary, there is no doubt that all varieties do not come to perfection at the same time, and it is quite possible that two out of the dozen would be in poor form when the other ten were all good for gold medals. To exhibit twelve distinct, not fewer than sixteen should be grown. I cannot see eye to eye with "Fixity" in regard to double standards. That they give size is unquestionable, but they detract from the grace of the bloom, and should not, therefore, in my opinion, be too much favoured.



CHIONODOXA LUCILIÆ SARDENSIS. (*Natural size.*)

Preparing for Planting.—Planting out has already started in many gardens and districts, but the majority of plants will not be ready for their permanent positions for another two to three weeks. However, it is very necessary that the preparation of the chosen situations shall be completed rapidly, and the chances are that little will remain to be done beyond digging over the quarter one spit deep to encourage friability, so that much labour will not be called for. The mixing in of an approved chemical manure will usually do good, provided that the amount used is not excessive and that the mixture is not of too exciting a nature. A home-made compound can be formed at will, but I should give the preference to one ready made for use, and should strictly adhere to the directions.

Hardening Plants.—The experienced cultivator who has studied his plants from the time that they first showed through the surface of the soil will assert that it is unnecessary to consider this point, for the all-sufficient reason that they have never had a chance to get tender. All growers, however, are not alike, and some will persist in nursing their cherished plants. In so doing they make them to some extent weak, and unless they are carefully handled prior to planting out they will receive so severe a check that it will take them many days, and perhaps weeks, to fully recover, and occasionally they never properly do so. If the plants have been mismanaged in the direction indicated, let them be stood out of doors as much as possible, and increase the length of exposure day by day until they are finally as hard as anyone could desire them to be.

Tying Up.—The supporting of the youngsters is always a matter that calls for attention. In principle they should produce tendrils endowed with abundant power to hold up the plants producing them, but this does not always work out just right in practice; besides, we do not all want plants which are practically nothing else except splendid tendril-producers. Therefore be prepared to give artificial support, and do not fail to see that it is efficient, as it is most important that the natural tendency of the plants to go upwards shall be encouraged. The work is a little tedious, perhaps, but it is well rewarded. A. B. Essex.

SNOWDROPS FROM SEED.

It is not generally known by amateurs that Snowdrops of much greater beauty than our common Snowdrop, lovely though it is, have been raised from seeds, and that, by the aid of species other than Galanthus nivalis, the common one, as parents, some charming hybrids have been given to the world. This is quite in accord with Nature's ways, as it is known that some of the wild Snowdrops from the East are hybrids between two species which grow together in a wild state. We are thus justified in considering that where Nature has already worked

to advantage we may accomplish something also, and that our greater command of flowers of various districts may afford us better opportunities for hybridising than exist in any part where two species of Snowdrop occur and hybridise naturally. Then we can use less haphazard methods than are supplied by the winds and the insects, and can thus achieve greater results.

How to Hybridise.

When the Snowdrops are in flower, the pollen from the finest forms, or from some of the other species, can be transferred by means of a camel-hair pencil to the one chosen as the seed-bearer. The anthers from the intended seed parent must be removed early, before the pollen cells burst. Some do not take the trouble to remove these, but simply transfer the pollen from flower to flower. Always, however, select the finest plants for the object you have in view; if for greater size of flower, employ blooms of the largest size; if for taller stems, the plants which rise above their neighbours, and so on. In selecting the parents for the hybrids, other features have to be considered, and excellent results have been derived from crossing Galanthus Elwesii and G. nivalis with G. plicatus, the Crimean Snowdrop. G. Ikariæ and G. plicatus make good hybrids, especially for leaf effects; but the best forms of G. Imperati should be employed more than they have been. G. Elwesii and G. plicatus give hybrids after the fashion of G. byzantinus, a natural hybrid, by the way.

Saving the Seeds.

Seeds should be saved when the capsules give signs of dehiscence, and a little experience will soon tell when is the best time. As a rule, the leaves are turning yellow about this time and the flower-stems bending towards the ground. A little yellowing of the pods also takes place, and when this is seen it is a good opportunity for the gathering of the pods. They ought then to be spread out on sheets of paper in a dry and airy place, and, when the seeds can be removed from the pods, which will be almost immediately if they are ripe enough, they may remain for a week or so to ripen thoroughly.

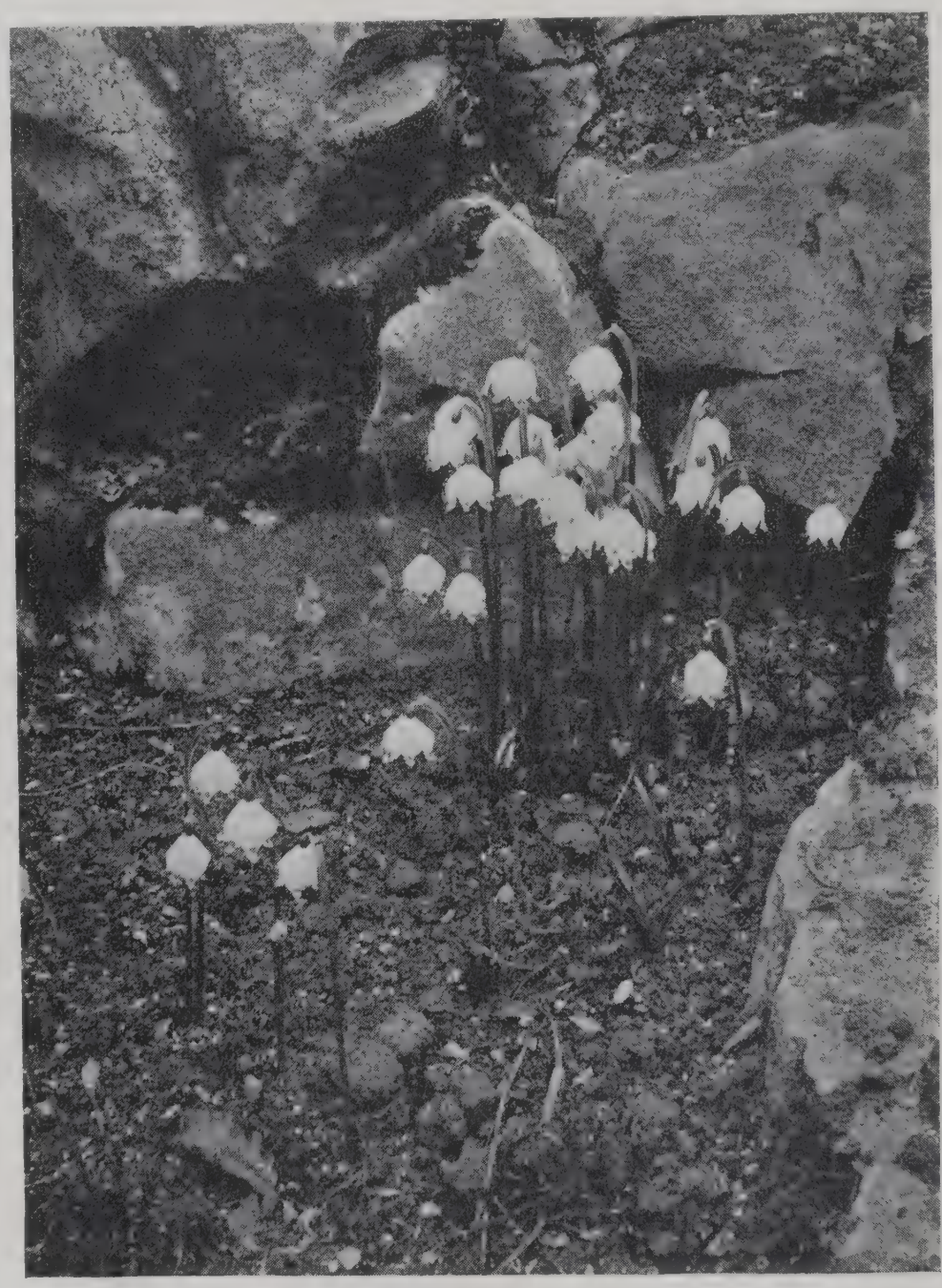
Sowing the Seeds.

It is a mistake to allow the seeds to remain until spring or autumn, as they ought to be sown as soon as they are ripe. This will save a considerable time. Sow the seeds in the open ground in little drills about a quarter of an inch deep, cover with fine soil, and then slightly shade from the sun. The resulting seedlings, if sown thin enough, can remain until they flower.

Sowing in Boxes.

A larger percentage of seedlings will be obtained if the seeds are sown in shallow boxes. Strips of wood ought to be nailed on the bottom to keep the box off the ground, and a number of holes bored in the bottom to allow the water to drain. Over the bottom should be put about an inch of drainage, and the remainder of the box filled to within 1½ inches of the top with sandy soil, in which a little charcoal may be mixed to keep it sweet. The seeds should be sown in little drills about a quarter of an inch deep and covered with fine soil. Put the boxes outside in a shady place, but free from overhead drip, and allow them to remain exposed to all weathers. The seedlings will appear, or a proportion of them, the following spring; but it may be two or even more years before all germinate. They may remain in the boxes until they flower, which will usually be from three to five years after germination. They improve much, as a rule, as the plants grow stronger, but they should be lifted from the boxes when in flower and the most promising put by themselves for comparison and selection. It is desirable to put a little top-dressing of fine sandy soil on the top of the boxes each season when the seedlings are at rest. Of course, the bulbs may be lifted from the boxes when they are at rest, but they move quite well even when they are in bloom. It may be added that the young Snowdrops do not show their best characters until they bloom for the third or fourth time. This may, perhaps, seem a long time to wait, but there is always something of interest to look forward to, and the ardent raiser of new plants should possess at least an average amount of patience. Such are some practical methods followed by the best raisers of the Snowdrop, and these the writer has confirmed by his experience. After the first few years the steady increase of the number which come into flower will bring with it a greater zest for the continuation of a most fascinating work.

GALANTHUS.



LEUCOJUM VERNUM CARPATICUM IN THE ROCKERY.

SPRING SNOWFLAKES IN THE ROCK GARDEN.

Although Spring Snowflakes are not so extensively cultivated as many other bulbous plants, yet there can be no doubt that they are among the most delightful flowers of the early season. In the accompanying illustration may be seen a pretty cluster of these flowers growing in partial shade in the rock garden. The variety illustrated is one of the most precious in cultivation. It is named Leucojum vernum carpaticum. It comes from Transylvania, and is synonymous with the variety Vagneri, which was figured in The Garden for March 13, 1909, as Vagner's Spring Snowflake. Why the Spring Snowflakes are not more widely cultivated it is hard to tell, for they lend themselves to naturalisation in grass quite as well as Daffodils, Crocuses or Snowdrops, which are now so widely grown. Moreover, the Spring Snowflake thrives under the shade of trees, and, as already pointed out, is quite at home in the rock garden. Seeds are freely produced, and it is quite a common occurrence for seedlings to appear round about established clumps.

THE NEW SAXIFRAGA BURSICULATA.

This beautiful and free-flowering hybrid is the result of crossing S. burseriana major and S. apiculata, the former being the seed parent, the latter the pollen parent. It was raised by Mr. E. H. Jenkins, Hampton Hill. The new-comer possesses the finer attributes of both parents—the silvery grey of the seed parent in conjunction with the great freedom of growth and profuse flowering of the pollen parent. There is also seen in the hybrid the somewhat remarkable distribution of influence of both parents. For example, the 3-inch high peduncles and clustered sprays of blossoms show the unmistakable influence of the pollen parent, the exceeding purity of the flowers evidencing that of the seed parent. Hence is seen in the flower sprays and their method of production the inherited influence of both parents. From these points of view the plant is of interest to the student and the hybridist. To the gardener, however, the chief merits of the plant will be found in its early and free flowering and its vigour of growth. In proof of this latter it may be stated that the specimen illustrated on page 155, which completely filled a 6-inch pot, was but four years old.

S. bursiculata was exhibited by Mr. Jenkins on February 28th last before the Royal Horticultural Society, when it received an award of merit by a unanimous vote, and created a great deal of interest. It is not often that a new hybrid of such merit is seen. The stock, we are informed, has passed into the hands of Messrs. R. W. Wallace and Co., Colchester, for distribution.

COLOURED PLATE.

PLATE 1422.

THE NEWER MONTBRETIAS.

EVERYBODY who gardens at all must have been acquainted at some time or another with the older forms of the Montbretia, their slender sprays and long, more or less tubular-inclined blossoms, which, never expanding to their fullest possible extent, preferred, apparently, that their light should remain, as it were, "under a bushel." To-day, as for a year or two past, this is an impossible thing, since we are brought face to face with a quite new and modern race of these plants, which, having thrown off the old yoke of bondage, reveal their fullest merits to all whom it may concern. Incidentally, too, this new state of things has added a greater wealth of flower-beauty to our gardens than would at first appear, since instead of the more tubular blossoms of former days, the inclination of the flowers of the modern race is to expand laterally, thereby creating a spectacular display of colour of which a few years before we had not even dared to dream.

Thus the raiser of such forms, while developing and expanding the flower to its utmost limits, has also placed it on a much higher pedestal than it was before, and, having by the same mystic wand imparted to it a decorative value of its own, has rendered it among the indispensable flowers of the year—indispensable because of their colour, warmth and distinguished bearing in the late summer and autumn garden.

It is in the garden where they appeal to one most strongly, and where the colour of leaf and stem and blossom combine to create pictures of their infinite wealth of beauty and charm. It is in the garden, too, that the elegant grace and profuse flowering of these plants are seen to advantage, and where the value of the greater stature and vigour—conspicuous attributes of the modern Montbretia—are also seen.

For much of the beauty and vigour of this vastly-improved race our gardens are indebted to Mr. Davison, Westwick, near Norwich, who for years past has interested himself in these plants. Close observation, too, has caused him to evolve a common-sense method of cultivation well suited to the requirements of the plants. For example, in place of the old method of leaving the plants to form clumps in the border, the whole of the stock is lifted each year so soon as this is deemed expedient after the arrival of early frosts. Subsequently the plants are cleaned, dried and rested in a frost-proof shed or similar place for the winter, very much on the same lines as the Gladiolus is treated for commercial purposes. From out of this very simple method of treatment are obtained the finest vigour of growth, freedom from disease, and the most abundant flowering I have seen, a method so simple, that it may be followed by all. Not only are the plants rested, but an opportunity is afforded for cleaning, manuring and otherwise preparing the ground for another season's crop, the soil meanwhile being prevented from becoming bulb-sick. Added to this method of lifting is the isolation of the plant when again transferred to the soil, for to the individualising of the plant is traceable much of the vigour to which I have referred. It is precisely the same method of culture which permits of the planting of dry roots in March and April, and which give such excellent results.

In the coloured plate in this issue will be found the varieties King Edmund, Lady Hamilton and Lord Nelson, other excellent varieties are Westwick, Hereward and Prometheus, the last the giant of the race in stature, giving deep orange, crimson-eyed flowers 4 inches across. Those who desire to make garden pictures for themselves should apply to Messrs. R. W. Wallace and Co., Colchester, from whose flowers the drawing was prepared and to whom our thanks are due.

THE ROSE GARDEN.

ETOILE DE FRANCE AS A FORCING ROSE.

WHATEVER may be the merits or demerits of this variety outdoors, it has a special value to the grower of forced Roses. And with such a dearth of good crimson varieties we cannot afford to ignore it. I have been rather surprised that market growers have not taken this Rose up for this purpose, for no one who has seen it at its best can deny its rear beauty, both of colouring and form, and, I would also add, fragrance. It is a splendid upright grower, with a branching habit resembling its seed parent, Mme. Abel Chatenay, and when it is known of what parentage it is this should in itself be a great recommendation. Probably there is no forced Rose to-day of greater reputation than "Chatenay," which is evident from its curtailed name and the high prices good blooms will secure. All I have to say against Etoile de France is its tendency to mildew; but I do not think any florist worthy the name will allow this to influence him in any way, because the remedies for this pest are happily now so complete. It may be that in a few years we shall have quite an array of crimson and even scarlet Roses specially suitable for forcing, for raisers have long been working to this end, and they have secured some notable results.

Messrs. McGredy's Edward Mawley bids fair to outshine all Roses of this colour at present raised Then we have M Pernet-Ducher's Lieutenant Chauré, which will, I believe, supersede Richmond; and Messrs. Soupert et Notting's George Reimers, a variety even more brilliant than Richmond

Both Messrs. A. Dickson and Sons and Mr. Hugh Dickson have some grand novelties in vivid colours, such as Leslie Holland and Henry Machin, which will add still further to this particular group; and among Hybrid Perpetuals, a group so very useful for cool-house culture, we have Mme. Constant David, a variety of Ulrich Brunner habit, but of a velvety crimson colouring; and Commander Jules Gravereaux, a huge Pæony-like flower, the edges of the petals prettily indented, and of a fiery red colour with velvety shading. Many, if not all, of these novelties are noted for their fragrance, so that growers of forced Roses have an infinite variety to draw from, which should make this branch of floral art still more delightful. P.

TREES AND SHRUBS.

A LITTLE-KNOWN HARDY PLANT.

(Perovskia atriplicifolia.)

This interesting sub-shrubby plant has within the last few years made some considerable headway in gardens, and it may be met with as a group in the herbaceous border or the shrubbery, for it is fitted for both positions. Growing from 2 feet to 3 feet high, it forms an upright plant with greyish stems and leaves. The latter are from 1 inch to 2 inches long and up to three-quarters of an inch wide, each having a saw-like margin. The flowers are borne during August and September in large inflorescences, which form the upper half of the shoots matured during the current year. They are blue in colour and much like those of the Lavender in shape. The plants ought to be cut well back in spring in order to secure good strong shoots for the flowering-time in autumn. Like many other plants which belong to the Order Labiatæ, this one is attended with a decided perfume. Cuttings of young shoots inserted in sandy soil in July may be expected to form roots in a few weeks' time, while in two years from the time the cuttings are inserted strong flowering plants may be obtained. The species is found wild in the Himalayas, and may be grown in ordinary garden soil D.



THE NEW HYBRID SAXIFRAGA BURSICULATA.

VITIS THOMSONII.

THOSE who do not possess this new ornamental vine have had several opportunities of seeing it in good condition during the last few years, for it has frequently been on view at the Royal Horticultural Hall and at other exhibitions since it was awarded a first-class certificate as a new plant when exhibited by Messrs. Veitch on September 1, 1903. Like the majority of recent introductions, it is a native of China, whence it was introduced ten or twelve years ago. It is one of the group which is characterised by the leaves being divided into several leaflets, the number in this case being five. The central or largest one is up to 3½ inches long by 1 inch in width, the remaining ones being somewhat smaller. The upper surface is dark green, stained with purple, the under surface being of a deep purple hue. This colour is retained throughout the summer, but in autumn a reddish tinge is introduced previous to the leaves falling. It may be planted wherever the other ornamental vines thrive, and may be expected to give the most satisfactory results if planted in rich, deep, loamy soil. D.

THE GREENHOUSE.

IDEAL GREENHOUSE PLANTS: ACHIMENES.

ALTHOUGH the Achimene is classed as a stove subject, one that requires a fairly brisk heat and rather liberal atmospheric moisture, it is, really, an ideal plant for the greenhouse in the summer-time. I have grown dozens of pans and pots of the plants under Roses on the north side of a 60-feet span-roofed house; of course, there was considerable shade, but as the plants were only placed in the position just prior to the first flower-buds opening, they seemed to like it, as the blooms lasted a long time in good condition, and were highly coloured. Too much exposure to brilliant sunshine lessens the richness of the colours. Not only are these fine pot and pan subjects, but they are also most satisfactory when grown in baskets.

PRESENT TREATMENT OF YOUNG PLANTS.

If the young plants are now growing in small pots, they must be repotted before they become at all pot-bound, else premature flowering will be induced. Some cultivators use peat in the compost; but I would not use more than a very small quantity in any circumstances, and none for plants grown in baskets. I prefer some sweet leaf-soil—a little more than half-decayed—to mix with some very fibrous loam which has been cut and stacked for at least three months. When repotted, water the plants very carefully and shade them from bright sunshine for a time. A warm frame is a suitable place for the plants almost up to the flowering stage. Young plants growing in large pots or pans in which they are to remain to flower also require to be very carefully watered so as to avoid making the soil sour. The points of the shoots may be pinched off to induce a branching habit, but this is obtained at the expense of size in the flowers. No attempt must be made to feed the plants before they are well rooted and bear flower-buds. The soil in baskets becomes too dry at times, and then the best way of dealing with it is to immerse the whole basket in a vessel of water for several hours.

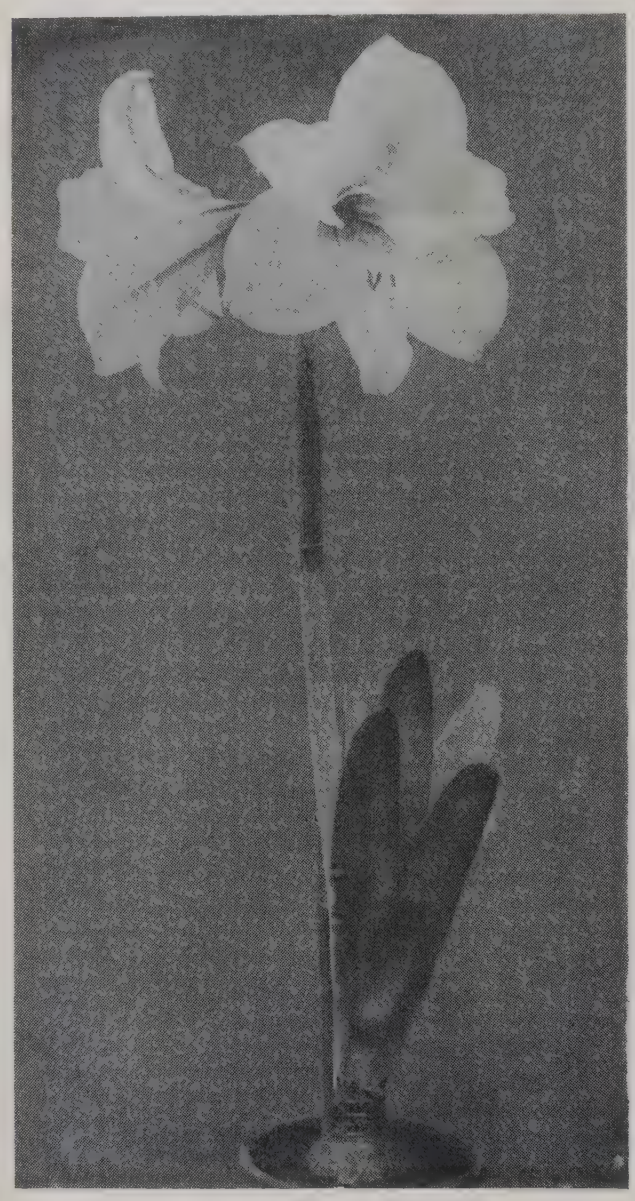
SOME CHARMING VARIETIES.

Dazzle, Ambroise Verschaffelt, Firefly, Diadem, Grandiflora, Loveliness, Rose Queen, Mauve Perfection, Mauve Queen, Rosea magnifica, Gloxiniæflora, Harry Williams and Pink Perfection. AVON.

A WHITE HIPPEASTRUM.

(HIPPEASTRUM QUEEN MARY.)

ALTHOUGH this is not the first white Hippeastrum or Amaryllis that has been raised, yet at the same time it is a very handsome variety and worthy of special note. There is nothing which so much detracts from the beauty of the modern Hippeastrum as the green "eye," so often to be seen at the base of the flower. In the variety Queen Mary this failing, although not eliminated, is certainly very much reduced. The flowers are bold and of good size, measuring about 8 inches across. It was shown at a recent meeting of the Royal Horticultural Society by Messrs. R. Ker and Sons,



THE NEW WHITE HIPPEASTRUM QUEEN MARY.

Liverpool, when it was granted an award of merit by the floral committee.

THE TOWN GARDEN.

PLANTING ROSES.—If the best interests of the Rose were consulted, not to say the expert cultivator of the flower, there would not be wanting broad hints that the planting of such things should have been completed some time ago, with which dictum I readily concur. I have, however, a special reason for referring to this phase of the subject now, inasmuch as a not far removed neighbour who has a small town garden recently purchased and planted some standard and other trees. The other day the idea of pruning them came along, and the gardener—one of the feminine order, by the way, and therefore not specially endowed muscularly—nearly pulled the plants out of Mother Earth in the process of pruning the plants. It appeared to be through no lack of skill on the part of the operator referred to, nor to the exercise of great strength, but was entirely due to a planting error. Instead of a reasonably-sized hole, a shallow, saucer-like depression had been made, so shallow, indeed, that the roots were in effect on the surface of the soil, and no plant could possibly succeed in such circumstances. Such planting as this constitutes

A GRAVE FUNDAMENTAL ERROR, and must at all costs be avoided. Such errors concern not Roses alone, but all classes of trees and shrubs, and not infrequently nurserymen are held to blame for the death of trees of all kinds planted on these or similar lines. The depth to which a tree or shrub may be planted is usually indicated by the plant itself, and amateurs who do their own planting should study the soil-marks on the stems of plants and act accordingly. In many instances it may be too late to rectify the error this season, though freshly-introduced specimens would receive no harm.

PROPAGATING DAHLIAS.—These plants should now be brought into the fullest light and, if possible, given a position not far removed from the glass in the greenhouse. Should the plants have been beneath the stage and some of the early shoots have become drawn and weak, these had better be removed at once. Arrange the old plants in boxes, afford them a little soil to cover the roots, and await the coming of sturdy 3-inch-long shoots to insert as cuttings. Detach such as these with a sharp knife immediately below a joint, and insert them singly in small pots. Afterwards arrange them under a hand-light or frame to keep close till rooted.

TUBEROUS BEGONIAS.—The large tubers of these should be potted into 5-inch or 6-inch pots so soon as they are strong enough, and, steadily pushed along, such as these will make excellent specimens for the decoration of the greenhouse in June. These early-breaking, strong-growing types not infrequently represent those with coarse blossoms, but they are showy, notwithstanding, for the purpose indicated. Later-starting tubers should be well looked after, for these are usually of a higher standard of excellence, and certainly more desirable. A temperature of 50° will be found suitable for the plants, which should be watered with care.

INCREASING FUCHSIAS.—The present is an excellent time to insert cuttings of these plants, which root freely and well if planted in pure sand or very sandy soil. The young, freshly-made shoots of 3 inches in length now upon the plants make capital cuttings if torn off with a heel attached, this being secured by a sharp downward pull. Cuttings of a soft-wooded nature, like the Fuchsia in a young state, require to be kept in a close frame in the greenhouse or under a bell-glass, and, occasionally watered, will form root-fibres in the course of three or four weeks.

FORMING STANDARD FUCHSIAS.—Where it is desired to produce standard plants of these, the same principles of propagation will suffice if the strongest cuttings are selected. During recent years tall standard Fuchsias—those having stems 4 feet or so in height—have been much sought after, and in summer-time in certain phases of outdoor gardening they are very effective. When the young plants are well rooted they should be potted singly into 5-inch pots, employing rich loam, leaf-mould and manure. Upon no account should the plants receive a check to growth. A tall, straight stick should be placed to each plant to keep it upright. Later on the plants may be potted into 6-inch pots and grown erect until the required height is reached, when the point should be removed. S. N. N.



THREE NEW MONTBRETIAS.

KING EDMUND.

LORD NELSON.

GARDENING FOR BEGINNERS.

DISBUDDING GRAPE VINES.

IT is reasonable to assume that beginners in Grape culture have taken every care to follow the directions given in the columns of THE GARDEN from time to time during the past months. Now that the work is becoming more interesting as the season advances, it is of the highest importance that no risk shall be taken of jeopardising all the work and preparations of the past.



1.—VINE SHOOTS READY FOR DISBUDDING.

At this period, when the Vines are developing their growths in a vigorous manner, the question of disbudding or thinning out the lateral growths should be attended to. Disbudding is generally considered to be the rubbing out of superfluous young buds or shoots, and this is a detail of Vine culture that needs to be looked into at once by every novice who is the possessor of a Grape Vine.

In many establishments one lateral growth is retained at every 15 inches or so on each side of the main rods, and this is ample for most purposes. There is a considerable risk of the growths smothering each other when they are left closer together. It is customary, in ordinary circumstances, to retain one good growth on each spur. It is the practice in many gardens to allow a short cane to evolve lateral growths at a closer distance than a long cane; but in ordinary cases the distance varies from 1 foot to 18 inches apart. For this reason I mentioned 15 inches as being a popular rule to observe. Beginners who pruned their Grape Vines during the past winter will remember that the side shoots, which are known as spurs, were cut back to two buds. Generally speaking, one bud would be sufficient; but it is considered well and preferable to leave two buds until growth has developed at a subsequent period. The object of leaving the two buds becomes apparent so soon as it is possible to determine which of the two will give the better bunch of Grapes, and then the less promising one of weaker growth must be pinched out or removed at once.

Fig. 1 is an illustration of a portion of an old Grape Vine, in which are shown two growths that have developed close together. In both instances the growths are strong and vigorous, and if both were allowed to develop there is little doubt that they would very soon become unduly crowded, and would both suffer in consequence. Means should be taken in such circumstances to remove the least promising of the two growths as early as possible. In order to simplify this point for the novice, in Fig. 2 the same section of the Grape Vine as is represented in Fig. 1 is shown, but in this case the Vine has been disbudded. To appreciate fully what has been done in this act of disbudding, the reader should make a comparison between the two illustrations. A close inspection of the details will reveal the fact that the less promising growth has been pinched off, thus concentrating all the energies of the Vine on the development of the growth that is retained. Pinching off the growths with the finger and thumb, whenever practicable, is preferable to the use of the knife.

Disbudding should be a gradual process. From time to time it will be found necessary to remove offending growths, and this work should not be left over until the rods experience a check. The wholesale removal of the growths should never be contemplated or practised. The systematic pinching off, and also the stopping of a lateral growth, are done not only to encourage the weaker shoots to develop satisfactorily, but also to stimulate root action. Another simple, yet important, detail of culture to be observed just now is the stopping of the lateral growths. On no account should the laterals be permitted to grow on in an unrestricted manner; on the contrary, they should be kept well under control. The points of the growths are sometimes disposed to run wild. Occasionally, through neglect, the growths get over-long, and to pinch back or stop the points to the required length at one operation may cause a most undesirable check.

The usual method of stopping the laterals is to pinch off the growth two or three joints, or leaves, beyond the bunch, as depicted in Fig. 2. The leaves that are retained will assist the fruits to swell so long as they have ample space and light to develop. Sub-lateral growths, *i.e.*, young shoots that develop in the axils of the leaves, should be stopped at the first leaf as fast as they evolve.

D. B. CRANE.



2.—SAME SPUR AFTER THE OPERATION.

FUCHSIAS IN THE FLOWER GARDEN.

LAST summer was favourable to the growth and flowering of the above plants, and there are few more attractive beds in the flower garden than those filled with well-grown Fuchsias, either alone or associated sparingly with other things. There was a tendency at one time to overcrowd the tall standard plants, but this has been abandoned in favour of thinner planting, thus showing off the groundwork to great advantage. An excellent bed is the result of specimen plants of Ballet Girl, the well-known double white corolla variety, on a groundwork of Alice Hoffman, also white, but single, a dwarf sort little more than 1 foot in height and very free. Both Abundance and General Roberts hold their own in the dark section. For outdoor work a silvery-foliaged plant of dwarf habit forms the best groundwork for these. A very pretty and graceful Fuchsia is the variegated form of gracilis, and last season it did remarkably well. Insignificant so far as the flower is concerned, the habit of the plant and the bright pleasing variegation are both excellent features. Nice symmetrical specimens nearly 3 feet high and half as much in diameter show off to great advantage against a bright dwarf carpet. Nothing is better for this than Begonias, of which Lafayette and Count Zeppelin in scarlets and Major Hope as a pink can be specially recommended. I look upon Begonia Major Hope as absolutely the finest thing we have for the summer flower garden.

A. G. B.

DAFFODIL NOTES.

DAFFODILS AT VINCENT SQUARE, MARCH 14-15.

(*Continued from page* 144.)

I DEALT last week with the excellent exhibit of Messrs. Cartwright and Goodwin, which, as I then stated, obtained the highest award of the show for a group of Daffodils. Following on in the order of merit as adjudged by the Narcissus committee, I now come to the fine collection of Messrs. Barr and Sons, which received a silver Flora medal. Perhaps a digression here to briefly explain what the various medal awards mean may be instructive and useful to readers who are unfamiliar with the Royal Horticultural Society's ways. If this is grasped, the relative value of the exhibits is at once known. There is, to begin with, a three-fold division—gold, Flora and Banksian medals—and the last-named two are further sub-divided into silver-gilt, silver and bronze. Thus, arranged in order of merit, the medals are as follows: Gold, silver-gilt Flora, silver-gilt Banksian, silver Flora, silver Banksian, bronze Flora and bronze Banksian.

In Messrs. Barr's group there were a number of handsome yellow trumpets and yellow cups, mostly single blooms and obviously new seedlings. One or two of these were quite good, and will certainly be named later on. The flower that attracted everyone's attention was a very remarkable giant Leedsii, Patrician. The perianth was broad and overlapping, and measured 3⅞ inches in diameter. It had great substance and was of a delicate ivory white shade, which harmonised with the pale citron of the cup. This was 1⅜ inches deep and 1½ inches in diameter at its apex. It was essentially a "show" flower to "its finger-tips." There were also two good white trumpets in Lady Audrey and Mrs. G. H. Barr. This latter has a decidedly narrow trumpet, which widens a good deal towards the brim. The campanulate perianth is 3½ inches across, and the trumpet 1½ inches long. I intend to give a fair number of measurements this season, as I think it helps readers a good deal in forming a mental picture of the bloom described. Minerva was one of the new "quite round" type of Poets. This race is distinguished by the round contour of its flowers and its roundish, much overlapping perianth segments. As a rule, they are not the largest of flowers, but are very shapely, and the segments overlap so much that they seldom, if ever, "quarter," that is, show daylight at their bases. In Minerva the perianth was 2¼ inches in diameter. It is a long time since I saw Cœur de Lion to notice it. In a general way it might be said to somewhat resemble Castile. On this occasion it had a decided edge of green round the top of the cup—just such a green as one sees in those curious green-edged Auriculas. I imagine it must have been the effect of growing the plant under glass. I have never seen it in any other variety. Sans Peur was one of the early incomparables, which are just now very much to the front. Many of them resemble the old King of the Netherlands, or Princess Mary. Some have a good deal of red in the cups, while others approximate more to a self. Yellow Prince was another flower of this class. Practically a self, it has a perianth 3½ inches across and a somewhat irregular-shaped cup with a diameter of 1½ inches. With a bare mention of Red Beacon (a pretty starry flower), and Maid of Athens (a flower between Seagull and M. Magdelene de Graaff) I must pass on to give a welcome to

Mr. C. Bourne, the Daffodil son of the late Rev. S. E. Bourne, who for the first time put up an exhibit in London as a trader. He has settled down at Simpson, near Bletchley, where, I believe, it is his intention to grow Daffodils and other flowers. He staged a very nice collection, and was awarded a silver Flora medal. Among the novelties were Tritoma, a pendulous bloom with a rather narrow, star-shaped and somewhat reflexed white perianth, and a long, narrow, red cup—what I might call a top-row or mantel-piece variety; Lullaby (perianth 2½ inches across), a round-shaped, clear-eyed Poet; Omar Khayyam, a recurvus-looking bloom with a reddish eye and long segments, of which the inner three are narrower than the others; Orient, a good new Poetaz with an undulated perianth and a real red edge to the pale yellow cup; and Whitewell, a large, handsome flower of very great substance with a magnificent large, deep yellow, shallow cup, and ivory white, broad, overlapping segments. Of the older varieties mention must be made of Topaz and Robert Browning for their utility as pot plants. I have grown them both this spring, and I can recommend them. Topaz has the look of Una, a sort of small edition of it with a red cup. I like its quaint shape, and never know whether it reminds me most of a spider walking or a bird just a half-second before it alights on the ground. Robert Browning is after Firebrand, but it comes into bloom much later and is very useful for succession.

Messrs. J. R. Pearson and Sons of Lowdham had a fine display, mostly of older varieties. In a sense it was the play of "Hamlet" without Hamlet, for Mr. Duncan Pearson was too unwell to be more than a very short time with his flowers. Very many were the expressions of sympathy that I heard on all sides, coupled with the hope that the rest and change which he was going to take will soon set him up again. Heroine stood out by itself. It is an enlarged and a brightened Albatross, with a very white perianth measuring 3¾ inches across and a cup of pale lemon (1⅜ inches wide) with a wide ribbon edge of orange red. Another handsome flower was the white trumpet Florence Pearson. Its fine wide segments are very noticeable. If it is as good a grower in pots as experience has proved it to be in the open, it will, when plentiful, be a good addition to our best pot-work varieties.

Robert Sydenham, Limited, had a small but taking little group, which was awarded a bronze Flora medal. A single pure white triandrus hybrid named Lila occupied a prominent place in the centre. It had a slightly drooping habit, and in its general look might be described as a pure white Autocrat, with a perianth very nearly 4 inches wide. These hybrids are very beautiful indeed, and the Daffodil world owes a debt of thanks to Mr. Walter Ware for the encouragement he holds out to raisers by his gift of a challenge cup for them especially at Birmingham. Another single bloom that no one could help seeing was the big bicolor incomparabilis Great Warley. A perianth whose diameter is 4½ inches and a cup which is 1⅞ inches across at the top make a flower which is bound to be conspicuous.

Mr. F. Lilley had a little lot of open-air blooms, among which was a fine example of the yellow trumpet Excelsior.

Messrs. R. H. Bath, Limited, showed a large collection of Daffodils, Tulips, Hyacinths and Crocuses, all grown in fibre in bowls. The Poetaz Narcissus Aspasia was very effective. There is no doubt it is splendid for this purpose.

Messrs. Carter Page and Co. had many of the ordinary Daffodils and Tulips in quite low bowls, but here again there were no novelties.

The great show of Messrs. R. and G. Cuthbert, who had three-quarters of one end of the hall filled with a display of early-flowering Tulips, was exceptionally good, and later on the Editor hopes to publish an illustration of the exhibit, when I shall have something to say about it. JOSEPH JACOB.

THE KITCHEN GARDEN.

GROWING CARROTS ON EARLY BORDERS.

THE early Carrot as a spring and early summer vegetable is of much greater value than later in the year when it is larger. Many of the ordinary summer types have a large indigestible core, whereas the early Carrot is sweet, coreless, and an excellent vegetable. To do it justice it should have a warm border, rich friable soil, and be sown thinly, so that when thinning out is required all the early thinnings are used, and, this done, there is no waste. If a warm south border can be given, so much the better. I have for this crop in a heavy soil used burnt rubbish or wood-ashes largely; these are of great assistance in forwarding an early crop. Though the Carrot in a young state is much hardier than many people think, for a supply in advance of the early border it well repays for frame or glass culture. All varieties of the Short Horn type are of rapid growth, once they are well above the soil.

There is no gain whatever in sowing too early, as the seed in a cold soil is some time in germinating, and I have obtained much better results from seed sown in the early part of April than in March; indeed, to get a good supply of early, sweet, small Carrots I have sown several times from April till September. Of course, in the South even earlier sowings may be made. One of the best and most rapid growers is the Early Nantes, a longer root than the Parisian Horn and an excellent early variety. There is also an excellent variety grown under the name of French Forcing; this has a very short root with a small top, and is a rapid grower. There are other French types, such as Guerande, a stump-rooted early variety. Of home varieties we have Golden Ball (a very early form), Early Market (a good bunching variety), The Sutton Inimitable Forcing (a small, excellent globe-shaped root and one of the earliest to mature), Early Frame and others worth naming; but all the above are well adapted for early borders. G. WYTHES.

LEGAL POINTS.

Overhanging branches (*Constant Reader, Bath*). — When a person's garden is injuriously affected by the branches of his neighbour's trees overhanging his grounds, besides applying to the Court for an injunction and damages, he can in the alternative exercise the extra-judicial remedy of abatement. There is no need to give notice if he can cut away the offending branches by operating vertically on his own premises, at any rate from the legal point of view. If the object cannot be efficaciously accomplished without entry on his neighbour's premises, reasonable notice to abate the nuisance should first be given; and it should be further remembered that, when the party aggrieved operates on his own premises, the slightest movement beyond the boundary over his neighbour's land would technically amount to a trespass, unless justified by his neighbour's failure to abate the nuisance after notice.

Trees, highway (*Ash*). — The owner of premises adjoining a highway finds himself embroiled with the local authorities on the question of his bushes and trees overhanging the highway. Naturally, the owner's chief consideration is the amenity of his own private property; the authorities mainly regard the more or less chronic greasiness of the road; while pedestrians forced to walk close to the sides of the road by reason of

the traffic suffer certain annoyance from the projecting portions of the trees or hedge. The district councils through their surveyors have powers and duties under the Highway Act, 1835, &c. By Section 64 no tree, bush or shrub can lawfully be planted, after 1835, within 15 feet from the centre of any carriage-way or cartway. By Section 65, if the surveyor thinks that the road is prejudiced by the shade of any hedge or by any trees (except those trees planted for ornament or for shelter to any Hop ground, house, building or courtyard), he can initiate proceedings before justices and call upon the owner to show cause why the hedges are not "cut, pruned, or plashed" or the trees are not "pruned or lopped." Any order made must be complied with within ten days, or in case of default the owner forfeits a sum not exceeding 40s. The local authorities can further proceed to execute the necessary "pruning and lopping" and recover the expenses; but a surveyor has been held liable for trespass if he exceeds his powers of "lopping" and proceeds to "top" the trees.

BARRISTER.

A NEW ASPARAGUS KNIFE.

AMONG new garden tools the Asparagus knife illustrated herewith deserves a prominent position. As will be seen, it is of simple design, yet in actual practice it proves exceedingly useful and economical. Wielded with an average amount of care, this knife will cut heads of Asparagus without damaging the incipient shoots which are not visible. Its two cutting edges can be easily kept in good condition with an ordinary file. After thoroughly testing it we have no hesitation in bringing it before the notice of our readers. It is made by Mr. C. J. Beckett, Upwell, Wisbech.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

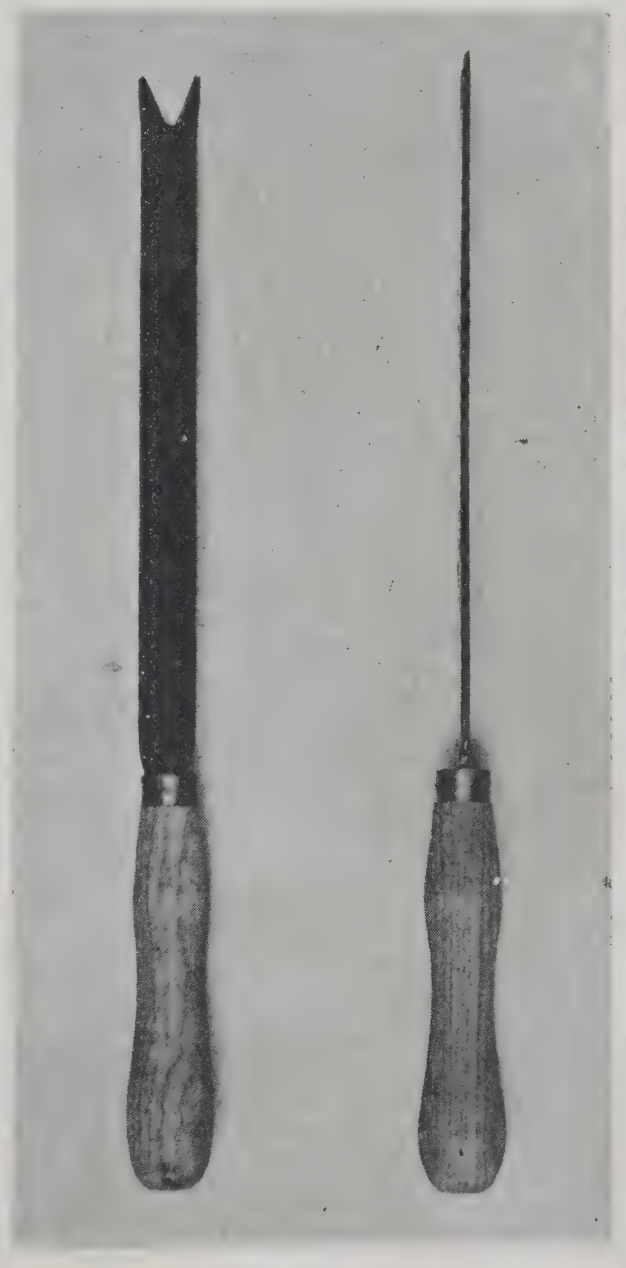
Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Injury to Violets (*E. L. L.*).—We are unable to discover any insects or fungus that can account for the death of your Violet foliage; but it would have been more satisfactory if you could have sent some of the foliage itself. There is nothing, apparently, amiss with the crown of the plant sent or with the roots. Have the plants been kept too close at any time? or has the condensed water from the inside of the glass been allowed to drip upon them? The soil seems suitable.

Violet leaves spotted (*Mrs. H.*).—The spotting of the foliage of the Violets is due to the attacks of the fungus Ramularia lactea. This may be kept in check if taken early enough by spraying with a solution of potassium sulphide 1 oz. to 3 gallons of water. But there seems also to be something wrong with the lower part of the Violets. They look as though they have been grown in an unsuitable medium. Perhaps the compost is not right for them, or the beds are not well drained. One, at least, of the plants sent appears to be an old one.

Bulbs splitting (*I.*).—We know of no way to prevent Tulip and Narcissus bulbs splitting. When Tulips and Narcissi are used for spring bedding, and it is desired to clear them out of the beds before they have attained their growth, to make room for summer bedding plants, this may safely be done with little or no harm resulting, providing that the following treatment is carried out. Lift each bulb carefully, see that each has a quantity of roots attached, and then replant in rows fairly close together in good soil in a shady



A USEFUL NEW ASPARAGUS KNIFE.

position. The bulbs will then complete their growth in due time, and will ripen perfectly during the summer.

Flowering plants for a dell (*E. S.*).—It is highly probable that such Irises as pallida, p. dalmatica, and the deep purple-flowering form of I. germanica known as atropurpurea might prove a success in the dell, though whether permanently would in a great measure depend upon the shade, the soil depth and other things. Fritillaria Meleagris in variety and Muscari conicum might also prove of value in or near the Daffodil season, but such things could not be planted now. Primroses, Winter Aconites and Lenten Roses are also suitable, and so, too, should be the Wood Anemones. The Vinca might run about quite well, but would flower sparingly in shady places. The whole of the perennials should be planted without delay, though we fear few flowers would be given by the Pyrethrums for at least a year from planting.

Snowdrop bulbs (*Jean*).—We understand that Galanthus Perfection is not yet on the market for sale; but it is possible that Mr T. Smith, Daisy Hill Nursery, Newry, Ireland, who was in communication with the late raiser of this Snowdrop, may have bulbs which he would dispose of. You might, therefore, communicate with him.

Use of a cold frame (*R.*).—The different plants named by you would be particularly liable to damp off in a frame, whether it is heated by manure or not. Of course, later on many bedding plants can be propagated and grown on a hot-bed, but they cannot be kept during the winter in a satisfactory manner therein. Unless the frames are heated by hot-water pipes, many plants are liable to damp off, however treated. Would it not be possible to arrange for a flow and return pipe around your frames? as the trouble would then be done away with. If the frames are in proximity to your houses and the boiler power is sufficient, this alteration might be done with but little trouble. Of course, even if cuttings of Geraniums and stock plants of different kinds are kept in a greenhouse, they may be so disposed that they are not unsightly; but this is very often a question of labour. A cheap dressing for lawns is sulphate of ammonia put on in February or March to the extent of 1lb. for 50 square yards. It is best applied in dull weather.

Flowering plants for grassland (*St. M.*).—It is hardly possible for you to provide a display of flowers in grassland from early spring to late autumn, for during summer the grass would become so long that the smaller autumn-flowering plants which you suggest growing would be quite hidden. You may, however, anticipate a fine display in spring, and another in autumn. This would give you an opportunity to cut the grass between the two seasons, which could be done after the ripening of the foliage of spring-flowering bulbs and previous to the growth of autumn-flowering Crocuses commencing. For spring you can have Crocuses, Narcissi, Daffodils, Chionodoxa and Scilla hispanica, with Snowdrops, Cyclamen, Anemone nemorosa, A. blanda, A. apennina, A. Pulsatilla, and perhaps A. fulgens in places where the grass is thin, such as occur beneath the branches of some trees. Colchicums and autumn Crocuses can be planted for the autumn display. The inclusion of a few clumps of strong-growing herbaceous plants, such as Spiræa Aruncus, Geranium pratense, Epilobium angustifolium, Aster acris and Anemone japonica, will give touches of colour during summer and early autumn. They, however, must be planted in masses, so that they are readily left untouched during the mowing. Planted singly they would have a spotty appearance, which in wild gardening must be rigorously avoided.

List of herbaceous plants (*J. F.*).—We think it will be of assistance if we give you a list of plants of varying heights. In arranging the border we would suggest that the plants be set out in lines of groups lengthwise, and not as solitary examples; that is to say, we would arrange three or five plants of a Pæonia in a group, setting the plants 18 inches apart so that a bold group of 5 feet or more across would result at flowering-time. In like manner we would arrange Delphiniums or Day Lilies, while of Michaelmas Daisies an even larger number of plants might be effectively arranged together. Where the plants are of more spreading habit, as Rudbeckia Newmanii, Pyrethrums, or Kniphofias, a slight modification of the system might be necessary, though even with these not less than three plants should go to form a group. Tall plants: Helianthus multiflorus, H. m. fl.-pl., H. m. giganteus, H. Miss Mellish, H. tomentosa, H. mollis, H. orgyalis, Bocconia cordata, B. microphylla, Lathyrus latifolius splendens and The Pearl; Aster Climax, A. cordifolius Diana, A. c. Ideal, A. c. Photograph; A. Novi-Belgii Wm. Marshall, Robert Parker, Top Sawyer, St. Brigid, St. Patrick and Pygmalion; Asters Novæ-Angliæ Melpomene, pulchellus, W. Bowman, Mrs. J. F. Rayner and Lil Fardel, with the new Aster Beauty of Colwall, would form a good set. Other tall plants should include Pyrethrum serotinum, Kniphofias in variety, Campanula lactiflora, C. pyramidalis, Spiræa venusta, Lilium pardalinum, L. Henryii and L. auratum platyphyllum. Hollyhocks would of necessity be included in a variety of shades of colour, while such Delphiniums as Lamartine, La France, Cantab, Amos Perry, King of Delphiniums, formosum, Chaucer, Claribel, Gloire de Nancy, Somerset and Electra are all good. Middle-height plants: Astilbe Davidii, Galtonia candicans, Anemone japonica, A. j. alba, A. j. rosea, A. j. Lady Ardilaun, A. j. Whirlwind, A. j. Queen Charlotte; Phloxes Mrs. E. H. Jenkins, Miss Pemberton, Jeanne d'Arc, Etna, Eugenie Danzanvilliers, Sylphide, Eclaireur, Sheriff Ivory, Meteor and Linneneaux; Lilies, such as Hansonii, tigrinum in variety, candidum, croceum, Martagon, speciosum rubrum, and s. album; Pæonies Festiva maxima, Albatross, Duchesse de Nemours, Marie Lemoine, Philomele, Surpass Pottsii, Reine de Roses, Progress, candidissima, Balfour, grandiflora nivea and Lady Carrington. To these should be added Pentstemon barbata, Incarvillea Delavayii, Aquilegia chrysantha, Helenium Riverton Gem, Aster Arcturus, A. Desire, A. Golden Spray, Day Lilies in variety, any of the varieties of Chrysanthemum maximum, Heliopsis and other plants. A dwarfer set should embrace Flag and other Irises, which occur in endless variety, dwarf Phloxes and Day Lilies, Rudbeckias, Heucheras, Aster Amellus in its best forms, A. acris, A. lævigatus, Megaseas of sorts, Sedum spectabile, Trollius, double crimson Peony, Gaillardias, Campanulas by the score, Anemone sylvestris and other plants too numerous to mention. A capital

margin to the whole could be made of a broad band of Viola cornuta atropurpurea, which is well-nigh perpetual flowering.

TREES AND SHRUBS.

Pruning Hydrangeas (*C. E. G.*).—Hydrangea quercifolia may have its shoots shortened about a third of the way back at once. H. mandschurica will require no pruning, unless it is at all ragged. In such a case shorten the wilder growths at once. The remaining kinds enquired about must not be pruned until the flowers are over. Pruning should then consist of the removal of the old flower-heads and the thinning out of the weak shoots.

Wistaria multijuga (*Collapit*).—There is no reason why your plants of Wistaria multijuga should not flower quite as freely as W. chinensis. We are personally acquainted with plants of the type and of the white variety which have blossomed well annually in the open ground for the last twenty years. The pergola facing south, where you propose planting it, ought to form an ideal situation. Loamy soil is suitable, but there is no necessity to make it very rich by adding manure. Two or three shoots may be allowed to grow up each post, and from them short spurry growths should be encouraged. From these flowers may be expected. The branches on the top of the pergola ought also to be kept spurred back after they have covered the necessary space. This may be done by shortening all vigorous growths during summer, and afterwards cutting all the shoots back to within a few eyes of the base in February. The more stunted the growth, the more flowers you will be likely to obtain.

Are Pine needles injurious in the soil (*I.*). The needles are not poisonous to the soil in which the Pines are grown, as it is a well-known fact that by the action and services of earthworms large quantities of them are drawn under into the soil, thus mechanically helping to secure its better aeration and also adding a certain amount of fertilising matter in the way of humus after decay has taken place. We can only say that we should be sorry to apply them to any crop which we valued, except as wood-ashes, after they have been burnt, wood-ashes being rich in potash.

Evergreen shrubs (*St. M.*).—As you appear to require a tall-growing evergreen, we should advise you to plant Escallonia macrantha, which would thrive excellently with you; or, if you prefer a white-flowered shrub, Myrtus Luma, or Eugenia apiculata as it is sometimes called, would be suitable. A mixture of the two shrubs might be advisable, for the light red flowers of the Escallonia appear during August and September, about the same time as those of the Myrtus. They could be arranged so that the Myrtus would stand behind the purple Veronica and the other Escallonia which you mention. They may be grown 9 feet or 10 feet high, or be kept down to 5 feet or 6 feet by judicious pruning.

About Berberis and Hydrangea (*J. B.*).—Berberis pruinosa may be described as sub-evergreen, for, while the leaves fall when a winter of ordinary severity s experienced, many of them are retained almost, if not quite, to the time when new leaves appear, when the winter has been mild. It is usually considered a deciduous shrub. There is certainly a difference between Hydrangea petiolaris and Schizophragma hydrangeoides, though the two plants are very similar in habit and the Hydrangea has been frequently distributed for the Schizophragma. The two generally are allied, and the great differences occur in the flowers. The most noticeable difference is seen in the shape and number of the bracts which surround the sterile flowers. Close observation will almost disclose differences in the size, shape and margins of the leaves. The stems of both plants are, however, of a scandent character, and bear aerial roots. Hydrangea scandens, on the other hand, is a synonym of H. petiolaris. It is possible that you possess both the Hydrangea and Schizophragma, and if you will send us good specimens of the two plants when they are in leaf or flower, we will have them carefully examined and give you the correct names. For many years a deal of confusion has existed regarding the three plants mentioned.

MISCELLANEOUS.

Injury to Primula leaves (*C. S.*).—The Primula leaves have been attacked by thrips. Fumigate the house with XL All, or some similar fumigant.

The parentage of popular Roses (*F. M. S.*).—We are not aware there is such a book as you desire; but we shall be publishing shortly an article dealing with this subject.

Larva to name (*S. C. S.*).—The grub sent is a larva of a two-winged fly, but as no information is given concerning its habits, and as the larvæ of so many are practically alike, it is impossible to identify it.

Mushroom-bed outdoors (*Fungus*).—Mushrooms cannot be grown outdoors in autumn and winter on unprotected beds. The probability is that, had you covered your bed over with dry littery straw or mats in sufficient depth to have maintained a temperature of 54° to 58° Fahr. on the surface of the bed, you would have had a crop of Mushrooms during the autumn and early winter. Mushroom spawn is hardy, and it is quite possible that the bed will yet yield a crop if you will cover it over with a sufficient depth of dry littery straw to raise the temperature on the surface of the bed to about 55° to 60° Fahr. To find out the temperature, place a thermometer on the surface of the bed under the litter. If Mushrooms do not appear in the course of three weeks after the temperature is raised as above, you may safely break up the beds and use the manure elsewhere.

Names of fruit.—*Pomme.*—Apple Roundway Magnum Bonum.——*Mrs. Clow.*—Apple Mère du Ménage.

Names of trees.—*Mauve Poppie.*—The tree of which you send a photograph is Abies Pinsapo; the other tree, of which you give a description, is probably Abies nobilis, though it is not possible to be absolutely certain without a specimen.

Names of plants.—*Sekhet.*—The specimens sent were too scrappy to identify.——*A. W. A.*—Cornus Mas, or Cornelian Cherry.——*M. J., Italy.*—Spiræa cantonensis. Yes; it would grow in Kent.——*L. F.*—1, Daphne Mezereum; 2, Skimmia japonica; 3, send in flower; 4, Andromeda japonica; 5, Cistus species, probably C. cyprius; 6, Elæagnus pungens variety; 7, Choisya ternata. ——*J. F. B., Ditchingham.*—Sparmannia africana, the African Hemp. —— *Grayshott.*—Garrya elliptica. —— *Neptune.*—Rhododendron formosum.

SOCIETIES.

NORTH OF ENGLAND HORTICULTURAL SOCIETY.

THE first monthly meeting of this society was held on Wednesday, March 22, in the Emmanuel Hall, Leeds, and it promised well for the continued success of the monthly meetings. All the available space was filled. The chief exhibits were Orchids, Amaryllis, Carnations and Primulas.

A large gold medal was awarded to Messrs. R. P. Ker and Son, Liverpool, for a superb collection of Amaryllis.

Messrs. W. Cutbush and Son, Highgate, London, received a gold medal for Carnations and hardy flowering shrubs.

Messrs. W. Artindale and Son, Sheffield, staged an attractive group of Primula obconica grandiflora, and received a large silver-gilt medal.

A collection of Narcissi, Tulips, Chionodoxas, &c., was staged by Messrs. R. H. Bath, Limited, Wisbech, and received a large silver medal.

Messrs. Young and Co., Cheltenham, were awarded a silver medal for Perpetual-flowering Carnations.

Messrs. Mansell and Hatcher, Rawdon, York s showed a large group of Orchids, and were awarded a gold medal.

Messrs. Charlesworth and Co., Hayward's Heath, staged a collection of Orchids, and received a large silver-gilt medal.

Messrs. Cypher and Sons, Cheltenham, staged Orchids, and were awarded a large silver-gilt medal.

Other awards were: Messrs. H. A. Innes, Darlington, large silver medal for Orchids; J. H. Craven, Esq. (gardener, Mr., Corney), silver-gilt medal for Orchids; and Messrs. A. J. Keeling and Son, Bradford, silver medal for Orchids.

The awards for new or rare plants or varieties made by the North of England Horticultural Society are termed Northern Diplomas I., II., or III. Class in order of merit. The following were made:

NORTHERN DIPLOMA I. CLASS.

Messrs. Charlesworth and Co., Sussex, for Brasso-Cattleya Queen Alexandra superba; Messrs. Mansell and Hatcher for Odontoglossum Manselliæ (O. Vuylstekæ × O. harryana), and Messrs. Cypher and Son, Cheltenham, for Sophro-Cattleya Wellesleyæ.

NORTHERN DIPLOMA II. CLASS.

Messrs. Mansell and Hatcher for Dendrobium pluptonense. A similar award was made for Lycaste Gratrix. The latter also received a special cultural commendation. Major Rogerson, Harpenden (gardener, Mr. Price), for Odontoglossum eximium var. Lady Wilkinson; W. Mathieson, Esq., Horsforth (gardener, Mr. Gilchrist), for Odontoglossum Phœbe Glenburn variety; Messrs. Cypher and Sons, Cheltenham, for Cypripedium Bridgeri; J. H. Craven, Esq. (gardener, Mr. F. Corney), for Odontioda keighleyense var. gloriosa; Messrs. Bath, Limited, Wisbech, for Narcissus Poetaz Aspasia; and Messrs. R. P. Ker and Son for Azalea amœna Hinodegri.

Votes of thanks were accorded Mr. W. Schacleton for Orchids, Major Rogerson for Orchids, and Mr. A J. Hall, Harrogate, for Cypripediums.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

MR. J. WHITE (of Messrs. Sutton and Sons, Reading) gave a very interesting "Chat on Sweet Peas" before the members last week. It was illustrated by a number of lantern slides, several of which were taken in the new colour process. He dwelt upon the history of the Sweet Pea, the preparation of the ground, the time for sowing for exhibition purposes, the general cultivation, manuring and exhibition. The arrangement of the flowers in the garden and the harmonising effects of various shades of colour in house decoration were also referred to. A good discussion followed. A vote of thanks was passed to Mr. White for his clear and instructive lecture. Mr. Pope obtained a cultural certificate for a fine group of seedling Imantophyllums, and Messrs. Shipley and Haskett were highly commended, the former for a good spike of the same flowers, and the latter for a bloom of the curious Strelitzia Regina.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting of this association took place in the Abbey Hall on Monday, March 20, when Mr Alderman Parfitt presided over a large gathering of members. The lecturer for the evening was a former member of the association, Mr. W. P. Bound, one of the chief authorities on Orchid-growing in the country, his subject being the "Potting and Watering of Orchids." When it is stated that for many years Mr. Bound had charge of Sir Jeremiah Colman's world-renowned and priceless collection of Orchids at Gatton Park, it will be readily understood why the lecturer proved such an attraction. It would be impossible to deal with the subject within the scope of this report, but it will suffice to say that Mr. Bound, in the time at his disposal, gave his audience the full benefit of his wide experience in the treatment of these wonderful flowers. First, dealing with Cattleyas and Lælias and their hybrids, the lecturer gave the members the benefit of his valuable advice with regard to potting, stating, too, the ingredients of the compost proved by him to give the most satisfactory results. In referring to drainage, Mr. Bound drew attention to the part Orchids play in this direction by the medium of their roots. Watering and the withholding of water, the lecturer declared, was the most important factor of all, and oftentimes the cause of the troublesome diseases to which Orchids are subject. Dendrobiums (his favourites) were then taken up by Mr. Bound, Odontoglossums following and, finally, Calanthes, as being special favourites in the Reading neighbourhood. In the discussion which followed Mr. Bound readily answered all questions put to him by the audience. A vote of thanks, carried with great acclamation, concluded the meeting

BOURNEMOUTH GARDENERS' ASSOCIATION.

SIR DANIEL MORRIS, K.C.M.G., F.R.H.S., gave a most interesting lecture on "The Royal Horticultural Society" before a good attendance of members and the public on Tuesday, March 21. The lecture was illustrated by lantern slides showing excellent views of Wisley Gardens and of exhibits at the Royal Horticultural Hall, Vincent Square, Westminster. Sir Daniel is now chairman of the committee of the Bournemouth Horticultural Society, and is doing his utmost to help forward all matters connected with gardening in Bournemouth and district in the hope of making it a big centre of horticulture in the provinces. He is a member of the Council of the Royal Horticultural Society, and was formerly its treasurer. Sir Daniel first referred to the growth of horticulture during the past fifty years, to the advances made in science all over the world, and to the growth of trade in connection with horticulture during the same period. He said the Royal Horticultural Society had a good influence upon associations, such as the one in Bournemouth, throughout the provinces. In 1804, said the lecturer, the Royal Horticultural Society was started, but at that time it did not bear the Royal title. He referred to Mr. Wedgwood, of pottery fame, and friends of his, who met together in Piccadilly to discuss the question of forming a society to encourage the cultivation of plants, &c. This was the beginning of the Royal Horticultural Society, the Charter being granted in 1809. Sir Daniel made reference to the first president (the Earl of Dartmouth), to Mr. Knight (who followed, and in memory of whom the Knightian medal was struck), and to the late Prince Consort and his great efforts on behalf of the society. Sir Daniel made mention of the fact of his own journeys with others to Covent Garden Market in order to enlist the sympathies and help of influential persons in the gardening world on behalf of the society during its dark days. He alluded to the great help given by Messrs. H. J. Veitch, Bunyard, Sir Trevor Lawrence, Sir Thomas Hanbury and others, and also to the good work done by the Rev. W. Wilks. Sir Daniel traced the doings of the society at Kensington, its sixty years of good work at Chiswick, to its present abode at beautiful Wisley. He described the position of the gardens at Wisley and the work done in them, both by the society and, previously, by Mr. G. F. Wilson, also the efforts made to build the magnificent hall at Westminster, the purchase of the Wisley Gardens by Sir Thomas Hanbury for the benefit of the society, and the good work contemplated in the future in them. He drew attention to the efforts of Mr. Wilson to establish Lilium giganteum, to the fact that it was now established, and showed on the screen a photograph of the plants in full bloom. The numerous views of exhibits and features in the gardens at Wisley were greatly appreciated by the audience. Sir Daniel said that, as far as possible, plants were being grown in Wisley Gardens in a natural state; formality was avoided, and he strongly appealed to his audience to abandon formality in their gardens, however small they might be, and to adopt the system of growing plants in as natural a condition as they could. The president (J. H. Ralph Smythe, Esq.) occupied the chair, and both he and Sir Daniel were accorded a very hearty vote of thanks at the close of the lecture.

Splendid Cinerarias and Deutzias were staged by Mr. Pearce and Mr. G. Heath. One plant of Cineraria stellata exhibited by the former measured 4 feet in height and 4 feet across the head of flowers, a perfect specimen.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PRUNING, TRANSPLANTING AND PROPAGATION OF HARDY BAMBOOS.

WHERE the cultivation of Bamboos forms part of the regular work of the garden, April and early May are an important time for the gardener, as it is during that period that pruning, transplanting and propagation may be carried on most advantageously. After the advent of April, the earlier pruning is accomplished the better, for old growths need removing prior to the appearance of young culms. By cutting away the older shoots, more room is given for the development of young branches, and there is then no danger of an offensive note being struck by the mixture of dead shoots among the young green leaves. It is important, however, when removing these shoots that they should be cut out right to the rootstock, and not be left 6 inches or 8 inches long, as sometimes happens; for not only do such snags prevent the young culms from developing properly, but they form a harbour for rubbish and look very unsightly. A vigorous thinning out is the right line to adopt, for this, in addition to clearing the plants of dead wood, relieves the denseness of the clumps and allows the shoots to arrange themselves in a free and graceful manner.

The partial cutting back of shoots is not to be commended, except in a few cases mentioned later, for if branches of the taller-growing kinds are reduced in length, their beauty of outline is quite spoiled. Some of the dwarfer kinds may, however, be cut back every two or three years with profitable results, and when this cutting back is attempted the whole plant should be cut to the ground-line. Arundinaria pygmæa, for instance, may be mown off, and in a short time a mass of fresh young shoots will appear. It must, however, be mown over before the young shoots have made much progress. A. Kumasasa (Bambusa palmata) is also improved by being cut to the ground at intervals of three or four years, while such sorts as humilis, A. A. chrysantha and A. Fortunei may be treated in a like manner.

Transplanting is better deferred until May, especially if the clumps have to be broken up, for though at that period they commence to grow again quickly, division of the stools at an earlier date is often succeeded by a period of indifferent growth. As a rule, the outer portions of a clump are preferable to the centre for forming new plantations, and it is better to use several small pieces to form a fresh clump than to transplant one very large piece, for the centres of large plants often become very hard and dry, and it is difficult to thoroughly soak them after planting is over, which means that growth becomes poorer than it would otherwise be. Should the sections be dry when the divisions are made, it is a good plan to soak them in a tub of water previous to planting. Providing the soil is fairly good, trenching is all the preparation it will require for new plantations, but leaf-mould may be used with advantage at planting-time, and rotten manure may be so placed that the roots will find it in a few months' time; but on no account must it be placed in close contact with the roots. For several months after replanting care must be taken to water freely during dry weather, while a mulch of decayed manure and leaves will greatly assist in the production of new roots by keeping the surface soil moist and cool. When large clumps have to be transplanted, care must be taken to make the soil quite firm around the old ball, or the water will run off without soaking it. It is a good plan to make a few holes with a crowbar in such a ball, and make a basin of clay 3 inches deep round the margin. This basin may then be filled with water, which will gradually soak into the mass of soil and roots.

Whenever it is possible, seeds should be obtained for propagation purposes, but as this is frequently difficult, recourse has to be made to division. When a large number of plants of any one kind is required, the best plan to adopt is to divide a clump into small pieces, which should be potted up and stood in a warm and moist greenhouse until the pots are well filled with new roots and shoots are pushing vigorously. The branches in this instance may be cut back to within 3 feet or 4 feet of the base if room cannot be allowed for them to be left longer; but whenever leafy branches can be left, the plants start away more quickly. When well established the young plants may be hardened off and planted in nursery quarters for a year previous to being placed in permanent positions. When a few plants only are required, the stools need not be divided into such small portions,

and the sections, which will be larger and stronger accordingly, may be planted directly in the nursery if not required for permanent places. Should hot sunshine be experienced at the time, a canvas shading may be used with advantage for a few weeks. When seeds can be obtained, they should be sown in light, loamy soil indoors, and be covered with their own depth of soil. The seedlings ought to appear in a few weeks' time, and as soon as large enough to handle they should be potted singly in small pots. The first winter ought to be passed in a cold frame. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 10.—United Horticultural Benefit and Provident Institution Committee's Meeting.

April 11.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at 3 o'clock by Rev. Professor G. Henslow, V.M.H., on "The Origin and Structure of Aquatic Flowering Plants."

April 12.—East Anglian Horticultural Society's Meeting.

April 13.—Société Nationale d'Horticulture de France (Paris) Exhibition. British Gardeners' Association's (London Branch) Meeting.

Royal Horticultural Society's Gardens Club.—The annual meeting of the Club will be held at Wisley on Saturday, May 13. All members who can possibly attend are invited to communicate at once with the hon. secretary, Mr. R. J. Wallis, Newdigate, Dorking, in order that early arrangements may be made for conveyances and refreshments.

The Horticultural Club. — The next house dinner in connection with the Horticultural Club will be held at the Hotel Windsor, Victoria Street, Westminster, on Tuesday next, the 11th inst., at 6 p.m. After dinner Mr. Wilfred Mark Webb, F.L.S., will lecture on "The Brent Valley Bird Sanctuary." The lecture will be illustrated by means of lantern slides.

The Western Rose Society. — This flourishing Scottish society is holding an exhibition of Roses, Sweet Peas and Pansies at Gourock on July 22. We learn that the committee have arranged to hold this exhibition in the Gourock Kursaal, a hall which for lighting and floor space leaves little to be desired. New classes have been added, notably for decorative Roses, and the competition for the custody of the Dr. J. Campbell Hall Cup promises to be very keen among the amateurs.

National Carnation and Picotee Society (Southern Section). — We have just received the thirty-fourth annual report of this society, together with the schedule of prizes offered for this year's exhibition. The date of the show has been fixed for July 25, and it will again be held at the Royal Horticultural Hall, Vincent Square, Westminster, S.W. There are many classes open to amateurs only, and every inducement is offered for keen competition among both trade and amateur growers. Schedules may be had on application to the hon. secretary, Mr. T. E. Henwood, 16, Hamilton Road, Reading.

National Auricula and Primula Society (Southern Section).—Mr. Henwood, whose address is given in the preceding note, is also secretary of the National Auricula and Primula Society. The annual report and schedule of this society is now being sent out. The show will be held at Vincent Square on April 25 in connection with the Royal Horticultural Society's fortnightly meeting. Lovers and cultivators of the Auricula, Primula, Primrose and Polyanthus are cordially invited to join this society, whose aim and object is to encourage the improvement and extended cultivation of these beautiful flowers.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose William Allen Richardson with pale flowers.—In reply to "P.'s" article in THE GARDEN for March 25, I have found this Rose, in my light soil, greatly benefited as regards colour by a good dressing of chalk in addition to cow-manure each spring. Even last summer, when many Roses were pale in consequence of the lack of sunshine, William Allen Richardson did not suffer at all in that respect, but was quite a good golden orange. I was never able to accomplish this until I added chalk to the soil.—J. W. TROLLOPE, *Cobham.*

—— I have proved for several years past that the colour of the flowers of Rose William Allen Richardson, as well as of many other varieties, is greatly improved by giving the bushes a fairly liberal dressing of Wakeley's Hop Manure. I apply this after the pruning has been completed, removing some of the soil from over the roots, placing about three handfuls of the manure in the cavity, and then covering it over with soil.—J. C.

Federation of allotment associations. I was much interested in the letter from Mr. E. G. Morrell in THE GARDEN for April 1, and have long held the opinion that the various allotment associations in the country should be united in a federation which would be able to exercise its influence when necessary. If Mr. Morrell is able to get all the secretaries of allotment associations to unite with him in his proposed scheme, I feel sure that a great deal of help can be given to young societies. The Agricultural Organisation Society, Limited, is, of course, ready to assist in the registration of societies and to help them in every possible way. It is, in fact, in a position to obtain the registration of affiliated societies at a much reduced fee. I gather, however, that the Hillfields Association objects to the affiliation fee. Would it not be possible for the societies to become federated somewhat on the lines of the Union of Horticultural Mutual Improvement Societies inaugurated by the Royal Horticultural Society? Perhaps the Royal Horticultural Society itself would be willing to assist in the organisation of the societies, which are becoming very numerous throughout the country.—A GARDENER.

Failures in forcing Daffodils. — The remarks of your able contributor the Rev. Joseph Jacob respecting the immaturity of many bulbs are very opportune. Hyacinths are not, as far as my experience goes, well ripened, and, consequently, are not producing many exceptionally fine spikes of blooms this year. I purchased two lots of Narcissus bulbs last autumn; some were grown in Holland and the others in the Channel Islands. The bulbs of Emperor, Empress, Victoria and maximus in one batch were very large for each variety, and seemed to be far from ripe. I did not expect to have many flowers from these bulbs, but with the exception of the variety maximus, which has many flowerless bulbs, I have been agreeably mistaken. The largest bulbs of Emperor are producing three flowers each and of good substance, but their growth is most irregular and very slow. A cultivator recently showed me a very large batch of Hyacinths, and remarked, "I do not think much of them." I told him I suspected their unsatisfactory state was the result of the two bad seasons we have experienced. Furthermore, I notice that the result of feeding is, this year, to promote chiefly the growth of the foliage, and not to benefit the flowers in a corresponding degree.—G. GARNER.

Spring flowers at Hampton Court.—Two very early hardy flowers were, during the middle of March, exceptionally pretty at this famous public garden, the one being seedlings of Anemone blanda or hybrids, and the other the charming little Daffodil, Narcissus cyclamineus. The first-named, planted at the corners of a large shrub-bed and especially forming a carpet to Cornus Spæthii variegata, though yet leafless, gave a charming variety in floral colour—white, pink, rose, mauve, pale and dark blue, and other shades. These seedlings are indeed beautiful as well as hardy spring flowers, and quite outshine Hepaticas, close by, that have much less beauty. Everyone who loves early spring flowers should secure seed of these alpine Anemones and sow it at once in shallow pans or boxes on fine sandy soil. The early Cyclamen Daffodils were seen in large breadths fronting the Palace in the old private gardens, and were well sheltered by overhanging trees. The soil is sandy and porous; hence these charming bulbous plants do well on the flat, as, in some other places, they do on rockwork.—D.

Edging to Roses.—Some further answers to queries answered in THE GARDEN for March 18 may be of use. Edging to Roses.—Eighteen inches is none too much for one of the prettiest of edgings, viz., a double-row planting of Stachys lanata. If it is even something more than a double row, so as to cover spaces a little way inwards between the plants, it will be all the better. The soft grey of the woolly leaves is a charming setting to the Rose blooms, especially to those of white, pink and red colourings. It gives the beds a well-clothed appearance, and takes its place as an ornamental adjunct even more distinctly than the Pansies already advised. Moreover, it improves as the year advances, and by the time the Roses are in second bloom will be a complete mass. It can be left a second year, but is all the better for yearly replanting. To have the full beauty of the foliage, the flower-stems should be cut out early in June, when the plant will immediately respond by branching at the root and making quick new growth. Informal hedge for a kitchen garden.—Some years ago some kind of hedge was wanted on both sides when a double flower-border was made through some kitchen garden ground. Wishing to test the suitability of several kinds of shrubs, I planted Ribes, Guelder Rose, Tamarisk, Pyrus japonica, Lilac, Snowberry and Rhodotypos kerrioides. When they had been growing four or five years it was clear that Ribes and Guelder Rose were by far the best hedge plants, and I regretted having planted anything else.—G. J.

Sweet Violets.—A correspondent writing to THE GARDEN was in favour of denuding the plants of their foliage. If I remember rightly, he recommended the use of the scythe for this purpose. I do not think this practice will ever become popular with growers. The treatment appears altogether too harsh to be afforded to such a charming flower. The following incident may, however, be of interest to readers. It was told to me by a gardening friend, and I can vouch for its accuracy. A person living in the neighbourhood was suffering from cancer. Large quantities of Violet leaves had been used for the patient. Eventually all the leaves available in the garden had been used for this purpose with the exception of a frame of

Princess of Wales. With the consent and approval of my friend's employer, these plants were also stripped of every particle of their foliage. This occurred in December. The following spring these same plants provided a wealth of bloom, such as had never been witnessed previously in the gardens. The practice has, however, not been continued.—COLIN RUSE.

The new Primrose.—So few of the varied species of the Primula family which have come to us, and of late so abundantly, have the true Primrose habit of florescence that there is special pleasure in welcoming Primula Winteri for that very reason. No doubt when the novelty of seeing it has somewhat worn off, it will be regarded as an ordinary, though charming, species that offers good ground for the hybridist to operate upon. But whatever may be done in that respect, I trust no effort will be made to create out of it varieties that have the ordinary erect stems such as distinguish the majority of species. Being a Primrose, let it remain a Primrose; and if crossed at all, let it be solely by using pollen from some of our true garden Primroses, in the hope that whatever may arise from such cross, the true Primrose habit, which is so specific and so charming, will be fully retained. Also, it is hoped that no effort will be made to destroy the species' distinctive coating of farina, which renders it a fit companion in a leafy sense with the old Dusty Miller of Auricula gardens, but which is now seldom met with, at least in the South.—A. D.

Syringing Malmaison Carnations.—I quite agree with your correspondent Thomas Wilson that Malmaison Carnations require careful attention in the way of water; so does any other Carnation. I notice he goes on to say, "no water or moisture should be allowed to touch the foliage at this or any other time." I should be very pleased to know how he manages to keep down red spider and thrip without the use of a syringe. I may say that I have been growing Malmaisons for some years, and during the summer months have always used the syringe, with apparent benefit to the plants. In one bad case of red spider I syringed the plants as often as three times during the day, with good effect, as in about a week I cleared the spider without any injury to the plants. —JOSIAH SMITH. [In directing attention to my remarks on Malmaisons in a recent calendar, your correspondent Josiah Smith is evidently in the unenviable position of having under his care an unhealthy or, at best, a vermin-infested collection of Carnations, and under these circumstances is quite justified in using the most stringent measures to cleanse them. Red spider and thrip I imagine would be very difficult to get entirely rid of in a house of Carnations; but to apply myself to a direct answer to his question as to how I manage to keep down red spider and thrip without the use of a syringe—well, I never had either of these pests on my Carnations, so have never had to consider the question of an antidote. Preventive measures are confined to maintaining a healthy and hardy growth, brought about by having a house kept exclusively for Carnations, by never allowing a drop of water to be used beyond what is necessary for the well-being of the roots, and by an abundance of ventilation all the year round. If, after cleaning his infested plants, your correspondent had gradually brought them to a cooler condition, subsequent syringings would have been unnecessary. That condition of healthy growth in Malmaisons denoted by deep green leaves having a decided curl and a bloom resembling that on a well-finished bunch of Grapes cannot be obtained if the plants have to undergo periodical syringings of sufficient strength to destroy these pests.—THOMAS WILSON, *Glamis*.]

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

HARDY FRUIT GARDEN.

PEACHES AND NECTARINES.—The disbudding of these may be proceeded with. This must be done gradually. On the first occasion most of the growths on the under side of the wood may be removed, but always bear in mind that a growth must be left as near to the base of the bearing shoot as possible, and another at the point. As a general rule, these two growths will furnish the trees with ample fruiting wood for next season. The final disbudding of young, vigorous trees must be done later than for those in full bearing, and extra strong growths must be kept pinched to ensure an equal distribution of sap. A sharp look-out must be kept for aphis, and should this appear on the leaves, the trees must be vigorously syringed with an insecticide. It is a good practice to syringe all the trees as soon as the fruits have set. Any coverings on the trees which are likely to interfere with growth must be removed, or partly so, during mild weather.

Apricots.—If the fruits have set thickly, some of them may be removed, but it will be wise not to remove too many for a week or two, when it can better be determined which are going to swell. It will be necessary to remove some of the surplus growth; this is best done by pinching the young shoots when they are large enough. Where there is room to lay in young wood, bear in mind to leave a convenient shoot for this purpose.

Outdoor Figs.—These may be pruned now, if not already done. One of the chief causes of failure in the culture of Figs outdoors is allowing the growth to become so dense as to exclude sunlight and air. This not only prevents the fruits from ripening, but is also the cause of unripened wood. If the branches are inclined to be overcrowded, do not fear to use the knife liberally, and during the growing season pay timely attention to the pinching of the young growths. It is not safe yet to dispense entirely with the protecting materials.

INDOOR FRUITS.

Strawberries in Pots.—At this time of the year these require a good deal of attention in regard to watering and syringing. Plants growing on shelves which are fully exposed to the sun will often require water two or three times a day. The syringe must also be liberally used and the walls and paths damped frequently during fine weather. Plants which are swelling their fruits must receive plenty of stimulants till the fruits commence to colour. At this stage the atmosphere must be kept drier and cooler, or the fruits will lack flavour. Some of the latest batches of plants may be saved after they have been forced for planting outdoors at a later date. These plants will give a heavy crop of fruits the first year after planting. Young plants outdoors which are required to produce early runners for forcing must have their flower-spikes removed.

Fruit Borders Outside.—Nothing will be served by keeping mulchings of litter or leaves on outside borders at this time of the year. These are usually placed on borders for warmth, but they are often left on long after the materials have lost what little heat they had. These materials should be removed and the borders lightly forked up, so that the natural warmth of the sun and the cleansing influence of air can reach the roots.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

THE improved conditions in the weather will make the work in this department daily more pressing, but local circumstances must guide the cultivator in getting the main crops put in. No advantage is gained by performing the work early if the soil is in a wet condition. Light soils may be successfully cropped within a day or two following a heavy rain, but on heavy clay land at least a week of fine drying weather is required before it is advisable to sow seeds or to tread on the ground in any way.

Potatoes.—The principal crop of Potatoes may now be got in. Proper trenches should be taken out in preference to planting with a dibber. Large tubers may safely be cut a week or so before planting, dipping the cut parts into freshly-slaked lime. Medium-sized sets planted whole are generally found to give the best results. These, however, should be carefully selected; not by the rough-and-ready method of passing them over and through certain sized riddles. The selection should be made at the time of lifting the Potato crop, discarding all those that do not conform to a certain standard, and only retaining sets for seed from plants possessing heavy-cropping qualities and having few small tubers at their roots. The practice of sprouting Potatoes in shallow boxes has much to recommend it, and is becoming more general.

Asparagus-beds may have farmyard manure dug into the alleys between the beds, and a light dressing of common salt applied to the permanent beds. Newly-formed beds should now be planted, selecting two year old crowns for that purpose.

Peas should be sown weekly, and stakes provided as soon as they appear in the rows.

FRUIT GARDEN.

Grafting.—The grafting of old Apple and Pear trees, whether it be done for the purpose of quickly getting a large fruiting specimen of some new variety or for transforming a healthy but unfruitful sort into a fruit-bearing tree, is frequently practised in private gardens, and generally well repays the little trouble it entails. Whatever method is followed, the stocks should be examined, and as soon as it is found that the bark will part freely from the wood, grafting may be proceeded with. Cleft and crown or rind grafting are the most suitable for large trees; but when the stock and scion are about the same size, tongue grafting is the one most likely to give the best results. The scions should be clean and well-matured young shoots which have been kept dormant by being heeled in in some shady corner since the pruning season. After being securely tied in position, the air should be excluded by covering the junction with grafting-wax or with a mixture of clay and cow-manure worked into a plastic condition. The clay requires covering with moss to prevent it cracking. Last season's grafts will require attention at this time, as they are very liable to be blown out by strong winds. If good growths have been made, these will require shortening. A stake should be firmly fastened to the old branch long enough to provide a support to the graft.

Pruning Young Fruit Trees.—Trees that were planted last autumn should now be pruned, as any further delay would mean loss of energy by allowing the buds to expand. Leading shoots should be shortened to about a third of their length and immediately over a bud which points in the direction it is desired the shoot should take. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE KITCHEN GARDEN

HERBS FOR THE KITCHEN GARDEN.

IN most gardens there is a constant demand for herbs in small quantities. Sage, Thyme, Tarragon, Mint, Marjoram, Basil and Parsley may be mentioned among those most generally asked for, and all can be easily raised from slips and seed. Sage roots freely if large pieces are slipped from the old bushes and planted deeply 18 inches apart in well-prepared beds and made very firm. Thyme divided into small tufts and these firmly planted 1 foot apart soon grow into nice specimens, and in the absence of plants seed may be sown either in the open or in pans and placed in a gentle warmth, exercising reasonable care and attention in pricking the seedlings off and in due course planting them out on a snug border.

Tarragon is mostly increased by division, and the same applies to Mint. Savory may also be increased by division or seed. Sweet Basil and Sweet Marjoram I usually raise in boxes in a little heat, although the latter will grow rapidly if sown in drills in April on a sunny border.

The present time is very suitable for taking the herb crop in hand, whether the object be renovating old beds and plantations or beginning afresh. For the sake of convenience I would strongly advise keeping them together as far as it is possible to do so. In the first instance choose a suitable piece of land and have it well prepared, then mark out beds according to the quantity of each kind required to meet the demand. Here, most of the herbs are grown on a south-east border, the land being thoroughly prepared during the winter months, so that by the time it is required it has become well settled down. All the perennial varieties are kept together and the annuals by themselves. The latter are sown in rather small quantities in suitably-prepared drills, the seeds along the rows being thinly and evenly distributed and covered up very slightly with fine-sifted soil and a little wood-ashes. If the weather at the time of sowing the seed proves dry and watering is required, this is done through a rather fine rose can, and for a few days till the seedlings appear the beds are covered with mats to preserve the moisture.

Most kinds of herbs when once well established soon produce flowers and seed, which for winter use should be cut and dried before that period. Cut them when perfectly dry and allow them to remain for a few days in the sun, or they may be tied up in small bunches and hung up in a dry, airy shed. If kept perfectly dry the flavour is retained for a long time.

Wrotham Park, Barnet. H. MARKHAM.

TREES AND SHRUBS.

GALLS ON TREES AND SHRUBS.

THE study of the different kinds of galls which are found on the twigs, leaves, or roots of various plants, more particularly trees, is attended with considerable interest, and the observer finds himself provided with ample food for thought in conjecturing the whys and wherefores for each peculiarity of growth. Why one phase in the life-cycle of an insignificant insect should be passed in the tissues of a leaf or stem; why during that period it should cause the stem or leaves to develop curious, gouty-looking excrescences; or why these swellings should differ so widely in character when the insects causing them are of close relationship, are all questions of a perplexing character, and the more a person comes in contact with them, the more he wishes to find a satisfactory solution.

The number of kinds of galls to be found are legion, the Oak alone being the bearer of a very large number. Many of them are not of a serious character, and occur in small quantities on trees and other plants. These often escape notice, and it is only when an epidemic occurs and certain plants are disfigured that attention is directed to them. There are, however, other kinds of galls which seriously injure the plants on which they occur, for they cripple the branches and effectually check free growth. This is apparent in the case of trees where the leaders and main branches fall a prey.

As a rule, it is the larval or feeding stage of insect-life which is responsible for the formation of galls. Eggs are deposited in the leaf or bark by mature insects, and when the larvæ hatch and commence feeding, irritation is set up, which causes



THE OAK-GALL SPANGLE.



GALLS ON FLOWERS OF THE ASH.

the abnormal growth. In some instances the insects pupate and leave the galls after a short period; but in other instances the pupæ remain dormant throughout the winter and the mature insects emerge during spring or summer.

A great difficulty occurs in trying to cope with an epidemic of gall-producing insects, and in the case of woods it is almost an impossibility; but with ornamental trees the case is less desperate, for the expense of dealing with a few specimens cannot be considered heavy, while money is well spent if, thereby, an outbreak can be checked. The best time to attack the insects is when they are leaving the galls; consequently, notice must be taken of the time of year when this happens. Take the pine-apple gall, for instance, which is frequent on some of the Spruces, especially the common Spruce. In spring, just as the buds begin to put forth new shoots, mature chermes will be found about the branches ready to pierce the young shoots. This is the time to attack the insects, and by spraying once a week with paraffin emulsion for five or six weeks it is possible to get rid of the majority. The same thing may be said of the Holly fly, which is responsible for the ugly brown patches which frequently occur on the leaves. By spraying several times with a paraffin and soft soap wash during late spring it is possible to cleanse the trees almost in one season. Where only a few galls occur, it is possible to clear the trees by hand-picking and to destroy the galls by burning; but this is, of course, impracticable in the case of large trees.

A curious gall is sometimes noticeable on the leaves or leaf-stalks of the common Lombardy Poplar. This gall is somewhat Pear-shaped, and is caused by an insect called Pemphigus bursarius. A familiar gall is the one which appears as small oval or round, usually red, swellings on the surface of Willow leaves. This is caused by one of the saw-flies (Nematus gallicola). The Goat Willow (Salix Caprea) sometimes bears curious gouty swellings about the ends of the shoots, which are caused by the larvæ of a small insect, Cecidomyia saliciperda. A correspondent has recently sent us a specimen of this from Cheshire, but it is found in many parts of the country. A genus of insects known as Eriophyes comprises many gall-producing insects. E. tiliæ is responsible for curious, slender

conical excrescences on the surface of Lime leaves. These are familiarly known as nail galls, and are often seen on Tilia vulgaris in summer. On Beech leaves a pretty little conical gall is found also. This is caused by the larva of E. fagi. E. axillaris produces curious little swellings in the axils of Alder leaves, while E. avellana causes the buds of the Hazel to develop abnormally. The genus Phytoptus injures several trees, for the peculiarly stunted branchlets sometimes seen on the common Birch are due to irritation set up by P. rudis. P. fraxini, another species, is responsible for the inflorescences of the common Ash becoming covered with hard, warty swellings.

The familiar marble and spangle galls of the Oak are caused by the insects Cynips Kollari and Neuroterus lenticularis respectively. The latter is a very pretty gall, and occurs on the under sides of the leaves. A less familiar gall is that called the red currant gall. It is found on the male inflorescences of the Oak, in small colonies having the appearance of Red Currants. Lastly, attention may be directed to the curious mossy-looking galls found on the wild Rose called robin's pincushion galls. These are the result of irritation set up by an insect called Rhodites rosæ. This gall is of a very showy and interesting character. D.

THE FRUIT GARDEN.

FRUIT NOTES.

SOOT FOR STRAWBERRIES.—There can be no question as to the substantial value of soot for practically any crop that is grown in our gardens, and it should certainly be used in the Strawberry plantations with considerable freedom, because it is bound to do good. Provided that it is kept from the leaves, it may be used moderately fresh; but it is always preferable to have that which has been heaped for a few months. Before the application is made, the surface of the bed should be loosened with the Dutch hoe or pricked over lightly with a fork, and as this work proceeds every weed that can be seen must be destroyed. The rains will wash the valuable properties of the soot into the ground and the plants will derive benefit from them, while before that has occurred the soot will have accounted for a few slugs.

SPRING SPRAYING.—It is unfortunate, but we shall have to spray our fruit trees once or twice more. Many people think that when they have given the trees a thorough washing with a caustic solution in the winter, the necessity for further attention will be obviated; but this is not actually the case. Excellent as the winter work indisputably is, it will not kill insects that are not then present, and it is quite certain that it will not destroy all the eggs. It is to these ends that spring spraying is so extremely useful, and it is more especially directed against the grubs of the winter and Codlin moths. To be really effectual three applications are desirable, the first before the buds expand, the second when the petals have fallen, and the third before the noses of the fruits turn downwards, the latter being particularly valuable against the Codlin moth caterpillar. In all instances the spray should be through a proper instrument, and the finer the film that can be thrown, the more efficacious the application will be, because it will then adhere, whereas coarse drops will run off.

PARIS GREEN AS A SUBSTITUTE OF LEAD.—For many years Paris Green or London Purple was relied upon, but the foliage was so frequently injured that people became shy of these dangerous arsenical washes. It is readily to be understood that the young leaves are exceedingly tender, and it is by no means conducive to the finest results to have the skins browned by any application in such an early stage. When the arsenate of lead and acetate of soda wash was recommended and most thoroughly tried, it was found to be equally beneficial with the Paris Green wash, and the element of danger was not so pronounced, for it is seldom that the leaves are damaged by a correctly-prepared and properly-applied solution. The formulæ for both of these insecticides have appeared repeatedly in THE GARDEN and need not now be given; but should any reader not be able to find them, a letter to the Editor will at once bring the information.

BLISTER IN PEACH LEAVES.—There is no doubt that the presence of considerable numbers of blistered leaves on the Peaches and Nectarines militates considerably against the excellence of the crops, because the power of food assimilation is reduced. The trouble comes with the cold, cutting winds of spring, and no efforts ought to be spared to afford such protection as will reduce the seriousness of the attack. The immediate removal of badly-curled leaves is strongly recommended, but only the worst should be removed in severe cases, or it will mean partial defoliation, which is assuredly bad. The screens that are utilised for the protection of the blossoms also answer for breaking the biting winds, and therefore reduce the danger materially.

YOUNG WALL TREES.—These will demand attention at practically all seasons of the year, in order to favour proper establishment. To nail firmly to the wall immediately planting is done is an error that will certainly lead to trouble, while to neglect training in later is equally bad. Let those that have settled down be nailed in now, and exercise considerable care and judgment not to retain more growths than are required to furnish the available space. Crowded branches will never be of the slightest value, and they should now be judiciously thinned out. FRUIT-GROWER.

SILVER-LEAF DISEASE OF FRUIT TREES IN CAMBRIDGESHIRE.

DURING the past few years this deadly fungoid disease has increased to an alarming extent in the fruit plantations of Cambridgeshire. On one large fruit farm alone considerably over 100 trees have been killed by this disease during the past three years. I have further noticed it to a lesser extent on the small growers' plantations. This latter class of grower views with alarm its rapid increase, as affected trees invariably succumb just as they are beginning to prove a source of profit. In Cambridgeshire the Victoria Plum and Green Gage appear to be most susceptible to the disease. I have, however, observed it affecting other varieties of Plum, viz., Czar, Monarch, Pond's Seedling and Pershore. I have also found Apple trees, Gooseberry and Currant bushes similarly affected.

Apparently the fungus Stereum purpureum is the cause of the disease, as after the trees are quite dead the fruiting portions of this fungus burst out all over the branches. Furthermore, to my own satisfaction, I have proved that by inserting the spores of this Stereum in the branches of healthy trees the foliage within a comparatively short space of time assumes that very characteristic silvery sheen appearance by which the disease may be easily detected.

On no account should trees which have been killed by the disease be left lying about on the plantations, as it is only on such trees that the fruit bodies of Stereum purpureum develop. The spores of this fungus, if carried on to wounds of healthy trees, will germinate, and the mycelium penetrating into the woody tissues will eventually cause the death of the tree. As the fungus is undoubtedly a wound parasite, all large wounds on trees made by pruning operations or from any other cause should be protected by a coating of tar. Although the silver-leaf disease may take from two to four years to kill the tree outright, the wisest policy to pursue is to root out and burn any trees found to be affected. I have known cases where fruit-growers, thinking to prevent the



A DELIGHTFUL SAXIFRAGE (S. BURSERIANA) IN THE ROCK GARDEN AT KEW. (*See page* 167.)

disease spreading all over the trees, have cut off the affected branches; but in every case the disease has shown itself the following season, and ultimately the trees have died.

During last summer, while carrying out an inspection of a fruit plantation, I noticed that about a dozen Plum trees which had been regrafted during the earlier part of the year were badly attacked with silver-leaf disease, the side shoots from the old stock and the scions being affected. As there were no other trees affected with the disease on this particular plantation, I felt curious as to the possible source of infection; consequently, I made a careful search of the surroundings of the plantation, and found that several old posts used in fencing the premises were literally covered with the partially dried-up fruiting organs of Stereum purpureum.

F. G. T.

THE AMATEUR'S VINERY IN APRIL.

For several weeks to come we may expect sudden bursts of sunshine alternating with cloudy, overcast skies. It is a period which tries both the skill and the patience of the cultivator of Grapes. A novice would not, of course, see any danger to the Vines through neglect to open and close the ventilators many times during the day when the weather became very changeable; but the expert does, and, in order to be successful, he goes to much trouble to prevent the scalding or chilling of the foliage of the Vines. The greatest danger arises from neglect to open the top ventilators a little early in the morning when the sun shines in a clear sky. The evil effects of such neglect cannot be rectified by the admission of a great quantity of cool air all at once at a later hour of the morning. Such action would do more harm still.

Just before the sun shines on the vinery the cultivator must open the top ventilators rather less than 1 inch. The reason for doing so is as follows: If the house is quite closed and the sun shines strongly on it, the interior atmosphere quickly becomes very hot, and the night moisture on the young leaves is so much heated that the leaves are scalded, sometimes at the edges, oftener in patches, just where the moisture lodges most. By opening the top ventilator a little, in good time, the excessive moisture escapes and there is a gentle circulation of air in the structure, which is very beneficial to the Vines. As the sun gains in power as the morning passes, the ventilators should be opened a little wider still, but never to such an extent that a cold draught will blow upon the tender leaves. On a calm day about 3 inches will be quite wide enough to open the ventilators. Then there is the question of over-dryness of the atmosphere, one result of which is the breeding of red spider and thrips on the leaves. There must be a limit to the extent of the ventilation and the arid state of the atmosphere, so the judicious damping of the border, walls and path will supply the requisite amount of moisture. On some days one damping will be sufficient; on others two, and even three, may be needed. The foliage should not be syringed.

We must now consider the matter of closing the vinery. When it has once been closed it must not be opened again that day—of course, I am now referring to the hour when the ventilators are closed finally in the afternoon, and not when they are closed for short periods during the day when the weather is very unsettled—else the leaves will be chilled. If the weather is fine and bright, close the house at three o'clock early in April and at half-past three later in the month. See that the borders and paths are damped at the time of closing the lights. The temperature will rise, but if it is from sun-heat alone the Vines will benefit greatly.

On dull days no ventilation, or very little, will be required, and it will be advisable to keep the pipes warm to prevent the temperature going too low. On warm days the fires must be allowed to go low as the sun gains in power, and in the afternoon they should be stoked again, so as to increase the warmth in the pipes as the sun-heat husbanded in the house declines. I have dealt with the subject of the heat of the vinery and how to regulate it rather in detail, because it is really such a very important matter at this season, as neglect would result in the crippling of the Vines and the partial, if not entire, ruin of the crop.

Tying Down the Shoots

All young Vine shoots grow upward towards the roof glass. Until the flowering stage these shoots are exceedingly brittle, and when from 6 inches to 10 inches long or so they snap off easily if violently pressed down; but as it is necessary to keep the points from touching the glass, the shoots should be gradually brought down to the level of the wires. Pass one end of a strand of soft matting round the shoots a few inches from the end; then gently pull down the shoot a few inches only, and fasten the other end of the matting to the wire. In a week's time the shoot may be pulled down again, and so on until it is brought close to the wire.

B.



AN EFFECTIVE METHOD OF GROWING ARENARIA BALEARICA IN THE ROCK GARDEN.

FLOWER GARDEN

A PLANT FOR THE SHADY ROCK GARDEN.

(Arenaria balearica.)

AT a casual glance there is scarcely anything to suggest the affinity that exists between the Balearic Sandwort and the stately forms of Carnation that grace our gardens; nevertheless, both belong to the Natural Order Caryophylleæ. Arenaria balearica is almost microscopic in growth, so slender and frail appear the delicate emerald green shoots. It is, however, a remarkably good-tempered plant, and, given a congenial position, it increases with great rapidity, spreading out on every side and clothing everything over which it passes with a soft felt-like carpet of most pleasing green. From April to June it is covered with countless numbers of small white starry flowers that are exceedingly effective when viewed in a mass. An admirable subject for any cool, shady recess on the rock garden, the Balearic Sandwort, however, appears to singular advantage when clothing the damp face of a rock wall, and particularly so if the exposure is a north one and the plant is allowed to come about eye-level; then one is able to appreciate it in all its minute detail. On account of its free-seeding qualities one finds it frequently ramping in great luxuriance beside the rock garden path; and while this characteristic of the plant in adapting itself to varying conditions is of the greatest value, one cannot, however, perceive its great beauty when placed so far beneath the eye-level. Arenaria balearica is readily increased by division, which may be carried out practically at all seasons, but is best performed in early spring, and if the soil is kept slightly damp for a few days, the plants become established in a very short time. By its preference for a shady position it is a welcome plant for the cool side of the rock garden where only occasional rays of sunshine may reach it. If planted in a small crevice in a high position, this charming Arenaria will quickly overhang the bare face of the rockwork.

Chiddingfold. Thomas Smith.

A BEAUTIFUL ALPINE SAXIFRAGE.

(Saxifraga burseriana.)

Of the many alpine Saxifrages now in cultivation, the beautiful Saxifraga burseriana merits as much attention as any of them. It is a low-growing species, with moss-like foliage, of hardy constitution, and with good flowering propensities. Its floriferous habit is well portrayed in the illustration on page 165. It is a spring-flowering Saxifrage, and although generally seen at its best in early April, will flower any time between March and the end of May. Like some other alpine favourites, this plant seems to have leapt into public favour within the last few years; but it must not for one moment be supposed that it is a recent introduction. As a matter of fact, it was figured and described in The Garden as far back as March 10, 1877. On this occasion a small tuft in flower was shown in an engraving from a plant in Mr. Ware's collection at the Tottenham nurseries. Saxifraga burseriana spreads rapidly, forming broad patches over the earthy interstices of moist sandstone rockwork where it does not suffer from stagnant moisture.

ATTRACTIVE HARDY FOLIAGE PLANTS.

Despite the fact that flowering plants exert by far the greatest influence in garden decoration, good foliage subjects, when carefully selected and suitably placed, are not without their worth as contrasting elements, and they frequently attain to the importance commonly associated with flowers owing to the brilliant colours developed in the leaves at certain seasons. These characters are common to herbaceous plants and shrubs; in both the foliage presents infinite variety. Among plants of a herbaceous character that instinctively occur to one in this relation are the giant Gunneras, which are always used to such good purpose in waterside gardening, and, being an extreme type, never fail in contrasting admirably with other plants. Of lesser stature are Saxifragas peltata and cordifolia purpurea, Petasites giganteus, Rheums, and various species of Senecio in which the leaves are practically entire, and, being generally of a large size, they yield effective contrasts with most other leaf types, but particularly so with Iris foliage or the majority of Grasses.

Another exceedingly effective type of leaf is that represented by Ferula gigantea, Heracleums, Orecome (Selinum) Candollii, Rodgersias, Astilbes and most Spiræas; and in Cynara Scolymus, the common Globe Artichoke, we find this leaf type attain the highest degree of ornamental beauty in herbaceous plants. The same compliment fittingly applies among ligneous vegetation to the huge compound leaves of Aralia spinosa, a plant greatly appreciated in the smallest gardens, being readily restricted at the head, and a most conspicuous ornament when in leaf. Ailanthus, Rhus typhina and R. sinica all give simple pinnate leaves, and are readily restricted by pollarding to the ground each year in spring. Too much prominence can scarcely be given the Rhus family, particularly R. Osbeckii and R. typhina lacinata, as these are most brilliant-coloured subjects in autumn.

Of shrubs with entire leaves Paulownia imperialis responds to pollarding in much the same way as Ailanthus, while the entire leaves of Cercis Siliquastrum, Catalpa, Clerodendron, Abutilon, Carpinus cordata, Idesia and most Magnolias are effective in contrast against compound leaves, such as are found in Nandina domestica, Pterocarya, Gymnocladus, Gleditschia, Cæsalpinia and Æsculus (Pavia) parviflora, while each and all are singularly effective as single specimens among the ordinary shrubs or interpolated in composite planting with ordinary herbaceous plants.

This principle applied to the arrangement of rock plants also increases their effect as a thing apart from the colour value of the flowers, while it lends additional interest to the garden at a season when flowers in general are very limited in number. Even with bulbous subjects—so frequently deciduous when most other plants are in full activity—the addition of a suitable evergreen plant to carpet the ground not only introduces this contrasting element in the most practical manner, but renders the flowers much more effective in their season and frequently secures a dual display. Thomas Smith.

THE FASCINATION OF THE ANEMONE.

(*Continued from page* 152.)

Anemone apennina ranges from Italy to Turkey, and must be too well known to readers of The Garden to need description. It varies considerably, but does not ever reach such deep colours as blanda achieves. It flowers later, too, coming when its more Eastern representative is waning. Its large starry blue flowers stand up on longer stems than those of the earlier species. Its white form generally shows a tinge of blue of rather a greenish shade on its outer side. Just a light wash of Prussian blue would be the paint to use for it. But I have a form, one of Dr. Lowe's many gifts, that is pure white on both surfaces and has lighter green leaves than the others, a real albino form, in fact, and having no red coloration on the leaf-stalks and flower-stems.

Then there is a light purple form that originated in Messrs. Van Tubergen's richly-stored garden at Haarlem. It is more starry in shape than the typical form, but is well worth growing. It is known as var. purpurea. Rose-coloured forms I have heard of, but have not seen, those bought under the optimistic sounding title of var. rosea having been white with the usual turquoise blue back. There is a double-flowered form, but it is disappointing in comparison with blanda's achievement in the doubling line, being pale and washy in colour and not very full. A. apennina has been naturalised in many places with such success that it has gained a place in most of our British Floras; but it is certainly not a native plant, though eminently suitable for planting in woodland. The most glorious colonies of it that I have ever seen are those at Hamwood in Ireland, where it grows with great luxuriance. I remember noticing that some of the tallest blossoms reached almost up to my knee.

A great favourite of mine, but not often seen in gardens, is A. trifolia, a species widely spread in mountain woods of Europe, and also of North America. Its ample leaves are of a very deep green, and of a hard texture that gives them an appearance of being evergreen like certain Epimediums, but they perish each autumn. The flowers are rather small compared with the important-looking leaves, and of a very pure cold white. I have been told of blue forms occurring in Italian woods, but that they have in changing their sky also changed their colour of the sky and proved indistinguishable from the ordinary form.



A CHARMING GARDEN SCENE OBTAINED BY USING FOLIAGE PLANTS.

A. flaccida from China and Japan is an interesting species for a moist, shady position. It pushes up its leaves early in the year, and they are very attractive, as upon their first appearance they are of a peculiar raw sienna tone of green; in middle age they become light green, marbled with brownish yellow; and, finally, dark green, marbled with grey. They suggest the foliage of a Buttercup somewhat, but are smooth and rather glossy. The variety of shades of green on a clump in spring makes this species well worth growing. The creamy white flowers are freely produced, about the size and shape of our Wood Anemone, and I think each scape produces two blossoms.

I have now nearly exhausted the Anemones of my second division, those that grow well here, and as all those I have so far described need similar treatment, I will break off with the list

here and prattle a little of that treatment. It will be noted that all are naturally woodland plants, except blanda, which I imagine to be more of an inhabitant of bare mountain slopes, and it sometimes surprises me that plants of the woods, for which one instinctively feels cool, rich leaf-mould is the needful soil and shady glades the natural home, should consent to exist in so parched and dry a garden as this, whose subsoil of coarse gravel seems to suck up all water and manure, and for aught I see of result on this side allows them to percolate through to the Antipodes. One would naturally expect the sun-loving species of coronaria and hortensis types to be most at home; but, as I have said already, they depart, and the woodland forms settle down comfortably. Of course, I choose rather cool conditions for them—north-western slopes of the rock garden, borders shaded from the south by tall trees and those sunk a little below the surrounding turf — but even in ordinary borders in full sun many of the nemorosas are not only "comferable," but have exceeded Mrs. Green's highest ambition and are actually "'appy."

I believe the more leaf-mould I can spare for a covering each time their network of brown rhizomes appears above ground, the better they like life, and just that little attention and then to leave them alone is, I think, the best rule for their successful cultivation. If they *must* be removed to form new clumps or to induce an admiring visitor to move on a little further, the best time to do it, both for plant and visitor, is when they are in full growth, or even flower. Thus the visitor is sure he gets the exact variety he longs for, and the plant forms and ripens its new rhizome in fresh soil and gets anchored before winter.

The rhizomes of nemorosa forms or tubers of apennina and blanda suffer greatly from being dried, and so the shorter period both are out of the ground during upheavals and journeyings, the better they will thrive in a new home. When ripe, seeds should be sown "at once or sooner if possible," as an Irishman is reported to have said. They fall off early, especially those of blanda, when still quite green, but need no further ripening, only desiring to be placed in the soil and left there to germinate next spring. In purchasing these woodland forms, the great thing to aim at is procuring them as early as possible in late summer or early autumn if they are lifted from the ground; but, of course, pot plants, when procurable, can be planted out at any time.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

(To be continued.)

ROSE FRAU PETER LAMBERT.

WHEN sent out some eight or nine years ago this Rose was looked upon as being a very fine novelty; but the tremendous influx of other novelties has somehow crowded out this really good Rose, and it is not the only one that has been thus treated. One great fault of Frau Peter Lambert was that it could not stand wet, and in our variable climate such Roses sooner or later have to go. I believe it originated from Kaiserin Augusta Victoria crossed with Mme. Caroline Testout, but not until the result of this cross was again crossed with Mme. Abel Chatenay, so that we have the blood of three excellent Roses in Frau Peter Lambert. The colour is deep salmon pink, the flowers being of good size, double and well formed. P.

THE TOWN GARDEN.

AMONG THE BORDER FLOWERS.—Now that we are well into the month of April, serious thought should be given to making selections of plants and completing the work of planting. "Procrastination is the thief of time," we are told, and in no walk of life probably is it a greater robber of the best that might be than in the affairs of the garden. To put off ordering plants from day to day, to defer the planting of new-comers when they arrive, is but to rob the garden of some of its pleasure-giving effects at a later date, and, probably, to think or speak unkindly of those from whom the plants were ordered. On the principle that "delays are dangerous" it would be well to act at once.



ROSE FRAU PETER LAMBERT.

LARKSPURS.—These are just now up and doing, and their renewed activity of growth is a hint that any additions to this fine group should be made at once. I prefer to plant these things in the early springtime, because contemporaneously with the new shoots above ground comes a fresh issue of root-fibres; hence the newly-planted subject takes to its fresh quarters with a minimum of loss and suffering. It is not so if the plant is first allowed to make 1 foot or more of top growth, for this in all probability would rob it of its chances of flowering in the season of planting. To plant in season and in reason is therefore best calculated to avoid disappointment and to secure a moderately good flowering in the first year. At this time I much prefer plants of a youthful character from the open ground as opposed to the starvelings in pots usually reserved for late-comers. Those who saw Mr. Amos Perry's "blue tent" at Holland Park last year will not need to be reminded of the great beauty of these Larkspurs, as the Delphiniums are popularly known. Their towering spikes of blue, violet and purple of almost every conceivable shade render them unique in their day, causing them to figure prominently among the indispensables of the garden. All they ask for is a soil of generous tilth, that is of good depth and moderate richness. Plant them so that the new shoots are buried 2 inches deeper than before, and all will be well.

HERBACEOUS PHLOXES.—These, like the Larkspurs, are indispensable in border gardening, and should be planted without delay. The Phloxes differ from the other group named because of a tendency to surface-rooting and also because of their moisture-loving requirements; hence they should never be planted near to trees or grass-rooting shrubs like Laurels or Privet, which, while filching the soil of its nourishing and sustaining power, also rob it of its moisture. The soil cannot well be too deep or too rich for Phloxes, and in summer-time liquid manure and water may be given with a free hand.

PHLOXES FROM CUTTINGS.—Those who are interested in the best border plants should make a point of raising a few of the above from cuttings each year. The system has a two-fold merit, viz., perpetuating youthfulness and vigour and extending the season of flowering, the cutting-raised plants succeeding the older plants in their flowering. The fresh and young shoots of 4 inches in length make excellent cuttings and form roots in about a month when inserted in sandy soil in a frame. When well rooted, transfer them to the open ground and supply copiously with water for a time. To think of potting the young plants is a sheer waste of time, that is, from the gardener's point of view.

PLANTING HINTS IN BRIEF.—Because Phloxes and not a few other perennial herbaceous plants make big stools, they are frequently spade-divided when replanting is necessary, and huge clumps employed. This is a mistake, and a far better flowering results from utilising the fresh young bits at the outside of the clump. Arrange six or a dozen such bits 18 inches apart to form a group and await the result. S. N. N.

GARDENING FOR BEGINNERS.

HOW TO REPOT PALMS.

THE repotting of Palms is usually done in March and April, and even later, quite successfully. The period has, therefore, arrived when no time should be lost in dealing with all Palms that will benefit from a shift into pots of larger size. The earlier the potting is done the better, as this enables the plants to obtain the advantage of the warmer part of the year during which to make their growth. It should always be borne in mind that Palms require just sufficient root-room and no more; really they are sometimes maintained in good health in such conditions by being fed with artificial manure, and this is to be preferred to placing them in a pot that is too large. There is one advantage in having plants in small pots or those of moderate size, and that is, they can be accommodated in so many more receptacles when they are so retained. In Fig. 1 two small plants which have been growing in 3-inch pots for a considerable time are shown, and the result from this limited amount of pot-room is really remarkable, as the two specimens clearly indicate. On the left of the picture is shown the ball of soil and roots intact, just as it was when the plant was shaken out of its pot. Note the numerous roots and their vigorous character. The small plant on the right has also been shaken out of its pot, the sour surface soil removed, the crocks have been taken from the base and the roots very slightly disengaged. This is now ready to be repotted.

Opinions differ as to what soil should compose the compost for repotting Palms. For general purposes the compost should consist of two parts light, rich, turfy loam, one part good leaf-mould, with the free admixture of coarse silver sand sufficient in quantity to keep the compost porous. Mix well before using. Pots and crocks should first be soaked, and then washed clean. Crock with care, and cover the crocks with some of the rougher portions of the soil or with moss to prevent the smaller particles of soil working down into the drainage and clogging it. After removing the crocks from the base of the plant to be repotted, and also preparing it as shown in Fig. 1, place the plant in position in its new pot. Adjust the ball of soil and roots in such a position that the surface roots are just covered with soil. There is a danger when a plant is potted too deeply that it may fail and decay at the junction of the roots with the plant. On the other hand, when not planted, or, rather, potted, deep enough, the plant may not be able to support itself, and will lean on one side in consequence. Pot firmly in all cases, working the compost well down between the side of the pot and the ball of soil and roots. In Fig. 2 the same plants as represented in Fig. 1 are shown. In this case one is repotted, and the other shows the position of the ball of soil of the plant that is being repotted. This should serve to make clear to the beginner the process of repotting.



1.—READY FOR REPOTTING.

After repotting, it is better to place the plants in a shady, warm corner of the greenhouse for a time to become established, after which they may be stood in rooms again as required. Two months in the greenhouse would not be overlong for the period during which they should be retained in the glass structure. D. B. Crane.



2.—SAME PLANTS ADJUSTED IN LARGER POTS.

NOTES ON VARIEGATED PLANTS.

As a general rule, variegated plants are less robust than the green-leaved ones. We have only to examine the Hollies, some of our stove and greenhouse plants and, perhaps more particularly, our summer bedding-out plants, to see and fully realise the fact that the silver and the gold leaved specimens are less robust than those that are quite green. There is scarcely any chlorophyl in the variegated or lighter portion of the leaf, and if the whole plant became by some means quite white it would soon die. The white or the golden edges of leaves are maintained in good health simply because of the chlorophyl contained in the green portion of each leaf; but all such leaves are rarely as large and robust as the green ones of the same kind of plant. Chlorophyl is the green colouring matter formed by very small grains lying loosely in the cells of the tissue of the leaf and stems of the plants. When we see sickly-looking plants the leaves of which should, in a normal condition, be of a dense green, we should at once know that the plant is unhealthy and lacks chlorophyl. Nitrate of soda and iron, given in judicious quantities, will, if a plant is fairly well rooted, improve the colour of its leaves. Bedding-out plants, such as the variegated Zonal Pelargoniums, must not be over-potted; a somewhat finer compost should be used for the propagation of the cuttings and the subsequent repottings. Less water is required in their case, too, than for the quite green-leaved Zonal Pelargoniums. Shamrock.

RUNNER BEANS IN SMALL GARDENS.

Enthusiastic amateurs dwelling in towns with only the smallest of gardens often grow a few Runner Beans either trained on a fence or wall, or by keeping the plants low by tipping. Where the latter method is adopted, they should, in the height of the season, be stopped weekly, so as to keep them in bounds. This Bean delights in a deep, cool-rooting medium. It is a good plan to prepare the ground as follows: Dig out trenches 2 feet 6 inches deep and 15 inches wide. Turn up the bottom of the trench with a fork or mattock and place 6 inches of the best manure obtainable on this broken-up surface. Tread down the manure and fill in the soil to within 6 inches of the top. The surface being made quite level and moderately firm, the seeds should be placed thus * * * * * * * at distances of 1 foot apart. Cover the seed with 3 inches of finely-broken soil, making the surface smooth and even. Sow a few seeds either in a box or on a spare piece of ground; these will supply plants to fill up any gaps which may occur in the rows. Slugs are great enemies to the tender seedlings. Constant dustings of soot or soot and lime will be required to keep these pests at bay. A little soil may be drawn up around the plants as they grow. Supports, where used, should be placed in position early, so that each plant may grow to the position desired, and not become entangled with its neighbours. On light, dry soils a mulching of manure will prove of much value. Colin Rose.

THE ROSE GARDEN.

PARENTAGE OF SOME LEADING ROSES.

SOME time ago a correspondent asked for information about the parentage of some of our leading Roses. Unfortunately, the origin of many of the older Roses is wrapped in obscurity, as raisers took no trouble to keep a record, and it is assumed very little artificial hybridisation was carried out. And yet what wondrous Tea Roses and Hybrid Perpetuals were produced, apparently from promiscuous seed-saving! I believe I am correct in saying that the raiser of La France was entirely ignorant of its origin. How Maréchal Niel came is a mystery, although some profess to know. What the parentage was of that superb Rose Niphetos, of Devoniensis, of Souvenir d'un Ami, or of Souvenir d'Elise Vardon, it is quite certain we shall never know. Now to-day many of our leading hybridists are less communicative as to the origin of their seedlings than that prince of raisers, M. Pernet-Ducher, for he is justly proud of his achievements and in having given to the world the first variety of what cannot fail to become a most important group—the Pernetianas. The first Rose of this group was Soleil d'Or (Persian Yellow × H.P. Antoine Ducher). Lyon Rose, another variety, was raised from Melanie Soupert × Soleil d'Or, and now we have the wonderful new-comer, Rayon d'Or, from the same cross, but at (presumably) different periods.

Modern hybridisers are very anxious to obtain good crimson and scarlet Hybrid Teas, and to this end are working upon Etoile de France, an excellent parent in many points. This Rose was the result of a cross between Mme. Abel Chatenay and Fisher Holmes. From this beautiful Rose we have Eugène Boullet (Etoile de France × Laurent Carle), Lieutenant Chaure (Liberty × Etoile de France) and Star of Queensland (Etoile de France × Earl of Dufferin).

Frau Karl Druschki bids fair to create another distinct family group. It was raised from Merveille de Lyon × Caroline Testout, and now raisers are evolving some fine things from it, one notable variety being Commander Jules Gravereaux (Frau Karl Druschki × Liberty).

The Caroline Testout race will soon become a large one. This fine Rose was raised from Mme. de Tartas crossed with Lady Mary Fitzwilliam. It has given us Mme. Leon Pain (Caroline Testout × Souvenir de C. Guillot), Mrs. E. G. Hill (Caroline Testout × Liberty) and Königin Carola (Caroline Testout × Viscountess Folkestone), besides others, and also some distinct sports.

Mme. Abel Chatenay was raised from Dr. Grill crossed with Victor Verdier, and from this grand Rose we are, without doubt, receiving many of our present-day novelties, which, if they are only equal to the parent variety, will be great Roses.

Antoine Rivoire (Dr. Grill × Victor Verdier) is such a splendid Rose itself that we must always look with favour upon any variety springing from it. One of its offspring is Mme. Segond Weber (Antoine Rivoire × Souvenir de Victor Hugo, Tea), and this variety is already held in high esteem by our Rose specialists.

Mrs. W. J. Grant was raised, I believe, from La France crossed with Marie Finger. It has, no doubt, been the parent of several modern Roses, and beautiful though it be, it is not an ideal parent because of its weak growth. Although a very strong grower, Earl of Warwick (Mrs. W. J. Grant × Souvenir de S. A. Prince) was raised from it.

In addition to the varieties named we have the parentage given of the following well-known sorts: Her Majesty (Mabel Morison × Canari), Margaret Dickson (Merveille de Lyon × Lady M. Fitzwilliam), Edu Meyer (Rose d'Evian × Goldquelle), Gustav Grunerwald (Grossherzogin Victoria Melita × Austrian Copper), Marquise Litta (Lady Mary Fitzwilliam × Eugene Fürst), Richmond (Liberty × Lady Battersea), Lady Mary Fitzwilliam (Devoniensis × Victor Verdier), Lady Hillingdon (Mme. Hoste × Papa Gontier), Mme. Constant Soupert (Souvenir de Pierre Notting × Duchesse M. Salviatis) and Mme. Jules Gravereaux (Rêve d'Or × Viscountess Folkestone.) Although these few represent but a small proportion of the huge variety of our present-day collection, it will serve to show our correspondent and other hybridisers what may be gained by this fascinating art, and I really believe, great though our collection is now, we have merely touched the fringe of the wonderful possibilities of our research into Nature's secrets. That a perpetual-flowering race of climbers will soon be evolved seems to me quite certain, and there will be other great breaks arise from calling to our aid some of the most distinct and valuable species hitherto neglected.

The marvellous development of the wichuraiana group is well known, that splendid variety Alberic Barbier being raised from R. wichuraiana × Shirley Hibberd (Tea), Réné André (R. wichuraiana × L'Ideal), Dorothy Perkins (R. wichuraiana × Mme. G. Luizet) and the more recent Shower of Gold (Jersey Beauty × Instituteur Sirdey). With this tribe we may expect still more marvellous surprises, especially if perpetual-flowering Roses are employed as the pollen parent upon the large-flowered singles, such as Jersey Beauty.

The China or Monthly Roses are very good subjects for hybridising. That grand and brilliant-coloured sort, Charlotte Klemm, was produced by crossing Cramoisie Supérieure with the large-flowered Alfred Colomb, which has bestowed upon the offspring much of its own characteristics and also its delightful fragrance. P.

DAFFODIL NOTES.

DAFFODILS AT VINCENT SQUARE, MARCH 28.

EVERYONE knows the value of a first impression, and therefore, in the name of all those who call the Daffodil their flower, I congratulate Messrs. Barr and Sons on the very striking display of King Alfred which graced the extreme right of their stand on the above date. The uncrowded arrangement of the blooms, the little pots of graceful Ferns between the vases, and the just right tint of the green background set off its handsome self to perfection. There, right in front of you as you entered the hall, was this magnificent display. My friend, who has never given beyond 2d. or 3d. for a bulb, went up to it and at once said, "I must have one," and he was still of the same mind when I told him that they were about 4s. 6d. each. This little group of rich yellow, I hope, caused some whose natural preference is for other flowers to look more closely at the Daffodils that were to be found in well-staged groups here and there in the long alleys of the show. At any rate, my friend, some time before we had reached the last of them, suddenly turned to me and said, "I think the Daffodils beat everything."

As I have mentioned Messrs. Barr and Sons' group, I will deal with that first. I thought it would have got a silver-gilt Banksian medal, and was disappointed to find that only a silver Flora medal had been awarded. It had many things of interest. Sparkler, Colossus and Firelight were three distinct types of early decorative incomparabilis, the first of the large red cups and the last of the smaller red cups, while the other represented the all-yellows. I cannot make up my mind about this new class of earlies and their suitability for border plants. In a dry, cold, bleak spring like the present they appear half starved and out of place. Sparkler is a large flower; its deep yellow perianth measured 4 inches across, and the bright orange red cup had a diameter of 1¼ inches at the brim and was three-quarters of an inch deep. Colossus, a seedling from Firebrand crossed with M. J. Berkeley, was a larger flower and all yellow. Its cup had the appearance of a small, well-shaped trumpet, and was of a rich orange yellow. There were several vases of Sunrise. It is a very taking variety, and its large, symmetrical and overlapping perianth of ivory white, with a yellow flush on each segment, harmonises well with the wide orange red cup. Vulcano, which in my book on Daffodils I described as the reddest double, was a novelty to be noted, but it was not quite up to form. It is a compact flower 3¾ inches in width, its deep primrose petals being filled in with little bits of orange red at their base. Beside it was the symmetrical double sulphur yellow Plenipo, a variety that I can strongly recommend either for showing, for pots, or for the open border where its extra strong stem enables it to holds it own in anything under a hurricane. Mermaid, a giant Leedsii with a nice smooth perianth (3¾ inches), and Seraphine, an immense pale bicolor Magni with a 4½-inch perianth and a massive trumpet 2 inches long, were among the more prominent of the good things in this collection.

Robert Sydenham, Limited, had a fresh-looking group, which contained such well-tried varieties as Firebrand, Golden Bell, Bullfinch, White Lady, Una, Lady Margaret Boscawen and others. I would like to call attention to the value of this firm's Persian Orange for glass culture. It has a little of the look of Southern Star. Its perianth is white and starry, 3¼ inches in diameter. Its cup is three-quarters of an inch to seven-eighths of an inch wide and of a deep rich orange.

As usual, Messrs. Cartwright and Goodwin had a smart, well-set-up group. Fine new Magnis were its distinguishing feature. Master of Balliol, an intense rich yellow with a 4-inch perianth and a massive trumpet 2 inches wide and 1¾ inches long; Rising Sun, the early improved Tenby; Gold Sand (King Alfred × Glory of Noordwijk), a star-shaped deep yellow self with a 4½-inch perianth and a trumpet 2 inches long and 2½ inches wide; and Pomp, a huge bicolor of the same parentage and of almost the same dimensions; with the excellent Fairy and the dainty-looking soft yellow Cornelia, were some of the more noteworthy. Two other flowers must not be passed over—(1) White Nectarine, raised by Mr. W. F. M. Copeland, a very refined and flat Leedsii, almost a giant (in measurement it is one—perianth, 4 inches; cup, three-quarters of an inch long, 1 inch wide), but it does not look so big. It is like a vastly-improved Duchess of Westminster, but the cup is of a more citrony shade. (2) Rudyard Kipling, a grand Poet which seems to blend in itself the looks of both Almira and recurvus. It has a 2⅝-inch perianth, with good broad segments and an eye five-eighths of an inch across of a pale greeny yellow, with a distinct ribbon edge of deep red. I believe it is a good strong grower, vigorous and free.

Mr. A. M. Wilson, whom everyone was glad to see looking like his old self again, had a group entirely composed of new varieties. Alas! for the writer of these notes, and for their readers too, nearly all of them were under numbers only, and all I can usefully say about them is that there were

some fine big pale yellow incomparabilis—one, 19 N., had a 4½-inch perianth; a tip-top red-eyed Poetaz with a 3-inch perianth; and many other grand flowers. Luckily, the most beautiful of all was named Beryl. This is an incomparabilis with a Bernardi cup. The perianth slightly reflexes, and is 3 inches in diameter, of smooth, waxy-looking pale yellow—what I call a Poeticus substance or like that of the wonderful new Himalayan Primrose (Primula Winteri). It has a green-tipped pistil, which is as long as the cup and serves to give character to the flower. Another named variety was Waxwing, a very well-formed bicolor Magni, a show flower all over; in fact, if one wanted a florist's trumpet, I do not know where one could find a better one. Its measurements are: Diameter of perianth, 3¾ inches; length of trumpet, 1½ inches; width, 1¼ inches. With the bare mention of two giant Leedsiis, The Fawn and Peregrine, I must bring this Part I. of my notes to a close with the promise that they will be continued next week. Joseph Jacob.

NEW PLANTS.

Odontioda Vuylstekeæ Lady Colman.—The parentage of this excellent Odontioda is not recorded. The individual flowers are rather small, but leave nothing to be desired in form, colour, or texture. The flowers, which are freely borne, are of a brilliant orange crimson of a rich dazzling beauty. Shown by Sir Jeremiah Coleman, Bart., Gatton Park, Reigate. First-class certificate.

Each of the following received an award of merit:

Odontioda Ignea.—A charming and free-flowering Odontioda. Parentage: Cochlioda noetzliana × Odontoglossum Lindenii. The flowers are rather small, deep crimson scarlet, and gracefully borne on a long raceme. Shown by M. H. Graire, St. Fuscien, Amiens.

Odontoglossum facetum Swieteni-color.—Parentage: O. wilckeanum × O. Vuylstekeæ. This is a magnificent hybrid with good-sized and handsome flowers. The flowers are almost entirely deep chocolate, the pale yellow ground showing only at the edges of the segments. Shown by Sir Trevor Lawrence, Bart., K.C.V.O., Burford, Dorking.

Carnation Empire Day.—The colour is deep salmon pink uniform almost to the tips of the petals. A flower of good size and distinction, but, so far as we could discern, lacking fragrance. From Mr. W. Smith, Enfield.

Hydrangea Mme. Moullière.—This is one, apparently, of a series of varieties with fringed petals, of Continental origin. The corymbs of flowers are of creamy hue, with just a suspicion of palest pink, and being large and freely produced, should render the variety valuable for both market work and in decoration generally. From Messrs. Stuart Low and Co., Enfield.

Rhododendron Mrs. Kingsmill.—This is a white, early-flowering hybrid raised by the late Mr. Mangles, a well-known raiser of Rhododendrons. Parentage: R. Aucklandii × R. campylocarpum. The flower-trusses, which are large, resemble the latter parent in form. Shown by Miss Mangles, Seale, Surrey.

The above plants were shown before the Royal Horticultural Society on March 28, when the awards were made.

THE EDITOR'S TABLE.

Primula obconica from Melksham.

Mr. R. H. Legg, The Gardens, Melksham House, Melksham, sends us flowers of the gigantea form of Primula obconica, and we have seldom seen better examples. The flowers are large, of rich rose colour, and many have a very beautiful zone to the eye similar to that found in the well-known Duchess Primula of the sinensis section. In addition, the large trusses are borne on long, stout stems, and speak well for the cultural methods adopted by Mr. Legg.

Pelargoniums from Shaftesbury.

Mr. T. Johnson, Motcombe Gardens, Shaftesbury, sends some very handsome flowering trusses of the new Motcombe Pelargonium. The flowers, which are double, are of a lovely soft shade of pink. The colour harmonises with the flower-stems, which, instead of being green, are of pure ivory white. For conservatory decoration from February onwards this variety should prove a valuable acquisition, particularly as the lasting qualities of the flowers are quite remarkable.

Veronica hulkeana from Enfield.

Mr. J. Rawlings, The Gardens, Ridgemount, Enfield, sends some very beautiful sprays of this Veronica with the following note: "This half-hardy evergreen Veronica, with its beautiful lavender-coloured flowers, is a most desirable and easily-grown plant for a cold or cool greenhouse. Cuttings made from the side growths root readily during March and April in a mixture of loam, leaf-soil and sand in a box covered with a sheet of glass inside a warm greenhouse. If four cuttings are rooted in a small pot and potted on intact into a 5-inch pot, they will make good bushy plants about 18 inches or 2 feet high the first year. During summer the plants should be stood outside in the full sun, and if syringed in the evenings of hot days are seldom attacked by insect pests. The plants are not injured by several degrees of frost, and can be kept in a cold frame or stood in a sheltered corner till January. If brought into a temperature of 40° to 45° early in January, the plants will flower in March, or in a cold greenhouse in April. The chief point in getting them to flower well is to give the plants a thorough rest after growth is finished, and to start them growing again very slowly. If brought at once into strong heat they grow away without flowering."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* Publisher.

FLOWER GARDEN.

Iris stylosa (*C. H. J.*).—Some such shelter as that you propose would doubtless be of assistance during the winter season, and may, to some extent, promote an earlier flowering. It would not do, however, to make it of too permanent a nature, since the plants delight in plenty of moisture during their season of growth, and if deprived of this they would undoubtedly suffer. The best thing would be to arrange a skeleton framework with grooves at top and bottom to receive the glass, or narrow lights, say of 2 feet in length, could be affixed by hinges to a back wall-plate to admit of their being raised or lowered at will. The sides being open, the plants may be kept back in times of frost. For pot cultivation the plants should be potted in March, plunged to the rim in a warm and sunny spot, and attended to in the matter of watering during the warm period of the year, and at other times as required. Such plants when well grown and established may be brought into the cool greenhouse in October, a temperature of 40° or 45° being ample. The plant is virtually an evergreen perennial, and "drying off," as usually understood, is not desirable. An important cultural item, whether in the ground or in pots, is that of keeping the rhizomes quite near the surface. Excess of growth is opposed to the free flowering of the plant, while poor soil and firm potting promote it.

Blue Marguerite (*S. P. Wills*).—The plant about which you enquire, judging from the description you now send, is the South African Dimorphotheca Ecklonis, which in this country has proved not generally amenable to cultivation. The plant is of a sub-shrubby nature and of perennial duration, to preserve which, however, greenhouse treatment would be essential in winter-time. Doubtless some of the leading seedsmen could supply you with seeds, which should be sown at once.

TREES AND SHRUBS.

Evergreen Heaths (*Hedgerley*).—It is not possible to cut Heaths hard back into old wood with the idea of them forming young shoots from the bases of the stems, for they rarely break away well after being so treated. They ought not to be cut below two year old wood, unless a few long shoots are drawn out here and there. You would do well to destroy the old plants and commence again with young stock. Young plants may, as a rule, be obtained at a cheap rate from nurserymen who make a speciality of peat-loving shrubs.

Blue Gum (*C. L.*).—It is not uncommon for the Blue Gum (Eucalyptus globulus) to produce flowers in the Southern Counties, and we have seen it flowering and fruiting in the Isle of Wight, Devonshire, Dorsetshire, Cornwall and other places. It is probable that your tree will mature its fruits; but whether the seeds will be good or not depends to a great extent on the climatic conditions both at present and during the next few months.

Treatment for Azalea (*S. A. L.*).—If your Azalea is not showing flowers or flower-buds now, it is unlikely that it will blossom before next spring, for the flower-buds are formed in the summer and autumn before the flowers open. Your best plan is to keep it growing on and give it weak manure-water about once a fortnight; then early in June plunge it out of doors in full sun. That will probably assist it in the formation of flower-buds by thoroughly ripening the wood.

Soils for various trees (*N. N.*).—Abies albertiana, correctly Tsuga mertensiana, and the various Cedars will thrive in almost any position in the glen you mention. Providing the soil is not sour and water-logged, they are not very particular regarding the kind, for they thrive in that of a peaty character as well as in light and heavy loam. Araucaria imbricata may be given a position about the lower parts of the glen. It likes a cool rooting medium where the soil is moist but well drained. Loamy soil suits it, and the best specimens are often noticed where the atmosphere is charged with moisture. The Judas-Tree may be planted in loamy soil with a west, east, or south exposure at any elevation in your glen.

FRUIT GARDEN.

Nut tree culture (*C. S. McA.*).—The most important item of work in relation to the successful culture of Nut trees is the intelligent and timely pruning of the tree. It is for this reason chiefly that the Kent growers of Nut trees are so far-famed, hard and seasonable pruning of the trees being the rule in Kent. The principle of Nut tree pruning consists of shortening the leading shoots of the previous year's growth at the end of the main branches by one-third their length. All the young shoots of last year's growth which grow out of the

side of the main branches should be cut back to within three buds of their base of the cut shoots, from which in due time fruit will be forthcoming. The cut shoots will be found useful as flower-stakes and for other purposes. It must be borne in mind not to destroy or injure the male blossoms until the fruit-buds have flowered and set their fruit, as good fruit is dependent on the pollen of the male flower coming in contact with the stigma of the female bloom. It will help fertilisation to take place better if the trees are gently shaken on a dry, warm day, in order to liberate and distribute the pollen more effectively. The same treatment applies to the Cobnut and the Filbert.

Pruning an espalier tree (*E. P.*).—You should cut the top of the centre stem low enough to bring it to the same height above the top side branches as is the second tier of side branches above the lower ones. This will probably be about 9 inches. You should be careful to cut the shoot to a bud, and also make sure that there are other two buds immediately below the top one (one on either side of the branch). The shoot which will in due time grow from the top bud must be encouraged to grow in a vertical direction in order to form the top centre stem again. The shoots from the lower buds must be trained in a horizontal direction, one on either side, in the same way as the lower branches have been previously trained. Any other buds there may be left on the centre stem below the three top ones mentioned should be rubbed off and not allowed to grow.

American blight on Apple trees (*E. H.*).—Your trees must be in a sorry state. The distorted and warty growth you speak of is due to injury by American blight, a hateful thing most difficult to get rid of. We advise you to thin out the worst and most distorted of the branches, not shortening them by cutting back to a bud in the usual way of pruning. Lime and salt washes (sulphur is also included in some cases where mildew is present) have come into favour lately in many districts, but we do not happen to know the nature of the wash used round Swanley. The following we consider one of the best winter washes. It is called the Woburn Winter Wash. It is more or less of a burning nature, and must not be applied after growth has started, and the hands and clothes of the man applying it must be protected. Apply by spraying on a calm day. Iron sulphate, ½lb.; lime, ½lb.; caustic soda, 2lb.; paraffin, 4lb.; water, 10 gallons. Dissolve the iron sulphate in 9 gallons of water, slake the lime in a little water, add more so as to make it into milk of lime, run the milk of lime into the dissolved iron sulphate through a fine sieve to strain off all grit, churn the paraffin into the iron sulphate and lime, and finally add the caustic soda.

ROSE GARDEN.

Edging for Rose-beds (*H. M.*).—Nothing could be more appropriate than the lovely little Polyantha or Fairy Roses. There is now a wide range of colour among them. If cut down to the ground each year, they would keep quite dwarf. The following are the dwarfest kinds: Eugenie Lamesch, Anna de Montravel, Mignonette, Perle d'Or, Gloire des Polyantha, Petite Constante, Schneewitchen, Aschenbrödel, Jessie, Kleiner Alfred, Georges Pernet, Maman Levavasseur and Frau C. Walter. Should you desire other subjects, the Nasturtium Tom Thumb strain are very good; so also are Nemesias, the dwarf Antirrhinums and Verbenas. Carnations are too tall-growing, and Pansies do not continue to flower long enough. Some of the dwarf Begonias are very nice.

Stimulant for Roses (*A. H. F.*).—The recipe you have had given you is that known as Tonk's Manure, and is an excellent preparation. It should be applied in February or early March at the rate of a quarter of a pound to a square yard of surface. It is well to hoe the land before applying, and then go over again and hoe the manure into the soil. There is no reason why this preparation should not be suitable as a general garden fertiliser; but in the case of vegetables we should supplement it by adding farmyard manure to the ground as opportunity offers, preferably in late autumn or very early in the year, digging it into the soil at the time of applying. If you intend to grow Roses for exhibition, you must supplement the Tonk's Manure by giving the plant some good liquid manure during May and June, that made from cow-manure and soot being very good.

Marechal Niel not flowering well (*A Young Reader*).—If you prune the plant hard now, you will repeat the experience of the last few seasons, for you will cut away the bloom by so doing. Spread out all the young growth available, merely removing the extreme tips, and bend any old shoots that can be bent almost horizontally, for this will encourage them to send out young growths, which would bloom well another year. Encourage the tree to make all the growth possible by forking up the border and giving at once a good dressing of bone-meal, which should be forked into the soil. Copious applications of liquid manure should be applied about once a week throughout May and June, and if we have a very dry time in May it would be well to give waterings, alternately of liquid manure and plain water, twice a week. After flowering, one or two of the oldest growths may be cut clean out in order to promote new shoots.

Black spot on Roses (*J. W. M.*).—If you commence to spray your plants as soon as they are pruned, and continue it at frequent intervals throughout the summer, we think you should be able to suppress the black spot trouble. Woburn Bordeaux Paste is an excellent article for all these fungoid pests; it is very easily applied, and if used in conjunction with Arsenate of Lead Paste you can check the ravages of caterpillars at the same time. Both articles can be obtained of Messrs. W. Voss and Co., Millwall, London, who would supply you with full particulars as to the quantity to use.

Height of climbing Roses (*Pergola*).—Most of the varieties you name will attain the height of 8 feet to 10 feet, some of them much more. We should, however, eliminate Leuchtstern and Fellenberg. They are rather slow-growing, and would take some time to reach a height of 8 feet to 9 feet. We should not recommend fish-netting for training Roses upon. We do not care for netting of any sort, as the growths get into the holes, and are a great source of trouble on that account. A few strands of good stout wire will usually answer the purpose of training supports, and there is a greater freedom for the growths.

Sweet Briar hedges (*L. J.*).—It is quite practicable to have a Sweet Briar hedge no higher than 30 inches. You can cut the bushes back to 2 feet this season, and the young growths may be stopped when the desired height is attained. If at any time the hedge becomes too dense, a few of the older growths may be removed either at pruning-time or during the summer. We have seen the Penzance Briars planted as low hedges about 2 feet or 3 feet high. In their case, in order to encourage blooms the growths were tied down horizontally instead of pruning them back. The main thing to avoid is overcrowding of growths, for then the blooms are too much obscured by foliage.

Blairii No. 2 not flowering (*W. S. H.*).—To induce this beautiful Rose to bloom, lateral growths should be encouraged as often as the plant grows vigorously. If the shoots be spread out in a fan-like manner, the sap is checked in its upward flow and diverted to the production of lateral shoots, from which in a year or two you should obtain some good blooms. You might also tie over one or two of the long growths in an umbrella fashion, which would all tend to the production of bloom. Where the outside plant has split its bark, we should advise you to heap up soil around the growth as far as the split has reached. Possibly it is a form of canker, but the soil will induce the formation of roots, and you may thus save the tree from decay. It should certainly succeed outdoors, but we would not advocate planting this variety under glass; rather would we have a perpetual-flowering sort, such as Lady Waterlow or Climbing Caroline Testout.

THE GREENHOUSE.

Dendrobium for opinion (*Orchid*).—The flower you send is undoubtedly Dendrobium nobile, but a rather good form of that variable species. Its value is not great, the price varying from 10s. 6d. to a guinea, according to the size of the plant.

Cutting back an Oleander (*W. H. C.*).—The present is the best time of the year to cut back an Oleander, as it will at once break away into new growth. At the same time, you are not likely to have many flowers this season, and very probably none.

Injury to Primula obconica (*J. P.*).—The markings on the foliage of the Primula obconica are due to the attack upon it of aphis. There are no living insects on the leaves sent, but their remains are in plenty, and the fungus, which usually follows and grows upon the honeydew, is also there. Fumigation is called for immediately these pests are seen. There are also signs of red spider, and watch should be kept for these as well.

Twig of Plumbago for inspection (*Neptune*).—Your Plumbago is affected by a mildew fungus. The branches ought to have been cut well back during January. We advise you to do it at once, and keep the bush well syringed until growth is active again. It is improbable that you will see anything more of the mildew until cutting-back-time next year, but if any should appear, dust the plant over with flowers of sulphur.

Azaleas not doing well (*E. T. L.*).—There is no doubt that the failure of your Azaleas is due to the roots being in a very poor state, and till this is remedied they will go from bad to worse. At the same time, it is not an easy matter to restore Azaleas to health when they are in such a poor condition. The present, however, is a good time to take them in hand. If at all straggling, the shoots must be shortened back to bring them into a shapely state, and as soon as the young shoots are about half an inch in length the plants must be repotted. If they do not need cutting back in any way, they may be repotted at once. The best soil for the purpose is good fibrous peat and sand. The pots must be clean and effectually drained, and their size will depend upon the condition of the roots. On turning the plants out of their pots and examining the balls of earth it will in most cases very probably be found that a good deal of the old soil may be removed without injury to the roots in any way. When this is done, the size of the pot required can be determined, and possibly in many instances a smaller pot than that in which they have been growing will be large enough. This point, however, can only be settled on examination. In repotting, care should be taken to work the soil regularly and firmly around the old ball of earth, which must not be buried deeper than it was before. Previous to potting it should be ascertained that the soil is in an even state of moisture, as if too wet or dry the operation cannot be carried out properly.

KITCHEN GARDEN.

Potatoes for exhibition (*A. G.*).—Two good round white Potatoes for exhibition are Windsor Castle and The Provost. Two good white kidney Potatoes for the same purpose are Sir J. Llewelyn and White City. One smooth yellow-fleshed kidney is Midlothian Early. But it is not wise to limit yourself to so few varieties where tubers are wanted for exhibition, and you might add, of white, White Round, British Queen and Dobbie's Favourite; of kidneys, Lady Llewelyn and Sharpe's Express; and of yellow-fleshed kidneys, Duke of York.

Supply of vegetables for five persons (*Subscriber*).—Your question is a difficult one to answer definitely, because some five persons would consume far more vegetables than others, and also because the returns obtained from the soil depend so much on the quality of the soil and on its culture and management. However, basing our judgment in the matter on returns obtained under ordinary garden culture from fair quality soil, we think that three-quarters of an acre should give an adequate supply. It would be necessary to grow a ton of Potatoes (reckoning waste and diseased tubers). This would take about one-seventh of an acre, thus leaving a good margin for other successional crops.

Tomatoes for profit (*S. L.*).—Anyone intending to grow Tomatoes for market purposes should combine outdoor and under glass crops. Occasionally, when the weather is favourable, the outdoor crops pay very well. We believe that, although there are immense quantities of Tomatoes now grown throughout the country for market under glass, it is still one of the best paying crops we have. But whether the crops do or do not pay depends almost entirely on the practical knowledge, hard work and business aptitude possessed by the grower himself. It is, we think, quite impossible for a novice in the work to make the business pay, even if helped by hired skilled labour. Practical knowledge and industry in the owner are absolutely necessary to success. If you have had no experience in the work, you had far better spend a year or two in a garden where they are extensively grown for sale, and thus gain this knowledge.

MISCELLANEOUS.

A ball of moss (*L. S. O.*).—The moss is a common inhabitant of many woods, having pale green, almost straight and rather thick leaves and a cushion-like habit of growth. It starts life like other mosses, attached to wood or leaves or earth, but is often kicked or blown from its anchorage. As it shares with sphagnum moss the peculiarity of having pores in certain of its cells, which enable it to take up water with great readiness, it is not likely to suffer much when the weather is damp, but will grow and branch until sometimes globes of moss are produced. The sponge-like structure of its leaves also enables it to retain moisture very well, though mosses may be dried for a time without real injury, growing again when moisture is available.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE VALUE OF HORTICULTURAL EXPERIMENTS.

IN another column we publish particulars of a new experimental station which has been formed by Mr. C. C. Hurst for the purpose of investigating more fully Mendel's laws, particularly in their relation to plant-life. That such investigation is necessary all who have worked on the lines suggested by Mendel will agree; the subject is still far too complicated for the average gardener to grasp fully, and any experiments that will elucidate matters will be most welcome.

But it is not of Mendelian laws that we would now write; rather would we draw attention to the vast number of horticultural experiments which are at the present time being conducted in practically all parts of the country. In addition to what we may term the large, central stations, like the Duke of Bedford's farm at Woburn and the John Innes Horticultural Institution, most of the county councils and horticultural colleges have plots set apart where experiments, both useful and otherwise, are conducted.

The value of the results of these experiments to practical gardeners, judging by the vast sums which are spent in carrying them to a successful conclusion, ought to be very great indeed, and many of the results have been, and still are, turned to practical account. Indeed, never in the whole history of gardening has the grower had so much information concerning diseases of plants, soils, manures and other important subjects tabulated for his benefit. Unfortunately, this information is not regarded with much favour by the average gardener of to-day. Old ideas and methods naturally die a lingering death, and gardeners can scarcely be severely blamed for clinging to methods which they have found answer their purpose moderately well, even though there may be others which would give better results. The manner in which many experiments are conducted also leaves some room for criticism by the practical man. Manures, soils and diseases of plants may, and often do, act differently when under complete control of the experimentalist than when they have to be dealt with under ordinary everyday conditions of gardening. For that reason the grower is apt to adopt an attitude of scepticism in relation to the results of experiments, and so miss much that would be of value to him if due allowance were made for the difference in existing circumstances.

To the thoughtful student of horticulture in its broadest sense the question now arises: Are these experimental stations being overdone? We do not think they are; but what we do think desirable is that they should all work as far as possible in unison rather than as isolated units. Many so-called experiments are still being conducted, at considerable cost, ostensibly to prove that which has during past years been proved over and over again, the advisability of sprouting seed Potatoes and the removal of grass from over the roots of fruit trees being two examples that occur to us at the moment. Such efforts, in the light of present knowledge, are wasted, and the energy and intelligence of those responsible for carrying out such useless experiments might well be directed into more profitable channels. Some sort of mutual agreement or understanding between the various experimental stations would, or should, avoid such waste, and also avoid the overlapping of experiments that must occur when each station is working as a separate unit.

On the other hand, the growing for trial of vegetables, fruits and flowers, such as is done by many county councils and such bodies as the National Vegetable Society and the National Sweet Pea Society, may well be duplicated in various localities with a view to ascertaining which sorts are best for different soils and localities. Such trials come under a different category to the experiments referred to above, and examples of which are quoted. The results of these trials are also regarded more kindly by the average gardener than are those of the other type, possibly because they are more easily understood, and because their value, though not actually greater, is more apparent. In addition to determining the best varieties for certain districts, such trials indicate to some extent the multiplicity of names which exists among varieties of most kinds of flowers and vegetables, a multiplicity which becomes more confusing every year to the average gardener.

To experimental work present-day gardening owes a great deal, and it is not with a view to casting reflection on such work that we draw attention to the vast dimensions it has attained, but rather that the best, most valuable and most comprehensive results may be obtained from such labours and expenditure.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 19.—Royal Horticultural Society of Ireland Show (two days). Devon Daffodil Society's Show at Plymouth (two days). Huntingdon Daffodil Exhibition.

April 20.—Ipswich and East of England Spring Flower Show.

The Gardeners' Royal Benevolent Institution.—The Queen has sent £10 10s. and Queen Alexandra £25 in aid of the funds of the above institution, of which Their Majesties are patronesses.

Daffodils from Cornwall.—An interesting display of Daffodils has lately been exhibited in the windows of Messrs. Barr and Sons' establishment at 11, 12 and 13, King Street, Covent Garden, London. All of the flowers have been sent up from Messrs. Barr's new Daffodil garden in Cornwall. About seventy varieties were on view last week, all of which were looking fresh and clean, and none the worse for their long journey. The grand variety King Alfred was shown in quantity, likewise Lucifer, Sunrise and Mikado.

New director of "The Times" Experimental Station.—We understand that Mr. Silas Cole, head-gardener to the Right Hon. Earl Spencer, K.G., has been appointed director of *The Times* Experimental Station at Guildford, where he will succeed the late Mr. Charles Foster. Mr. Cole has been head-gardener at Althorp Park Gardens, Northamptonshire, since 1892. In 1902 he secured the first waved Sweet Pea, which he named Countess Spencer, and which was the forerunner of all the beautiful waved varieties now in existence. Mr. Cole is a good, all-round gardener, and we wish him every success in his new sphere.

Rhododendrons at the Royal Horticultural Hall.—Messrs. John Waterer and Sons, Limited, inform us that they intend holding a special exhibition of Rhododendrons, conifers, evergreens and other shrubs at the Royal Horticultural Hall, Vincent Square, S.W., from May 30 to June 2 inclusive. Fellows of the Royal Horticultural Society will have the usual privileges of admission to the exhibition free. There will be a charge for admission for the general public. Messrs. Waterer have arranged to include in the exhibition bulbs and other flowering plants by Messrs. Barr and Sons of Covent Garden. The firm has also concluded arrangements with the Royal Botanic Society to hold their usual annual exhibition of Rhododendrons in the gardens at Regent's Park, opening on June 6.

Exportation of Potatoes to Jersey.—The Board of Agriculture and Fisheries desire to inform Potato growers and merchants in Scotland that the States of the Island of Jersey have adopted an Act authorising the importation of Potatoes from certain districts in Scotland from the 25th ult. to May 31 inclusive, on the following conditions: 1. The Potatoes imported must form the sole cargo on the vessel, and must come direct from the district where they were grown, to be sent to Jersey direct from the port of landing. 2. Each cargo must be accompanied by a solemn declaration by the shipper, attested by a notary or commissioner of oaths, giving the place of origin of the Potatoes and certifying that they have not been grown in land or soil affected by wart disease of Potatoes. 3. Each cargo must also be accompanied by a certificate of the Board of Agriculture and Fisheries to the effect that the district in which the Potatoes were grown is free from disease. Intending exporters of Potatoes to Jersey should, when applying to the Board for a certificate, forward the declaration from the grower of the Potatoes referred to. The declaration should state the parish in which the Potatoes were grown.

A new experimental station. — An experimental station has recently been organised at Burbage, Leicestershire, by Mr. C. C. Hurst for the purpose of applying Mendelian methods of research to the practical breeding problems of agriculture, horticulture and forestry. To provide land, labour, buildings and material for the station work, the Burbage nurseries will be utilised as far as possible. These nurseries (originally established by Mr. Hurst's great-great-grandfather in the eighteenth century) now extend over more than one hundred acres, and at present consist of some twenty acres of fruit trees, five acres of orchards, twenty acres of farm and garden seeds, ten acres of Roses, ten acres of ornamental trees and shrubs, five acres of Rhododendrons, one acre of herbaceous plants, and ten acres of old pasture land (ready for breaking up), together with numerous greenhouses and buildings. Experiments are already in hand with the following plants: Mangels, Swedes, Drumhead Cabbages, Peas, Apples, Plums, Gooseberries, Strawberries, Blackberries, Roses, Rhododendrons, Azaleas, Sweet Peas, Orchids, Geraniums, Antirrhinums, Primulas, Peaches, Vines, Tomatoes, Aucubas, Berberis, Yews, Hollies, Cupressus, Birches, Pines, Firs, Quicks, Ash and Oaks; other subjects will be put in hand as opportunity offers. At present the station staff is constituted as follows: Director, Mr. C. C. Hurst, F.L.S.; recorder, Mr. J. B. Perkins; secretary, Mr. W. Harding; agriculturist, Mr. S. Evans; horticulturist, Mr. G. Geary; florist, Mr. G. Dakin; and poultry expert, Mr. J. Ward. A report of the work done will be published at the end of each year. Every facility will be offered to students and workers in genetics to carry out experiments at the station.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Flowers and bazaars.—One very pleasing feature of the Royal Horticultural Society's meeting and exhibition on the 14th ult. was the absence of that objectionable bazaar element which has occupied far too much space in the past. Fellows of the society and visitors in attending the meetings naturally, and rightfully, look for horticultural objects only. On the 14th no others were presented, the tables and floor spaces being literally crammed with myriads of varied and beautiful garden products. It has long been noticeable, and has privately been freely commented upon, that while the attendants or representatives of the horticultural trade personally invite no one to inspect their exhibits, they are always ready in the most courteous way to give visitors all desired information or to book orders if any such be given. But the attendants with non-horticultural exhibits have very boldly canvassed for trade, and in that respect have given offence to those not visiting there to purchase, presenting a striking contrast to the conduct of the horticultural trade attendants.—VISITOR.

New colours in Sweet Peas.—While we hear and read of those desiderata in Sweet Pea coloration—the Scarlet Geranium hue, the yellow of the Coreopsis and the blue of the Salvia patens—is it not commonly held that races of flowers which produce proper blues seldom produce proper yellows? There may be exceptions, as found in the Pansy; but such are not found in the Rose, Begonia, Zonal Pelargonium, Calceolaria, or in myriads of other flowering plants. Blue is the ground colour of Delphiniums, of Salvia patens, of Nemophila generally, of Phacelia, of Lobelia speciosa, of many Campanulas and numerous other species or families of plants; but none produces yellow flowers. What is now described as yellow in the Sweet Pea is too pallid by far to merit that designation. There is much closer approach to true blue as seen in Lord Nelson and to scarlet as found in Queen Alexandra; but the possibility of getting a real yellow seems to be Utopian. Possibly, working on Mendelian lines, some raisers may be crossing with that result in view, but if colour combinations refuse to or cannot come, then such attempts may be in vain. Evidently it is all a matter of vegetable physiology.—D.

Flavour in Potatoes.—Few things seem more difficult to determine by agreement than what constitutes true flavour in Potatoes, but there have always been a few varieties that have been regarded as good-flavoured by some persons; whether really justified or not is not always assured. Obviously, it was held some thirty to forty years ago that our finest-flavoured varieties were the old Ashleaf Kidney, Paterson's Victoria and the Lapstone Kidney, and each of these had a moderate proportion of yellow colour in the flesh. The old York or other Regents, even the famous Dunbars, were of whiter flesh, very dry and flaky, and generally most favoured for such reasons; but these had not that quality of flavour found in the yellower-fleshed Victoria. Mr. J. M. King of Romford, who claims to have in a seedling, coloured skin variety, one of very high flavour, tells readers that it has very white flesh. I have never known a high-flavoured Potato to have quite white flesh; hence the description he gives of his seedling makes it all the more interesting. It is with the old Ashleaf, Village Blacksmith, Peacemaker, White City, Factor and Midlothian Early, mentioning just a few reputed good-flavoured Potatoes of to-day, that Mr. King's seedling should be tested. In the matter of cooking I have always found Mr. Jordan of the Royal Horticultural Society to present Potatoes in a most admirable way. Where the tubers have starchy flesh and are cooked in their skins, the cooked tubers come to the table of the fruit and vegetable committee with burst coats, and to those who prefer tubers so cooked present a very tempting appearance. That is the kind of cooking test which is essential in any flavour competition, and I know of no body better qualified to control such a test than that committee. But it would be useless to send for such a cooking trial fewer than six fair-sized tubers of each variety. A cooking trial of one variety only would have no material value. It must, however, be understood that while all varieties of Potatoes may have in them some sort of flavour, more or less developed, so very much is due to the nature of the soil in which they are grown. Mr. King cooks his Potatoes for a flavour trial with salt. No genuine test of inherent Potato flavour can be furnished when salt is used in the cooking or eating. When such is used it is the flavour of the salt which dominates all else. I like a little salt with cooked Potatoes as well as anyone, but it is because I like the salt flavour.

Protecting native plants.—The Selborne Society is undertaking an onerous duty in proposing to take action with respect to the protection of native plants. That it may be able now and again to prosecute depredators is possible, but to protect all wild plants is out of the question. No doubt the chief offenders are those collectors



ME GOOD AURICULAS

GREY EDGED GEORGE LIGHTBODY

GREEN EDGED PRINCE CHARMING

who find a sale for their Ferns, Primroses, or other plants in shops and markets, and the only way to deal with those persons is to get an Act of Parliament passed rendering the sale of such things illegal, unless it can be proved they have been grown in nurseries expressly for sale. Collectors of the botanical kind also, no doubt, do great harm, especially in removing from their habitats any rather rare British plants they may come across. All such plants go into their little herbariums, and thus are lost to Nature and to the country. But our chief need in relation to our best and especially rarest British plants is the establishment for them of a nursery home, where, grown under the best-provided natural conditions, they shall be not only protected, but preserved, increased, and induced to produce seed. Were that so, so far from the country being, as is at present the case, robbed of so much of its more rare or beautiful native flora, its increase through nursery-saved seed might find a great impetus. We have allowed our gardens to be so crowded with imported plants, all so very beautiful, that native plants have had but scant attention given them, except for botanising or vending purposes. Of course, there are myriads of native plants we care nothing for, plants that are commonly described as weeds. No one cares much for these, although a big breadth of scarlet Poppy or of yellow Charlock in an arable field, or a mass of Dandelions in a meadow, may be picturesque and even charming. Cannot the Selborne Society provide a wild or native plant nursery garden, and thus ensure that its floral pets have a home where the collector may not enter or steal ?—A. D.

Melon culture in frames.—Having for many years been a successful grower of these fruits, both in suitably-arranged houses and frames, I was very much interested in " W. B. H.'s " notes (page 131 of the issue for March 18), and fully agree with the writer that old practitioners know only too well the need and value of a warm bed of manure and leaves and the making up of linings to hasten the growth and production of a good crop of highly-flavoured Melons. Years ago, I need hardly remark, this system was the only dependable way to obtain a crop of these fruits. It is still very successfully practised where properly-arranged Melon-houses are not provided, and more especially so in the less favourable parts of the country. In the South I have grown very nice crops with no bottom-heat whatever, and in precisely the same way as mentioned by your correspondent ; but this method entailed a deal of extra care and attention to get the crop ripened in fairly good time. When I grew Melons in cold frames which had been previously occupied with Violets or Potatoes, the only preparation as regards the soil was the removal of a portion of the old material 2 feet wide and 6 inches deep right along the centre of the beds, replacing it with a more suitable compost made rather firm. The plants were prepared expressly for the purpose, growing them along to a good size—two in a 4½-inch pot—and as sturdily as possible. About the third week of May the plants were put out without disturbing the roots at a distance of 2 feet apart, training one plant upwards and the other downwards till they had grown to within 1 foot of the sides, when they were stopped and attention duly given to the fruiting laterals. It is needless to remark that the plants in bad, sunless weather required a great deal of very careful attention. In this way I have grown, among other varieties, Lord Beaconsfield, Hero of Bath, Gilbert's Victory, High Cross Hybrid and Munro Little Heath. To attempt to grow Melons in the same way as Marrows, as mentioned by " W. B. H.," would, I fear, end in total failure.—MIDDLESEX.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

ONIONS.—The plants which have been growing under glass must be well hardened off preparatory to being planted out. The ground will have been previously well prepared and heavily manured for this crop. When the ground is in suitable condition, take advantage of a nice genial day for planting them out in rows about 15 inches apart and 12 inches between the plants.

Celery.—The earliest plants must be given plenty of air, and, except when frost or inclement weather is imminent, the lights may be entirely removed, so that they may be thoroughly hardened before planting out. Prick out later plants on a moderately warm hot-bed.

Asparagus.—Carefully prick up the surface of the beds with a fork and apply a good dressing of salt. Seeds may be sown now on light, well-tilled soil in rows about 18 inches apart.

Seed-sowing.—Most people have their own particular time for sowing seeds of the various winter crops, and rightly so, for this important work depends in a great measure on the nature of the soil and situation; but as a general rule the latter part of this month and the beginning of May is the most suitable time to sow seeds of Broccoli, Savoys and all winter greens. To ensure that the plants be as short-jointed and hardy as possible, sow the seeds in poor soil in drills about 12 inches apart.

French Beans.—If cold frames are available, a sowing of these may be made to follow the indoor crops. A batch may also be sown in small pots for planting outdoors in a sheltered position. These will be all the better if they are germinated in a house of moderate warmth and afterwards hardened off in a cold frame.

PLANT-HOUSES.

Euphorbia pulcherrima.—Cuttings of these may now be inserted. These are best planted singly in 2½-inch pots in a compost consisting of leaf-mould, peat and sand. The soil must be thoroughly warmed through and everything be in readiness, so that the cuttings may be placed in the propagating-case without delay. They must be plunged in a hot-bed of about 80° and shaded from sun till they are rooted. Cuttings of E. jacquiniæflora may also be put in now. These will require much the same treatment as the above, except that four or five cuttings may be inserted round the sides of 3-inch pots.

Salvias.—Cuttings of these may be inserted now. No garden should be without a good batch of S. splendens and its varieties, S. azurea grandiflora and S. Heeri. They are all of easy culture, and when established may be grown outdoors plunged in ashes during the greater part of the season.

Edging Plants.—Batches of the various kinds of plants which are used for furnishing the edges of stages in plant-houses must be grown to replace old plants. Isolepis gracilis gives a wonderfully fresh and finished appearance to plant-houses. These are usually propagated by division and grown in a moist, warm house, where they quickly make nice plants. Cuttings of Panicum variegatum, Tradescantias, Pilea muscosa and Selaginella kraussiana may be placed in small pots for this purpose. The two latter are invaluable for various kinds of decorative work.

Royal Gardens, Windsor. E. HARRISS

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—Midseason and later Vines are now in various stages of growth. Disbudding should be attended to as soon as it can be determined which are the strongest and best-placed shoots. The pinching and tying down of those further advanced should also receive attention. Shoots should be pinched at the third leaf beyond the bunch and tied down to the wires gradually. If it is attempted to draw them down to the position at one operation, many will break off. The removal of a considerable number of the bunches may be done at the time of pinching, leaving the final thinning till after the fruit is set, when a proper selection of the finest bunches in the best positions can be made. During the actual flowering period the atmosphere of the house must be kept somewhat dry and the temperature raised by 5°. Artificial pollination may have to be resorted to in the case of shy-setting varieties, using pollen from well-known free-setting sorts. When the berries are well set, a moist atmosphere must be again afforded them, damping all available surfaces in the house. Strict attention to ventilation is also necessary, for at this season cold blasts and hot sunshine alternate with annoying suddenness. When the fruits commence to swell, thinning may be started, and to perform this properly a knowledge of the peculiarities of the different varieties of Grapes is essential. Where the thinning is performed intelligently, one operation will generally suffice; but it is sometimes necessary to look over them again just before the colouring stage to remove one or two berries where they are seen to be crushing each other. A good deal can be done with the shears at thinning-time to ensure well-shaped bunches.

Young Vines.—These should have a suitable leading shoot selected to form the foundation of the permanent rod, which must be carefully trained as straight as possible. After making growths of about 4 feet, the leaders may be stopped, which will cause the shoots to strengthen and develop their buds. Secondary growths may afterwards be left to grow freely, as this will stimulate root action and bring about what is always desired —a border well filled with roots. When Vines are in full growth and in properly-drained borders, it is hardly possible to overwater them ; but young Vines in well-constructed borders should need no stimulants.

Peaches.—Considerable attention is necessary in the matter of watering, heating and ventilation until after the stoning period, as any great fluctuations in temperature, excess of water, or the roots suffering from drought may cause fruit-dropping, and it is well to leave the final thinning of the fruits until after this stage. When the second swelling has begun, those who are anxious to have ripe fruits as early as possible may raise the temperature considerably until they begin to show colour, when a more airy condition will be necessary to ensure good flavour.

Melons.—These are now growing freely, and during sunless weather, should extra fire-heat be necessary, watering must have close attention, as the roots soon penetrate to the warmth, and if allowed to become dry it will have a disastrous effect on the plants should sudden bursts of sunshine occur. Endeavour to have the requisite number of fruits set about the same time to ensure a regular crop. When the fruits are swelling, surface roots should be encouraged by occasional top-dressings of some reliable artificial manure.

THOMAS WILSON
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE GREENHOUSE.

HYACINTHUS AZUREUS AS A POT PLANT.

THIS charming little bulb has been in cultivation for over fifty years, but has not been generally known in gardens for more than a third of that period. It comes from Asia Minor, the home of many of our early spring-flowering bulbs, like Chionodoxa Luciliæ and its varieties, Galanthus Elwesii, G. Ikariæ, Iris reticulata and others. It is a dainty little plant, growing about 6 inches high, bearing a conical raceme of deep blue or sometimes turquoise blue flowers. It is rather variable in habit, and there are two or three forms in cultivation. H. azureus var. giganteus (robustus) is a larger form from Northern Cilicia. Perfectly hardy, it is suitable either for the select border, rock garden, or for growing in pans for the alpine house. The illustration shows a 7-inch pan of bulbs in flower. These bulbs were potted up in the autumn in a mixture of loam with plenty of grit and leaf-soil. During the winter the pans were plunged to the rims in ashes in the open, and only taken into the alpine house when the flowers were in evidence. It is exceedingly attractive when used as an edging to Daffodils in pots and bowls, the pale blue colour harmonising well with the yellow of the Daffodils. Planted in a sunny border, the flowers appear in February, and as they are of a robust nature, the bad weather does not affect them very much. In such a position they will increase freely and produce numerous flower-spikes. In the rock garden the bulbs may be planted among other low-growing carpeting plants that do not form too dense a mat. This plant is also known under the name of Muscari azureus, but it differs from the species of that genus in the flowers having an open mouth with spreading segments. However, the genus Muscari is so closely related to Hyacinthus that the two are sometimes regarded as synonymous.



THE SKY BLUE GRAPE HYACINTH (HYACINTHUS AZUREUS) AS GROWN IN A COLD GREENHOUSE.

A VALUABLE EARLY-FLOWERING IRIS.

(I. BUCHARICA.)

THIS beautiful Iris, having been in cultivation for about ten years, has proved a valuable acquisition. Its worth was recognised, when first exhibited at one of the meetings of the Royal Horticultural Society in 1902, by the award of a first-class certificate. Since then it has been grown more extensively, and has fully justified the opinion then formed of it. A plant of robust habit and very free-flowering, it is equally well adapted for the sunny border or for cultivation in pots for use in the alpine house. It belongs to the Juno section of the family, and is closely allied to the well-known and beautiful yellow-flowered I. orchioides, from which it chiefly differs in having almost sessile flowers of a lighter colour. The plant is of an erect habit of growth, with stems 18 inches high, clothed with shiny green, arching leaves, in the axils of which the flowers are freely produced. The flowers possess a beautiful combination of colours, the dominant one being white in the upper portion, while the falls and crest are of a rich golden yellow, with deeper-coloured veins in the blade. I. bucharica has proved to be quite hardy in well-drained soil in a fairly sunny position. It requires an abundance of moisture when in full growth, and when preparing a place for it the soil should be deeply dug and plenty of mortar rubbish mixed in with it. Its value as a pot plant may be judged from the illustration on page 177, showing plants in flower at the beginning of April. For this purpose the bulbs were potted up in the autumn, care being taken not to break off the fleshy store roots. Loamy soil of a sandy nature was used, and afterwards the pots were plunged to the rims in ashes for the winter, and only moved into the house when growth commenced. This species comes from Eastern Bokhara, where it is found on mountain slopes near the edges of streams at a high elevation.

Belonging to this group of the family are several other handsome kinds, which will succeed under the same conditions and form suitable companions for the species named. One of the best is I. orchioides, with its rich yellow flowers. Another is I. warleyensis, which may be described as a purple-blue orchioides, with flowers varying in colour from pale to deep violet. The deeper shade is upon the blade of the fall, which is again margined with white. I. willmottianum has lavender or pale purple flowers blotched with white, while there are deeper purple marks on the blade of the fall. Others of hardly less interest and beauty are I. caucasica and I. sindjarensis.

All the foregoing are perfectly hardy, especially on a sunny south border or in sheltered nooks in the rock garden, where, if left alone, they increase freely and give a profusion of flowers in April. W. I.

MARGUERITE CARNATIONS AS GREENHOUSE PLANTS.

AT the present time there are some very fine strains of these plants. About 85 per cent. of double flowers are borne on well-grown specimens. In some instances the percentage of double flowers is higher.

When I first began to grow the plants in pots for the furnishing of the greenhouse and conservatory from the best strains that I could procure, only about 40 per cent. produced double flowers. I was induced to commence the cultivation of Marguerite Carnations by a large nurseryman in the North Midlands, who kindly conducted me through the nursery. This visit was paid towards the end of September, and when we came to one long, low, span-roofed house, he opened the door, stood back and said, "There you see a batch of useful and beautiful flowering plants easily raised from seeds in a short time." He further remarked upon the strain and the usefulness of the flowers at a season of the year when flowers were generally scarce, namely, during the last three months of the year.

I am writing this note for the benefit of readers of THE GARDEN who wish to grow and flower Carnations in their greenhouses and conservatories. Plants must be raised from seeds sown during April. I will presume that readers have some seedlings now growing in pots or pans. When possessed of three or four leaves, the seedlings should be carefully potted separately in small pots. I prefer to pot them at once instead of transplanting them in other pans or boxes, because I find it is more difficult to get them established in pots when they are larger. The work of repotting afterwards is always done safely; that is, the tiny plants in small pots do not suffer any check when they are transferred to larger pots.

A suitable compost is made up as follows: Fibrous loam three parts, leaf-soil and rotted manure one part. To one bushel of the above add a 7-inch potful of sand and a 6-inch potful of old mortar rubble. The same kind of compost may be used for the plants each time they require repotting, only at the earlier pottings the soil must be somewhat finer. The final potting should be done in 6½-inch pots. Press down the soil moderately firm, be very careful not to over-water during the first three weeks after repotting, and leave all feeding to be done when the buds show; then regular supplies of weak soot-water, diluted manure-water and some artificials must be afforded. The points may be pinched off a few plants to cause a more branching habit. Keep the plants in a cool frame and admit plenty of air through the summer, removing them to the greenhouse at the end of August, after which their flower-buds may be allowed to develop. AVON.

THE ROSE GARDEN.

HOT-BEDS FOR POT ROSES.

DURING April a bed or pit of good stable manure as an aid to Rose-growing in pots is marvellously effective when established plants are used; indeed, autumn-potted plants placed now on a manure-bed will soon respond to the genial warmth at the roots by putting forth strong, healthy growths. The manure should be well turned over three or four times, and if possible some leaves added from the woods, as these keep up a more continuous heat than if manure alone is used. Care is needful that the bed is not too hot; but this may be guarded against by inserting a stick in the centre of the bed and testing it occasionally. Roses grown in this way come along with that natural appearance of foliage we all delight to see, and the ammonia given off by the manure is in itself a good stimulant. Very little top ventilation is required, save when the sun shines out brightly for any considerable time. On no account give side ventilation. Slight syringing in the morning about 10 o'clock maintains that genial growing atmosphere in which Roses delight, vastly different to the dry, parching air of an artificially-heated house, unless great care be exercised in damping down sufficiently. Roses potted from the open ground last October and plunged in ashes outdoors may now be pruned and brought into such a cold house, and we may confidently look for a nice display of blooms about the end of May and early in June, just when such plants would be valuable, being a few weeks earlier than the outdoor Roses.

HALF-STANDARD ROSES TRAINED HORIZONTALLY.

I HAVE often found there is much to learn in the way of garden craft by visiting some of our village church gardens. Chancing to visit the very pretty churchyard adjoining The Goldings, near Warley, Essex, I found some splendid beds of Roses which were the picture of health, and a fine long hedge of Crimson Rambler and Dorothy Perkins that would alone be worth a journey to see. But what struck me most were some half-standard Tea and Noisette Roses trained horizontally upon two rows of iron supports. Instead of pruning away the long growths, as so many do, these were trained on to the ironwork, and had been so trained for some years, for they were studded with a mass of stumpy laterals that would doubtless give a fine display of bloom in the summer. In this favoured part of Essex, where Roses seem to revel in all their splendour and vigour, many varieties could be so grown which it might be risky to try in less-favoured parts. I do not know what the varieties were that I saw, excepting that some, I believe, were W. A. Richardson; but I should not hesitate to try in this way that very shy bloomer Climbing Devoniensis, and to obtain a free floral display of this delightful old Rose would be well worth any amount of trouble.

By so training the growths upon trees trees planted in narrow borders, we are able to plant other subjects in the borders, for they would not be very densely shaded. We are now having introduced to our gardens a number of climbing sports of popular Roses, such as Climbing Lady Ashtown, Climbing Liberty and Climbing Killarney, so that the opportunity is offered to anyone to plant these and train them in the way mentioned, for no doubt they will soon be available as half-standards; and there are other Roses, such as Hugh Dickson, J. B. Clark and Mrs. Stewart Clark, that would be particularly adaptable for this mode of cultivation. The trained growths would last good for two or three years, and there would always be young growths produced each year ready to take their place when discarded. There is nothing like variety for adding charm to a Rose garden, and different methods of growing different types should be adopted where it is possible to do so without detracting from the garden as a whole. P



THE RARE IRIS BUCHARICA AS A GREENHOUSE PLANT.

THE KITCHEN GARDEN

THE EARLIEST SPRING CABBAGES.

THE new Cabbage Harbinger is a splendid introduction, being a great advance upon older varieties, and, though small, there is no waste, as the growths are compact and the plants can be grown close together. Last season I grew some half-dozen of the earliest-known varieties, and Harbinger was about three weeks in advance of them all.

For some years I grew Early April for a first supply, and it was in every way very good. Like the newer variety, it is by no means a large Cabbage, and it was a great advance on the older Dwarf Early Ellam's. The last-named has done good work in providing an early supply for the past twenty years, but, like most Brassicas, in time it is difficult to keep true. With the introduction of the earlier and dwarfer types of the present day we now have some very fine early Cabbages to select from.

The amateur is severely handicapped, as often seedlings are purchased as one thing and turn out quite another, unless the purchaser goes to a good source. It is a great disappointment to plant a so-called early variety and to see, about June or July, the plants turn in huge heads somewhat like a Cow Cabbage. It does not really pay the grower to keep the early crop on the land after the heads are cut. I am aware this view will not be a general one, as the old practice has been to grow Sprouts; indeed, I have often seen the same lot of Cabbage occupy the land for two years. This is neither good for the land nor profitable to the grower. By clearing the land more frequently better culture can be given.

I have not touched upon that important point, the bolting of early varieties, and this is now very rare with the newer kinds, as in the National Vegetable Society's trials Harbinger, Flower of Spring, First and Best, Wheeler's Imperial, Early Evesham, Early Market, Ellam's Early (a true stock), Myatt's Offenham and Early Feltham were remarkably free from this defect; whereas I can remember many years ago stocks of the then early varieties were much affected. These early varieties were given a trial on diverse soils, such as the loamy soil on a gravel base at Twickenham, a sandy loam at Sutton Green, Guildford, and on the heavy clay soil at Romford, which was most instructive, and proved the great advance made in the early Cabbages of late years.

Sowing and Planting.

As regards sowing, much depends upon the locality and soil, but it is a safe plan to sow early Cabbage from the middle to the end of July. Give the seedlings ample room in the seed-bed, so as to be able to get sturdy planting material, and plant out before the growths are too much advanced, say, in

September. Many good cultivators recommend a rich root-run for this crop, whereas I have always found it best in a light soil to plant in what may be termed firm land. For instance, our crop invariably followed the Spring Onions. There was no digging or manuring, the surface being merely hoed over and drills drawn. Grown thus at the start the growth is sturdy, the plants are hardier, and it is an easy matter early in the year to give a quick-acting fertiliser. G. WYTHES.

TREES AND SHRUBS.

A NEW OSMANTHUS.

(O. DELAVAYI.)

AT present the value of the Osmanthuses cultivated in gardens lies in the ornamental evergreen foliage, for, although the blossoms are fragrant, they cannot be considered by any means showy. O. Delavayi, the new arrival from China, promises to be a useful spring-flowering evergreen shrub, and, unlike the common Osmanthus, which has axillary flowers, the subject of this note has terminal inflorescences. The flowers are white, tubular in shape, with an expanding mouth. The leaves are small, somewhat Boxlike in character, rich dark green in colour, with distinctly serrated edges. Two plants of it have been growing outside for a year at Kew, but the past winter has not been severe, and can hardly be considered a sufficient test of its hardiness. Judging by the specimen exhibited by Messrs. George Paul and Son of Cheshunt at a recent meeting of the Royal Horticultural Society, and of which an illustration is given, it should prove a useful pot plant for the cool greenhouse in early spring.

We are indebted to the Abbé Delavay for the introduction of this plant to our gardens. He collected seeds in Yunnan about ten years ago and forwarded them to M. Maurice de Vilmorin. Only one plant is said to have been successfully raised from these seeds, and it says much for our Continental friends as propagators, for the plant last year was listed in the French catalogues. Cuttings root comparatively easily, but the probability is that grafting has also been practised, an art in which our neighbours excel. A. O.

PRUNUS TOMENTOSA.

THIS is the first of the dwarf kinds of Prunus to open its blossoms, and in point of earliness it may be classed with the Myrobalan Plum (P. cerasifera), for its blossoms commence to expand about the middle of March, and they are at their best before the end of the month. P. tomentosa is a native of China and Japan, and belongs to the Apricot section of the family. If left alone it forms a bush 5 feet high and 6 feet or more across within ten years of its seedling state, while from the time it is two or three years old it may be expected to blossom freely. The flowers, borne along the whole of the previous year's growth, are white in colour, slightly flushed with rose. Unfortunately, they are rather fragile; therefore a violent storm of wind or rain while they are at their best seriously injures them. This, however, need not deter prospective planters from including a specimen, for it is usually possible to find a sheltered position for an early-flowering shrub. D.

COLOURED PLATE.

PLATE 1423.

THE AURICULA.

THIS may be well described as a good Old English flower, for it has certainly been in cultivation since the time of Queen Elizabeth. The old herbalists wrote about it, especially Gerard and Parkinson; but the flower, as far as we may judge from the woodcuts and descriptions, had not the least resemblance to those now in cultivation. But there must have been ardent admirers and cultivators in those days other than the silk-loom weavers of Spitalfields, near London, and in Lancashire. When John Rea, Gent., published his Flora in 1676, the Auricula had taken on many delightful shades of colour and stripes. The latter may sometimes appear among seedlings, but none has become established in collections. It is evident that nothing resembling the edged Auriculas such as we now have in collections were known in Rea's time, but the self-coloured Auriculas were being raised from seed when Rea was writing the Flora.

The Rev. John Downham had raised some self Auriculas. One was named The Fair Downham. Rea adds, "He was an industrious florist from whom I had this and divers other fine flowers." There was also Mr. Good's purple Auricula, which "bore a great truss of many fair fine rich purple flowers, with snow white eyes." It was raised by a "Mr. Austen in Oxford, who gave it to Mr. John Good of Baliol Colledge, whose now it is called." Even ladies had taken up the work of raising seedling Auriculas. Mrs. Buggs of Battersea raised a fine purple self something after Good's purple, but a "deeper purple with broader white eyes."

A Mr. Whitmore of Hodgsden also produced a purple self, but two "black" selfs are described—one the Black Imperial, the other the Black Emperor. The Black Imperial was raised at Oxford, probably by Austin. Mrs. Buggs and Sir Thomas Hanmer also raised striped varieties. Rea likewise raised some, and it is quite certain that the raising of Auriculas had passed out of the hands of the silk-loom weavers into the hands of wealthy people, the owners of good gardens; and by following up the later writers on gardening matters we find that it was not until the last half of the eighteenth century that edged Auriculas began to take their place among the selfs and striped varieties. We may safely fix about the year 1750 as the date when the first edged Auriculas were raised. Three varieties—Eclipse, Rule Arbiter and Hortaine—were in cultivation in 1757. About this time the florists were rivalling each other in their efforts to produce edged Auriculas, although the striped flowers were highly valued. Gold was of more value 150 years ago than it is now, yet at that time a striped variety named the Royal Widow was sold for ten guineas. About the year 1785 a record is given of grey and white edged varieties, Privateer, Conqueror, Champion and Northern Hero among them. Some of these old varieties were in cultivation twenty to thirty years ago. Privateer was a really good grey-edged, and Popplewell's Conqueror was a white-edged variety. I cultivated both of these for many years, and also many others of the eighteenth century. At that time very high prices were obtained for choice Auriculas, and the foundation was well and truly laid for the beautiful varieties that are being produced in our gardens at the present time.

Thomas Hogg, a florist of Paddington, published a book on the Auricula in 1832, and gives the names of sixty-eight different raisers of new Auriculas and 106 varieties, edged and selfs. Many of the varieties named by Hogg were well known twenty-five years ago; such varieties as Booth's Freedom, Clegg's Bluchers, Grime's Privateer, Kenyon's Ringleader (this was doubtless the parent of George Lightbody), Page's Champion, Taylor's Glory and many others were the forerunners of the very perfect flowers we now possess; and when each recurring new variety is exhibited and admired we ought to think of those who brought the flower up to a high standard of excellence many years ago. Mr. Richard Headley is not mentioned in the sixth edition of Hogg's "Treatise on the Auricula," but he was a grower at that time.



A FLOWERING SPRAY OF THE NEW OSMANTHUS DELAVAYI.

It must be sixty to seventy years since he raised George Lightbody, still the best grey-edged Auricula. About the middle of the last century other good Auriculas were introduced—Lancashire Hero (Lancashire), Smiling Beauty (Heap) and, later, Mr. B. Simonite. The Rev. Francis D. Horner raised many beautiful varieties, but they merely carried the work a little further and handed it on to others. I did not know Mr. Read, but he was contemporary with Mr. Simonite, and he raised one very beautiful white-edged variety named Acme. Mr. Simonite left us two fine green-edged Auriculas in Shirley Hibberd and Henry Wilson. I do not know their parentage, but I have raised some good green varieties from these. Some of them have been sent out, but it is clear that whatever credit may accrue to me as the raiser of these more recent green-edged varieties, some of it belongs to Mr. Simonite. Mr. Horner has produced many fine varieties in all the classes, but they are little known outside his own garden. Quite twenty to twenty-five years ago he had raised some good white-edged varieties, for which he was doubtless indebted to Heap's Smiling Beauty. One named Magpie he gave me about twenty-five years ago. My son has raised some very fine white-edged varieties from it. The best is, I think, Loveliness, which was exhibited last year for the first time. Eucharis is an older variety, and is very similar to Magpie.

Until quite a recent date I had an idea that it was not possible to produce a seedling from an Auricula or any other allied plant exactly like its parent, or that it was possible to produce two seedlings exactly similar. I have seedling Carnations and seedling Auriculas sent to me every year in their seasons to name, and I generally reply that, being seedlings, they are distinct from the parents, and that the raiser should give them names. I had rather a rude awakening from this dream two or three years ago. I had some thought of winning a prize for Primroses (twelve to be distinct). I exhibited twelve seedlings, but to my surprise I found "disqualified" written on my card. The reason given was that they were not distinct, and certainly on examination two of the seedlings were to all appearance exactly alike. Even an expert could not see any difference between them. There are too-much-alike Auriculas as there are too-much-alike Roses, Chrysanthemums, &c. There are two Auriculas in the edged class practically alike in leaf and flower, viz., George Rudd and Rachel, although one was placed in the grey-edged and the other in the white-edged class. Evidently both had been raised from the same capsule.

I raised and exhibited some quite distinct pink self Auriculas and some of quite a soft rose colour, but some amateur unknown to me raised a rose or pink self-coloured variety of poor quality. This gave the colour, with certain mixtures of other varieties, to the much finer forms certificated by the floral committee of the Royal Horticultural Society, and thus the work of successive generations of florists is handed on from year to year and from decade to decade. The work even in my time has been practically stagnant, until some ardent florist or other has taken it up; and it goes on until "the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain, or the wheel broken at the cistern." But in the case of the Auricula there are always some to carry on the work of improvement, although the standard of excellence is now so high that it is very difficult indeed to go further. Now, however, that we have broken up new ground in the self-edged varieties there is a good chance to effect further improvements.

Three excellent varieties are shown in the coloured plate, viz., Dorothy Cutts (yellow), Prince Charming (green-edged) and the time-honoured favourite, George Lightbody. As already mentioned, George Lightbody still retains its position as the best grey-edged Auricula. Last year it was the premier flower at the National Auricula show in London. James Douglas.

[Our coloured plate was prepared from flowers kindly supplied by Mr. James Douglas.—Ed.]

THE FLOWER GARDEN.

SWEET PEA NOTES.

Staking before planting.—There is no doubt that it is excellent practice to put the stakes down one side of the line before the plants are placed in position, and one would naturally choose the quarter whence the cold winds come. The protection thus afforded is valuable, much more so, as a matter of fact, than one might suppose who had not given the thing a trial.

Planting-out.—Within a few days of the publication of these notes we shall be in the midst of this important operation, and the sooner it can be carried to a conclusion the better. I most certainly would not attempt it when either the weather or the soil was unfavourable, but it is equally certain that I would not miss the best opportunity that presented itself. The greatest care will have to be exercised in handling plants that have been grown five in a 3-inch pot, because the roots will have become closely and firmly massed. To plant them in this condition is to encourage a cessation of progress which may last for two, or even three, weeks, while to proceed so recklessly that half the roots are torn or broken is to issue a pressing invitation for disappointment to come along. Separation is essential, and it must be done so that none of the roots is injured. In planting these must have plenty of space, as well in respect of width as of depth of station. Personally, I prefer to take out an apology for a Celery trench, put in some fresh loam, with a little old manure and sharp grit mixed in, and then put down the roots firmly, surrounding and covering them with similar material. The walls of the trench must not be left firm and sharp, as is done for Celery, but should be broken down to the roots.

Distances.—It is invariably a source of worry to know what space should be allowed from plant to plant. One friend secures many fours, with a few fives, on stems 14 inches to 18 inches in length with the plants at 8 inches asunder; but that this is too close in the majority of soils cannot be disputed for one moment. Judging from my own experience, 15 inches is the ideal distance at which to plant; but in particular circumstances this may be extended to 18 inches or even 2 feet. The sum and substance of all this is to advise growers to do as they like and as their skill in cultivation directs. Each season they should keenly watch the results.

Protection from Birds.—It is, of course, in the small seedling stage that birds usually work most havoc among Sweet Peas; but they will pay attention to them when they first come from the frames if they are allowed the opportunity. I have suffered in this direction myself, and many friends have done likewise, and it is now the rule to use freely stout black thread entwined in and out of the sticks so as to form a dense network, which the visitors will not readily tackle. Whether this need be done in all districts is a point for individual knowledge; but in my own case birds are, it is my solemn belief, hungrier and more numerous than in any other village in the British Isles, and, curiously enough, they all like Sweet Peas.

Earthing-up.—In strong soils it is an advantage to draw a little earth up to the stems after planting, and it is more especially beneficial when a wet period follows the operation. If water runs directly to the stems and the close soil holds it there, injury is sure to come along sooner or later, and my experience teaches me to expect it sooner. A. B. Essex.



ANDROSACE SARMENTOSA AND ONOSMA ALBA ROSEUM IN THE ROCK GARDEN.

TWO INTERESTING HARDY PLANTS.

(Androsace sarmentosa and Onosma alba roseum.)

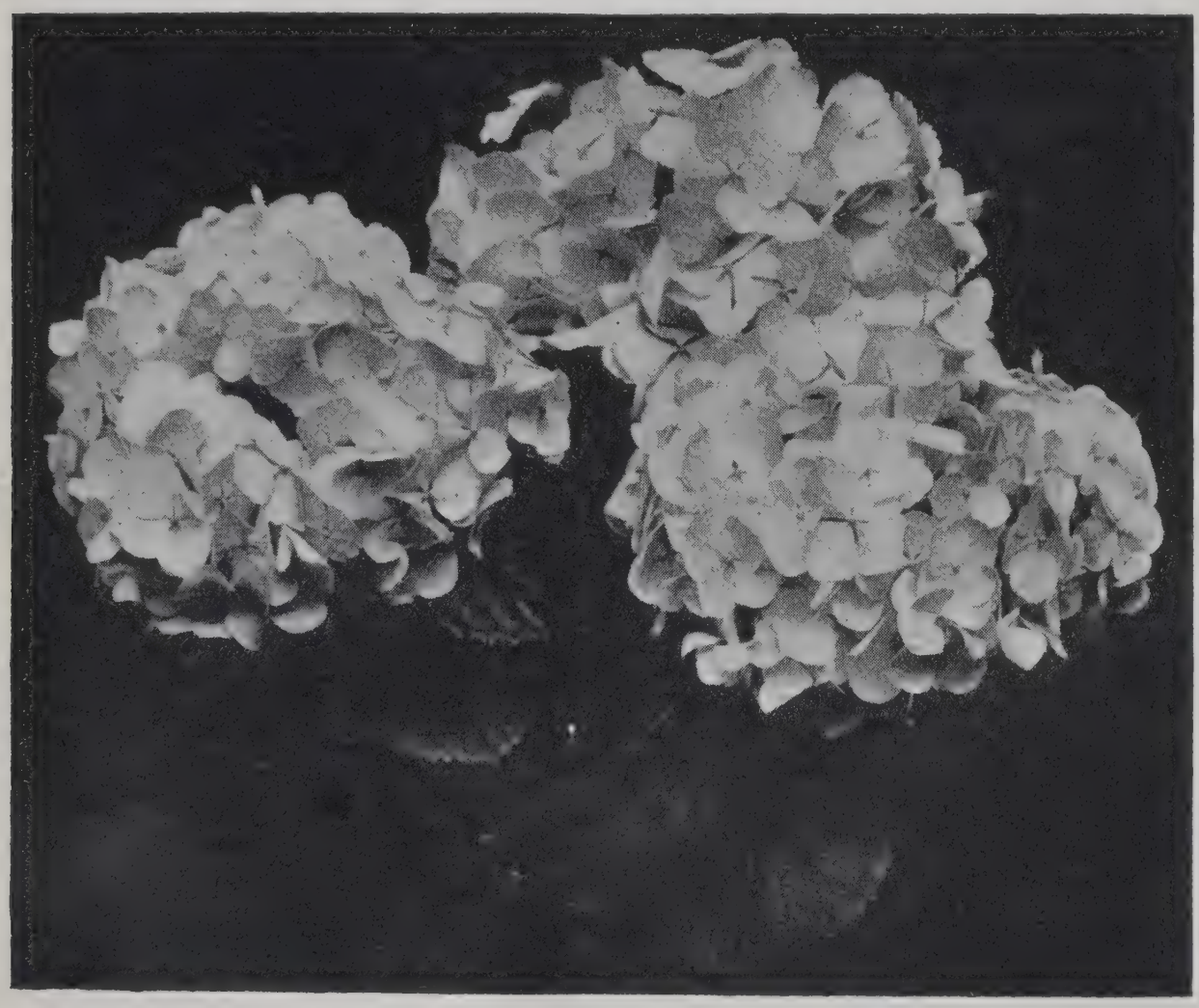
The high estimation in which Androsace sarmentosa is held among cultivators of alpine plants is due to its free and vigorous habit and the innate beauty of the flowers. In cultivation it offers no great difficulty, the chief evil to guard against being a surfeit of moisture in winter; this is owing to the woolly nature of the leaves, which readily

retain moisture and, consequently, are liable to rot. In practice it is advisable to employ some protecting agent to throw off rain and snow in winter, and this end is most readily attained by covering the plants with sheets of glass at that season. The best position to plant in is that affording plenty of sunshine and, if possible, under a projecting ledge of rockwork, as the latter not only conserves the heat, but also affords some protection from rain, while the rocks assist the free passage of water. A suitable planting compost consists of rich loam, leaf-soil and grit, to which plenty of sandstone chips are added, in order to render it cool and porous for the roots. The addition of lime in some form is also advisable, as A. sarmentosa and Onosma alba roseum (which are shown together) flourish with great vigour on limestone soil.

Androsace sarmentosa is always easy to recognise from the large size of the rosettes, which are about the size of a five-shilling piece. The leaves are pale grey-green in colour, silky to the touch, and in winter bear closer resemblance to hairs than leaves. Typical leaves are most evident in spring, and from the centre of these the flowers arise, being borne in umbellate heads on very wiry stems some 6 inches or 7 inches in length. It is the fresh, bright rose colour of the flowers that wins it so much admiration. The flowering season is during May and June, and a carefully-grown colony at that season is one of the brightest spots on the rock garden. A. sarmentosa increases by means of runners much in the same way as the garden Strawberry. At the end of the thread-like growths a tiny plant is produced, and if pegged into the soil, roots are freely formed and we have a fresh individual. These may be left undisturbed to increase the colony, or if lifted and placed in pans during autumn they can be flowered in the alpine house in spring, or, rather, late winter, as this species lends itself to this work, and the freely, but this means of propagation is always uncertain.

Chiddingfold, Surrey. THOMAS SMITH.

Onosma alba roseum, which is figured beside the Androsace, while forming an admirable companion, is less frequently met with in gardens. It is a trailing plant, with narrow grey-green leaves that are rough and hairy to the touch. The flower-stems are stiff and arch over, so that the tube-like flowers are all inverted, and at a short distance appear like white drops, except for the flush of rose colour that stains the whiteness of the tube. It is more susceptible to damp in winter than the Androsace, and should be planted in a sunny place, as on the perfect ripening of the wood the following year's display depends. I have always found it to succeed in dry walls, and if planted well up one is better able to appreciate the structure and colouring of the flowers. Onosma is easily propagated by cuttings taken during July and August and rooted in sandy soil in a cold frame. In good seasons it produces seed that germinates flowers obtained under these conditions are exceptionally well developed.



THE NEW HYDRANGEA MME. MOULLIERE.

HYDRANGEA MME. MOULLIERE.

IT is some time since a new Hydrangea was introduced, and the new-comer illustrated on this page has certainly come to stay, for it possesses the points of a good plant for the greenhouse or conservatory. As described in our last issue, the flowers are of a creamy hue, with just a suspicion of palest pink, and borne in remarkably fine heads. This variety was recently granted an award of merit by the Royal Horticultural Society when shown by Messrs. Stuart Low and Co., Bush Hill Park, Enfield. The plants shown were dwarf and covered with a perfect mass of bloom. The petals are fringed, which give the variety an additional charm. It belongs to the hortensis section, and is likely to prove a general favourite.

THE TOWN GARDEN

CULINARY PEAS.—In the cultivation of the culinary Pea in town and suburban gardens—and, indeed, in gardens of small size generally—one is afforded ample proof of the fact that "old customs die hard." In his endeavour to crowd a little of everything into the small space at his disposal, the amateur provides himself with Apple and Plum trees, Currant and Gooseberry bushes, and much besides, finally settling upon some 6-feet-high Peas to cast their unnecessary shade over other things. That these 6-feet-high Peas yield nothing but leaves and stems for more than half their height, that they require at least 7-feet-high sticks, that they need double the room of dwarfer-growing sorts, are items of importance which never appear to receive consideration, seeing that from year to year the same routine is adopted. It is remarkable, too, how unwilling the amateur is to give up his old favourites as well as his old ways in these as in other matters.

THE MODERN CULINARY PEA.—No up-to-date amateur, however, can afford to ignore what I have been pleased to call the "modern culinary Pea," which, after all, is but the embodiment of all that is good in the tall, older varieties—flavour, cropping and the like—in conjunction with that great essential, dwarfness, which renders these modern types of the greatest value to the owners of the smallest garden or allotment. In such as Laxtonian, Sutton's Early Giant, Ideal, Peerless and others we have the attribute of dwarfness wedded to the highest flavour of the Marrowfat Pea, varieties that, in their cropping value on a given space, are virtually as two to one. I do not say the yield per plant is double that of older sorts, but I do say that double the number of plants may be grown on a given space, and to the best possible advantage. Hence the modern Pea should be to the amateur a sort of *multum in parvo*, embracing "efficiency with economy" and "intensive cultivation," if you will, all in one. Then in

ALLOTMENT GARDENING one too frequently sees the common error—despite the education in gardening affairs by county councils during recent years—of arranging the rows of Peas not more than 2 feet apart and possibly six or more rows in a block. The outcome of this is that the outside rows carry the crops, and the rest give but a poor account of themselves. Precisely the same error is perpetuated by the jobbing gardener in villa gardens, since to this latter type generally the stimulating effect of light, air and warmth to plant-life does not readily appeal. To arrange his rows of Peas at 6 feet, 10 feet or even 12 feet apart, and to crop with Carrots, Onions, salads or Beetroot the intervening spaces, have not yet occurred to him, though I trust such a course may, and that quickly.

TUFTED PANSIES.—I have a set object in view in referring to these plants now, since by planting at this season a late summer crop of flowers is assured. I have in mind also that the Roses are now pruned, and that these Pansies make delightful carpets of colour on the surface of the Rose-beds after the Roses have given of their best flowers. Hence I would recommend the free planting of some of the more profuse-flowering of these plants. Bullion, Florizel and Ardwell Gem are some that give of their abundance.

THE VALUE OF YOUNG PLANTS.—Those of my readers who would like to carry out this suggestion should indulge in well-rooted young plants without delay. To plant old or divided examples would be worse than useless. The young plant endowed with freshness and vigour has to make its mark in the world, and if well catered for at the start will not disappoint. My advice, then, is to plant vigorous and freshly-rooted cuttings. S. N. N.

GARDENING FOR BEGINNERS.

PROPAGATING SELAGINELLAS.

THE Selaginellas are moss-like plants allied to Ferns. Some are erect and quite Fern-like in their character; others are of a creeping habit. There are a few species that evolve a tuft, rosette-like in form, and to this series belongs Selaginella lepidophylla, the well-known Resurrection Plant. The dwarf forms of the Selaginella develop a dense, carpet-like growth, and in the estimation of many are most desirable plants to cultivate. Preference, however, is usually given to the trailing kinds, because of their usefulness in a cut state in so many forms of indoor decorations, apart altogether from their value as plants for greenhouse and conservatory embellishment. The plants revel in moist, shady conditions, and may be regarded as shade-loving plants.



1.—DETACHED PORTIONS SHOWING ROOTS. THE THREE SMALL PIECES ARE SUITABLE FOR PROPAGATION.

The Selaginellas are of easy culture, quite a useful number of the better kinds being commonly found in greenhouses in this country. Most of them will grow satisfactorily in a temperature of from 40° to 50° between September and March, and from March to September from 55° to 65°. These figures should apply to all greenhouse species. The stove species require a temperature some 15° warmer to grow them quite satisfactorily. Generally speaking, for all practical purposes the creeping and erect species should be grown in pans some 3 inches to 4 inches deep. They may also be grown in 3-inch to 4½-inch pots quite successfully, and are often most useful when represented in this manner. The trailing kinds should be grown either in pots or in suspended baskets, otherwise their real beauty cannot be appreciated.

Those who have grown these plants most successfully prefer to use soil composed of the following ingredients for the majority of them: Equal parts of good fibrous peat, leaf-mould and loam, with a good sprinkling of coarse silver sand. The less free-growing kinds should have an equal part of chopped sphagnum moss added to the compost, as this is distinctly beneficial to plants of this character.

The propagation of all the species is very easily accomplished. They may be increased by division of the old plants at almost any period, but the more popular practice is that of propagating by cuttings. The cuttings should be about 3 inches long, and be inserted in a compost of the description mentioned. To illustrate the character of the growths from which cuttings may be obtained, there are depicted in Fig. 1 a series of shoots detached from an old plant. The growths have been cut from a plant of S. Martensii, and the largest piece gives a good indication of its character. The second largest growth at the top right-hand corner of the picture is shown with the under side of the growths revealed, in order to portray the numerous roots, which render propagation a very easy matter. The three smaller cuttings serve to illustrate the kind of pieces of growth that may be used to perpetuate the stocks. In two cases a root is shown on the cuttings, and in the third instance is seen a cutting without roots properly prepared and ready for insertion.

Some growers insert cuttings of the erect kinds singly in small pots, and as soon as rooted these are transferred to pans, placing as many young plants in each pan as it will accommodate. A quick way to make pretty plants of the erect kinds, such as the one figured herein, is to insert eight to ten cuttings in a 5-inch pot, and after they have become rooted to grow them on as a whole subsequently. Such a potful of cuttings is shown in Fig. 2, and also the result of this treatment is depicted in a potful of young plants growing away freely. In the same illustration there is shown a number of cuttings inserted in a pan of convenient size. It is the common practice to dibble the cuttings in half an inch or so apart over the surface, utilising 5-inch pots for the purpose. The surface soil is usually covered with silver sand previous to dibbling in the cuttings. Water in very carefully by the aid of a fine-rosed can, and transfer to a propagator forth with. Plunge the pots or pans in Cocoanut fibre, and maintain a comfortable bottom-heat and a humid condition of the atmosphere until the cuttings are rooted, subsequent to which gradually harden off and place in the greenhouse or conservatory. Most Selaginellas, as already mentioned, thrive best in a moist, humid condition of the atmosphere, although there are some kinds that do remarkably well under conditions that are comparatively dry. Although the plants revel in a semi-shaded position, some kinds seem to resent heavy shading. D. B. CRANE.



2. CUTTINGS INSERTED IN A PAN AND POTS.

HOW TO TREAT FORCED INDIAN AZALEAS.

INDIAN AZALEAS are easily ruined, after the plants have been subjected to a high temperature in order to force the flowers open a few weeks earlier than they would develop under cool greenhouse treatment, if at all neglected. It is a mistake, for instance, to place the forced plants in a cool frame or near a wall or fence in the open air directly the flowers have faded. While the flowers are opening young shoots are growing also, and after the blossoming stage these young shoots continue to grow. Indeed, it is on them that the flowers are borne the following year, and so the cultivator must take great care of such precious shoots. Now, I know that some persons are afraid to prune or cut back the shoots of Indian Azaleas. It is not necessary to do so except when flowers with stems attached are required and when the cultivator has to deal with plants of bad shape. In such circumstances the cultivator should not hesitate to prune the plants, so as to head back any long, straggling branches; but the pruning must be done in spring, so as to allow time for new shoots to grow and mature before the following autumn.

If the flowering specimens have been kept in a comparatively cool greenhouse or conservatory, they must be removed to a warm structure where they can be syringed and new shoots encouraged to grow. If any plants require repotting, this is the right time to do the work, using a compost of fibrous loam, peat and sand, or loam and leaf-soil

with sand. Very firm potting and careful watering are essential. Early in June the plants must be placed on a hard base on the north side of a wall or fence, and if well cared for they will have formed many flower-buds by the end of September. SHAMROCK.

DAFFODIL NOTES.

DAFFODILS AND TULIPS AT VINCENT SQUARE.

(*Continued from page 171.*)

LISSADELL DAFFODILS.

MARCH 28 was noteworthy, as it was the first time this season that we had an exhibit from Ireland. A large and important group came from Lissadell (Sir Josslyn Gore-Booth's Daffodil farm near Sligo). Included in the collection were the following choice varieties:

Mrs. Robert Sydenham, a very refined white Magni, with a 3¾-inch perianth and a trumpet 1¾ inches long, rather long and slim-looking, but widening out at the top to about 1¼ inches. I thought the flowers were especially good, and as there were no fewer than three large bunches of them, I am hopeful that before long dealers will feel themselves able to sell at a lower figure. It is a variety to be watched, and advantage should be taken of any big drop to secure it.

There were some half-dozen or more flowers of the gigantic yellow Sir Horace Plunkett. It is an impressive bloom on account of its bold, massive trumpet with its widely-expanded brim, a full 2 inches across, while it is only 1⅞ inches long. The perianth (5 inches) has broad and overlapping segments, and is of a paler tone of yellow. I well remember seeing it growing at Lissadell two years ago, when it seemed to overtop all else; and I often think of what Sir Josslyn's feelings must have been when, on taking Sir Horace round and telling him that the Daffodil was going to be named after him, his visitor begged for a bulb or two for himself! (Twenty pounds was the catalogue price then.) My readers will agree that it was an awkward situation.

Judge Bird, the famous Lissadell bicolor, was not up to its usual form, and on enquiring how it was, Mr. Sangster, the courteous and able manager, poured out a tale of woe. Those cold winds and that too-long-drawn-out spell of dry weather were, between them, accountable for it all. Even Incognita suffered. Its lovely colour was "not there." I consider Judge Bird a very good flower, and when fully developed with a 5-inch perianth, which is the normal size of a well-grown bloom, instead of only a 4¼-inch one, as was the case at Vincent Square, it is one of the largest bicolors. Here, again, we have a great big trumpet with a wide brim. The segments of the perianth are decidedly pointed. It has a grand constitution and is a robust grower. My experience with a bulb or two leads me to suppose that it is a fast increaser. I hope I am right, because at present I think it is a little dear, and a fall in price would be welcome.

Excellent examples of William Baylor Hartland and Whitewell were also to be seen. The former, with all respect to its raiser, "W. B. H." himself, has never been shown in such good form at Vincent Square before. It is a soft-toned bicolor, very early, just a little short in the stem, but, all the same, a fine thing. Whitewell is a grand shallow yellow-cupped incomparabilis, and is a flower that always stands out well. I know many hybridisers have bought it for seeding purposes.

There were a large number of home-made seedlings — one, a deep yellow Ajax, with *immense* substance in its perianth, so much so that it was almost a disfigurement, and a strange-looking frilled trumpet; another, a starfish-looking all-yellow incomparabilis, with tentacles which, when spread fully out, measured 5¾ inches from tip to tip. Only once previously have so many been shown, but it will not be long before this record is left behind, and then the Lissadell seedlings will take a prominent place at all our shows.

MESSRS. R. H. BATH'S TULIPS.

I liked Messrs. R. H. Bath's Tulips very much. They were all "a-growing" in fancy bowls without drainage. With the exception of about two lots of Darwins, they were early-flowering varieties. It was a comfort to find them still under their old names. I must say I rubbed my eyes and got out my glasses when, at a previous meeting, I found "Orange Blossom" to be only our old friend Brunhilde, and "Apple Blossom" only Flamingo. I was afraid the well-known firm responsible for this renaming were going to start a new fashion which would be even more mixing than harem skirts!—hence the relief to find a firm like Messrs. Bath sticking to the old well-known names. The exhibit was a good example of how well this culture suits Tulips. The foliage was beautifully fresh, and the flowers were well developed and of good size. A good selection that anyone might grow with the utmost confidence would include Vermilion Brilliant (scarlet), Brunhilde (white, flamed orange), Princess Helen (lovely pure white), van Goozen (white, edged pink, with a delicious bloom on its foliage), Couleur Cardinal (rich deep blood red), Spaendonck (cream ground and edge, with crushed strawberry stripes and markings), Prince of Austria (tall, dull orange red), Rose Gris-de-lin (pretty rose pink and white), President Lincoln (deep mauve) and Rose Luisante (magnificent deep rich rose red).

At one end of the Tulips there was a little mass of Mme. de Graaff, Lucifer and Eyebright (Daffodils). The blooms of the former were very fine indeed. It is a good kind to grow in pots. Everyone should try to afford themselves two or three potfuls, now that it can be bought for about 3s. 6d. a dozen. JOSEPH JACOB.

THE CULTIVATION OF AQUILEGIAS.

To have these plants in perfection it is best to sow annually, and now is the best season to do so, either in pans or boxes. Keep the seedlings in a frame till ready to prick out, or in a well-prepared piece of ground in a sheltered corner outside. The Aquilegia blooms at a season when there is little else in flower, coming after the Daffodils and spring flowers and before the Sweet Peas. It unquestionably fills a very large blank, for no plant possesses greater diversity of form or colour, ranging as it does through all shades of pinks, yellows, lilac, mauve, salmon and white. The very best strain of seed only ought to be sown, as the good and bad take equal time to grow, and the pleasure which the one gives is unlimited, while the results from the other are most disappointing.

After the seedlings are ready to plant out, it is best to place them in their permanent quarters, as they are not plants that stand either shifting or dividing, and once planted are best left alone. They will grow in any kind of soil, but it is best to prepare the ground some time before planting, digging it well and mixing in some leaf-mould or old manure; they respond liberally in size of flower, quantity of bloom and strength of habit to good treatment.

A plant to give pleasure to all must be one that everyone can grow, one that requires no coddling, and that will thrive and flourish as readily in the cottage garden as in the finest garden in the land. That is what the Aquilegia does. No plant exceeds it in beauty of form, elegance of growth, greater range of colours, wealth of bloom, or length of time it continues to flower.

Some gardeners prefer to grow each colour by itself. This, I think, is a mistake, as no colours are so difficult to contrast as, and look more inharmonious than, different shades of the same colour. What can be a more lovely blending of different colours than the rainbow? And so it is with Aquilegias. Mixed colours are much more beautiful, as each acts as a set-off to the others.

Amateurs had much better buy seed raised by a specialist than sow their own, as it is only by judicious crossing these lovely hybrids are raised, and it often takes many years to achieve some special colour. The best strains consist only of distinct colours in different shades which do not jar with each other, so making the garden a thing of joy and a delight to the eyes. To those who have never grown Aquilegias or, to call them by their old-fashioned name, Columbines, sung of by Shakespeare and now beautified beyond recognition in these lovely new hybrids of to-day, which are more like Orchids than hardy garden plants, and are within the reach of all lovers of flowers, I say, Sow now, and the pleasure you will have will be great.

Teviot Lodge, Hawick. INA SCOTT-ELLIOT.

[We publish the above with great pleasure. Mrs. Scott-Elliot has devoted many years to the improvement and cultivation of Aquilegias, and the hints given by her will, we hope, induce others to grow these flowers.—ED.]

THE FRUIT GARDEN.

PEACHES AND NECTARINES.

FRUIT-GROWERS who take a keen interest in the cultivation of Peaches on open walls seldom fail to obtain good crops of large, highly-coloured and full-flavoured fruit. By a careful selection of varieties an excellent supply may be had for several weeks in succession. The earliest variety to ripen here is Waterloo, and in the majority of seasons the fruits attain a very passable size. If gathered a few days before they are ripe and taken to the fruit-room to finish, the flavour, although not equal to that of Royal George, is very good. Hale's Early and Early York are the next to ripen, followed by Stirling Castle, Grosse Mignonne, Dymond, Violette Hâtive, Crimson Galande, Bellegarde, Barrington and other good midseason varieties, with Walburton Admirable, Sea Eagle and Princess of Wales to follow on. The latter, an excellent late variety, should be grown only in the most favourable parts and given a good position; otherwise it is too late to ripen satisfactorily. I have seen and grown this variety in a late house, and the fruits have been very fine indeed, both for size and flavour. The great secret in the cultivation of these fruits is to have the wood well ripened, and unless proper means be taken to attain that end, all other labours are vain.

Last year was a very bad and trying season for Peach trees, and I greatly fear that, no matter how carefully and well tended they were during the growing season, the wood will not be found what it should be had the season been more favourable. As at the present time the shoots are well studded with buds rather forward, the flowers may prove too weak to set the fruit. A good soil with a sound dry subsoil amply drained is of great importance, also plenty of room for the extension of the branches. I often think, for the sake of

variety, we are apt to plant the trees too closely. Our best trees, which are trained on a south wall, are 20 feet apart, and the whole of the space from the bottom to the top is completely covered with medium-sized shoots, just the kind of wood for the production of good fruit. In parts not so favourable as one would prefer, and where the surroundings are rather low, I would strongly advise raising the border several inches above the ordinary level, with a depth of soil not more than 2 feet, and no room and attention would be devoted to late varieties. As regards Nectarines, Lord Napier is an excellent variety to grow, although probably a little tender in the skin, and liable to disfigurement in unfavourable weather. Pine-apple and Humboldt give us every satisfaction, the fruit and flesh being excellent in every respect.

At the present time, young, newly-planted trees should have the soil over the roots well firmed; the shoots may then be trained at equal distances apart, keeping the lower shoots well down and regulating the rest according to the number. If a young tree has seven shoots, cut out the centre one and train three on either side; in fact, every attention should be given young trees to obtain a good foundation of suitable growths not too strong. If at any time the young growths of the Peach incline to grossness, lift the roots and relay them at the proper time. I am no advocate for strong wood, as the shoots (so far as my observation goes) produced therefrom require far more sun to ripen them than is the case with shorter and harder growths. When once a tree has been properly formed and the wood is of medium texture, little further trouble will be given with regard to coarseness, but the trees should go on fruiting satisfactorily for many years. The next move with the Peach in bearing will be the protection of the flowers, disbudding the shoots and thinning the crop should there be a good set of fruit. Keep the foliage clean and free from insect pests, and feed the roots at intervals if necessary. The roots of large trees growing on walls are apt to become too dry, and suffer in consequence if not immediately attended to.

Wrotham Park, Barnet. H. MARKHAM.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Planting out Sweet Peas (*Burton*).—Yes; you can plant out the Sweet Peas as soon as they are large enough, provided that the soil has been previously prepared and the weather is favourable. You will probably find things best about April 20. Tea leaves have no value as providers of plant food.

Plants for small gardens (*M. C. W.*).—The hardy plants flowering from October to March suitable for a small garden are either largely of a bulbous-rooted character or of small size or stature, the Christmas and Lenten Roses being among the bolder of the flowering plants. During autumn and winter such Crocuses as speciosus, zonatus, Imperatii, Sieberi, pulchellus, biflorus and asturicus would be in flower among many kinds, while such things as Christmas Roses, more particularly maximus, major, angustifolius and Apple Blossom, would give quite a succession of these flowers alone. Iris unguiculata, I. reticulata, I. Histrio, I. sindjarensis, I. bucharica, I. orchioides, I. Heldreichii and I. Tauri are all beautiful. To these might be added Lenten Roses in variety, Hepaticas in red, white and blue, Chionodoxas of sorts, Adonis amurensis, Winter Aconite, Snowdrops, Snowflakes, Cyclamen Coum and C. ibericum, Saxifraga apiculata, S. oppositifolia in variety, Daphne Mezereum, D. M. alba, Sisyrinchium grandiflorum, Anemone blanda, A. Scythinica, Muscari azureum, Oxalis lobata and Narcissus pallidus præcox. Being chiefly of small size, these would require to be planted with a free hand to be at all effective.

Six late-flowering Phloxes (*M. C. Learoyd*).—John Forbes (pink), Lady Miller (orange scarlet), Illustration (reddish salmon), Tapis Blanc (white), Le Mahdi (violet blue) and Mr. W. P. Wright (carmine rose). These Phloxes should be planted as early as possible.

Injury to Narcissus bulbs (*Catkins*). — The bulbs have been slightly attacked by the bulb-mite and no doubt this is the cause of the whole trouble. There is nothing to show whether the bulbs were attacked when they were planted or if the attack has come subsequently. Care should be taken to destroy by fire all the soil and affected bulbs, lest other parts of the garden become infested.

Christmas Roses (*F. E. A.*).—The best time to plant the Christmas Rose is September, and there is no season of the year to equal it. The best position is fairly open, but protected from north and east, and preferably with distant tree shade on the south side. Plants may be obtained from any of the hardy plant nurseries, the best varieties being maximus, major and angustifolius. All are varieties of Helleborus niger. The plant must have a deep, rich, well-cultivated soil.

Alstrœmerias (*H. P. B.*).—No plant can long survive if the young growths are continually removed, and if the Alstrœmerias have become troublesome, the only way of eradicating them is to cut them down as they appear. Unfortunately, they go deeply, often 3 feet or more, in the ground, which renders the work of clearing them a far more difficult one. At the same time, the giant mass of tuberous roots creep to the edge where most light appears, so that by opening a deep trench on the outer side of the bed it would be possible to get rid of the bulk at once.

Violas (*Miss E. S.*).—If, as we imagine, you cut your Violas to the ground-level and then put 1 inch of soil over them, and no growth is now apparent in your favoured locality, we fear the plants are dead. Violas should not be cut down to the ground-level nor be divested of all their leaves; much less should they be covered over. The Violas are evergreen perennials, and so covered over would be choked and killed. The right way to treat such things would be to prune them back to nearly the ground-level and surround them with soil, shaking in a little among the leaves and stems so that these are still visible.

A book on the culture of bulbs (*Tulip, Scotland*). — Probably the best book for your purpose is "Bulbs and Bulb Culture," by D. T. Fish, published in 1885 or thereabouts by L. Upcott Gill, London. We believe it has long been out of print, and can only be met with now in catalogues of second-hand books. The work was originally published in two thick volumes, but the last and fullest edition consists of only one fairly thick volume. It is a scarce work, and might cost anything from 10s. to £1, or possibly even more. "Get it if you can" is our advice. A much smaller work is "Bulbs and Bulbous-rooted Plants," by C. L. Allen (price, we think, 5s.), published by the Orange Judd Company, New York. "Le Plantes Bulbensis" (4fr. 50c.), by R. de Noter, is published by the Librairie Horticole, Paris. We do not know the book ourselves, and only mention it because a French work is mentioned in your letter. A very useful work, and one that can be easily obtained, is "Pictorial Practical Bulb Growing," by W. P. and H. J. Wright, London, 1903.

Asters dying off (*J. H.*). — The cause of your Asters dying off in the way detailed by you is a fungoid disease, which has of late years caused a great deal of trouble. It is known by the different names of black leg, stem rot, and the Aster disease. This disease is often set up by overcrowding or by keeping the young plants too close during their early stages. Once it gets hold it is practically impossible to stop it, and, what is more, the spores lie dormant in the soil during the winter, and in spring are ready to continue their course of mischief. From this it is evident that after an attack of this disease quite new ground should be chosen for the Asters the following season. Failing this, it has been recommended to burn every plant as soon as it shows any signs of the disease, a very necessary precaution. After the bed is cleared a good dressing of quicklime should be dug in. Sprinkle the surface of the soil with sulphate of iron powder in spring, using about half an ounce to the square yard. This has in some cases proved to be effectual, but new ground is preferable.

FRUIT GARDEN.

Pear and Apple growing for profit (*A. C. W.*).—It is essential that you have a good depth of sound, well-drained loamy soil to deal with, not too heavy nor too light, and at least of a depth of from 18 inches to 24 inches. The position should not be too low, as the trees would be more subject to frost in spring; neither should it be so high as to expose the trees to gales and rough weather, and if protected from north, north-east and east winds by trees or some other object it would be a real advantage. We advise you—at first, at any rate—to leave Pears alone. They are not so reliable, neither is the demand for them so steady and continuous as for Apples. Planted under good conditions the trees would, no doubt, bear a few Apples the first year after planting; but it would be unwise to let the young trees carry many fruits the first year, as this would be sure to cripple their growth. The crop would increase each year, of course, but you could not rely on getting what may be termed a paying crop in less than four or five years after planting. The trees should continue to increase in value for at least twenty-five or thirty years. The ground between the trees could be made to return a profit by growing vegetables or low-growing fruits, such as Gooseberries, Raspberries and Strawberries, taking care not to crop too near the trees. After about six years' time, when the trees would be in good bearing, the growth of other things would have to be discontinued. To give some idea of what a young Apple orchard is capable of producing (occasionally, at any rate), we may say that a thirteen-acre orchard (chiefly of Apple Lord Derby) fourteen years old produced over £70 worth of Apples per acre last year. Once such an orchard were established, the cost in management would not be great—chiefly in the labour of hoeing to keep the ground clean. Suitable land could, no doubt, be purchased in any of the Home Counties, perhaps Kent or Sussex for preference, and the greater the distance from London the cheaper.

Winter wash for spraying fruit trees (*S. C. R.*).—The following is the Woburn Winter Wash, and is now acknowledged to be an improvement on the common caustic alkali wash: Soft soap, ½lb.; paraffin, 5 pints; caustic soda, 2lb.; water, 10 gallons. Dissolve the soap in warm water, churn the paraffin into it, and then shake in the caustic soda. It is a burning wash, and the hands and clothes should be protected while it is being applied.

Apple Beauty of Bath (*S. B. C.*).—This is one of the best and handsomest early dessert Apples we have. It received a first-class certificate from the Royal Horticultural Society upwards of twenty years ago. The ground colour of the skin is a pale yellow, with bright and vivid crimson cheek and white spots. The flavour is refreshingly brisk and inclined to be acid. It is ripe from the middle to the end of July. The growth is compact, the branches being full of spurs. It forms a neat orchard tree and is amenable to any form of training. Its colour is so bright and attractive that it always commands a ready sale at top prices. It is of medium size and broader than it is deep. The stalk is short, and is set in a deep basin; the eye open and rather deeply set. We do not know of an Apple under the name of Beauty of Barnet, but there is an excellent later dessert Apple named Barnack Beauty.

Proposed treatment of a Vine (*Amateur*).—You must not cut back your Vine at present, or it will probably bleed and thus be injured; but as soon as you find that the buds are swelling freely, rub them off by degrees, one or two buds every other day, beginning at the top of the cane, eventually leaving three of the strongest buds at the base of the cane about 1 foot higher than the surface of the border. Two of these buds as they grow will form the two new canes you hope to grow during the coming summer. The reason for allowing three buds to start is in case of injury to one until they are quite safe. The weakest of the three shoots must then be rubbed off. When the two new shoots have developed a growth of about 7 inches or 8 inches in length, the old cane should be cut away close to the top young shoot. This should be done with very great care, as the least jarring or rough shaking of the Vine at the time may result in the top young branch being broken off.

Starting Vines and Peach trees under glass (*S. C. S.*).—We take it for granted that your borders are well drained. Give them a good soaking of water at once, manure-water from the cow or stable yard for preference (this should be diluted by adding two gallons of clear water to every gallon of the manure-water). Add as much water as will bring the temperature of the liquid to 60°. Your chief concern in starting both your Vines and Peach trees (especially as they have not been started before) should be not to suddenly excite them into growth, but to bring them on as gradually as possible, as Nature does herself. The first week ventilate freely through the back or top ventilators only during the day up to 1 p.m.; then considerably reduce the quantity of air, and, finally, close the house at 4 p.m., having previously syringed the Vines and Peach trees, and the walls, borders and pipes in the houses. On a fine, sunny day this will result in creating a moist, genial and growing air in the houses. On dull, cold days it is better not to syringe. In the evening between six and seven o'clock open the ventilators slightly, leaving a small chink of air on all night, so that the Vines and Peach trees may be at rest. This process of cautious encouragement to growth may continue in the same way for about three weeks. By that time the buds of the trees will be seen slightly on the move. Should you have any bees in your garden, you should place a hive in the Peach-house while the trees are in bloom. The bees are a great help in setting a good crop. In the absence of these, tap the wires at midday to disperse the pollen. After the crop is set the Peach trees may be treated very much like the Vines; that is to say, the borders, walls and pipes in the house should be syringed in the morning in order to create a moist atmosphere, and the same again in the afternoon, closing the house with a good moist heat about 3.30 p.m., when the temperature for a short time with sun-heat may rise as high as 80° or 85°.

KITCHEN GARDEN.

The Chinese Yam (*J. W.*).—The Yam (Dioscorea Batatas) is about as hardy as the Potato, and may be cultivated in the same way, but should be planted further apart, as the stems and foliage when grown in rich soil attain a height of from 5 feet to 8 feet. The culture in this country has been attempted on several occasions for many years past by those interested in the growth of vegetables, but always, as far as we know, has been dropped after the first trial. For one thing, the tubers penetrate deeply into the soil, making the labour of lifting them expensive. Moreover, the taste and quality of the Yam are insipid and watery, and not to be compared with a good mealy Potato. Try it by all means. The trial will interest you, and so it will us if you let us know the results. Trench the ground deeply, manure liberally, and plant 3 feet apart in a sunny position.

To lay out a kitchen garden a quarter of an acre in extent (*J. C. W.*).—In the first place, you should enclose a portion of ground in the north-east corner of, say, 10 yards by 6 yards, to form a manure yard, &c., by planting a Privet hedge round it, leaving a space open for access to it on the most inconspicuous side and fixing a door to close it in if thought desirable. In that part where there is no wall or other boundary to the land, a hedge of Privet and Thorn, mixed in equal parts, should be planted. These make a strong hedge, and can be taken up to any height desired, say, 9 feet. The walks should be 4 feet wide. For a piece of land only 30 yards wide, it will be sufficient, we think, to have one walk only, and that to go all round the garden and distant from its side boundaries of 12 feet. This will leave all the centre-piece of ground available for cropping, and the narrow 12-feet border between the walk and boundary will be found invaluable for early crops and crops of less bulk than those grown in the centre of the garden. From a utilitarian and economical point of view we think that tile-edging is the best. It harbours no insect pests and entails no labour to look after once it is laid. If a living edging is preferred, Box is, no doubt, the best. The pink variety of Thrift also makes an excellent edging. It is evergreen, of compact habit of growth, and very pretty while in flower. There will be no very hard wear on such walks, and 6 inches of some hard material, such as rough stones or coal-ash clinkers, will be a sufficient depth for them, with 1½ inches of finer gravel for the top.

MISCELLANEOUS.

Powdered alum as a preventive against slugs (*H. J. S.*).—Notes appeared in THE GARDEN for May 29, June 12 and June 26, 1909, in reference to the use of alum for destroying slugs. The first article called attention to the value of alum in this respect; the next enquired as to the method of using it; and on June 26 the writer of the first article explained his mode of procedure. This we reproduce: "I get the powdered alum from the chemist, and if (as is sometimes the case) there are some hard lumps, I pound it and put it in a flour dredger and sprinkle it round (not over if I can help it) the seedlings, and no slug will pass the ring of alum. For small borders I sprinkle it all over the border before planting anything, and it kills all the slugs. I may add that the alum does not hurt the leaves of the plants, but it dries into white patches, so I avoid putting it on the leaves as far as possible." We have not had an opportunity of testing alum in this way, but applied in moderation it will certainly not harm the plants in any respect.

Charcoal from conifers (*F. S.*).—You do not say for what purpose the charcoal is to be used. The resinous character of Pine wood interferes, to some extent, with its value for charcoal-making, but if required for horticultural purposes it would probably be suitable.

Name of plant.—*W. Hinde.*—Cydonia japonica.

SOCIETIES.

CORNWALL DAFFODIL AND SPRING FLOWER SHOW.

HEREWITH we reproduce a photograph of the Hon. John Boscawen, who since the inception fifteen years ago of the above society, has been hon. secretary, and whose work in this capacity year by year bears



THE HONOURABLE JOHN BOSCAWEN.

abundant fruit in the peculiarly interesting show which every spring draws from not only the "delectable Duchy," but from distances much further afield, an interested and appreciative gathering. Horticulturally, Mr. Boscawen is best known as being one of the members of the Council of the Royal Horticultural Society; but it appears to be more than probable that the future will confer on him a greater title to fame, inasmuch as the rapidly-increasing importance of the gardening section of the "Royal" owes its growth and strength to the genius and geniality of the "Honourable John." A gardener who knows Devonshire and Cornwall well told me that nothing had moved in the gardens since early March, and he bemoaned the lateness and the unkindliness of the season. Certainly one looked in vain for such things as Viburnum Carlesii and Drimys Winteri, which are usually to be seen at Truro, and, if the truth must be told, both the Daffodil and the other sections bore unmistakable indications of the stress of the past three weeks.

The Cornish show, from a Daffodil point of view, owes much of its importance to the magnificent exhibits of "J. C." and "P. D." Their flowers attract a "gate," just like "W. G." used to do, but with this important difference to the visiting public—that they are certain to score and to give such a display of form that no one ever goes home, aye, even to Cossington and Dinton and Sheffield and Birmingham, without feeling he has had his money's worth. The other great half is no less famous. Flowering shrubs and Rhododendrons are always a huge attraction. And no wonder. To the Northerner they are a revelation, and as he sees them for the first time he is disposed to think that the Great Western advertisements of the Cornish Riviera are not all "moonshine," but that if Boronia megastigma, Embothrium coccineum, Anopteris glandulosus and Erica melanthera can grow and flourish there, there must be a considerable amount of "sunshine."

The exhibition of 1911 was the fifteenth that the society has held, and from what has been already said readers will be prepared for the verdict which was passed upon it—"Very excellent; only prevented by the weather from being quite up to the standard of previous years." Coming now to details, I will take the schedule in order, and comment on its classes in the order of their arrangement. Daffodils first. These occupy twenty-three classes out of the fifty-eight. They cater for seedlings and varieties not in commerce, for ordinary kinds in commerce, for novices and for children.

Class 1, for thirty varieties in commerce, produced a strong competition. Mr. E. H. Williams was placed first, and included in his collection were Diana (a giant Leedsii, with a look of Minnie Hume), Pilgrim, Cœur de Lion, Noble (a large incomparabilis with a 4½-inch perianth), Homespun, and Redbreast (a flat-eyed bloom, with a "body-coloured" red eye). Miss Clarice Vivian was second and the Rev. A. T. Boscawen third.

Class 2, for thirty varieties either in or not in commerce, was the cynosure of Daffodil eyes. Here Mr. J. C. Williams met his cousin, Mr. P. D. Williams, in mortal combat for the fifteenth time. As a rule, there is not much between them, and whichever is the victor has had a hard struggle for his laurels. On this occasion the elder cousin won. Unfortunately, for descriptive purposes, all except two of his flowers were under numbers only, and so the description does not locate a variety, for in time they give place to names, and the numbers no longer count. Fawn is the fringed-cup giant Leedsii that I noted at the last Royal Horticultural Society's show. It is a nice flower, and I am told, on the very best authority, that it is a splendid garden plant. A big, flat, red-eyed flower, with an ivory white perianth (3½ inches) and eye (1¼ inches across), was a fine example of this type, and was considered by some good judges to be the pick of the collection. Another great beauty was T.B.T.G.G., a much-glorified Castile, but with a wider-expanded cup of an intense orange red. Then there were a Crown Prince major and three fine bits of rich yellow colouring in two cyclamineus hybrids and a big Ajax (272) on the top row, with a 4½-inch perianth and a wide, massive trumpet 2 inches across the mouth and 1¾ inches long. Yellow was also conspicuous in two vases of new giant incomparabilis; of these, 263, with a wonderfully flat perianth (3½ inches) and a cup of a rather deeper shade of soft yellow, was very shapely and refined. No. 260 must be mentioned, if only for the soft shading of its cup, whose canary centre passed to an edge of pale orange. It had exceedingly wide perianth segments. Mr. P. D. Williams's second-prize lot had, among others, Robespierre, a large incomparabilis with a pale primrose perianth 4⅜ inches from tip to tip, and a 1-inch wide, rather deep cup, of a very deep shade of orange red all through it. It was a most striking flower. Medusa is the largest Poetaz that I have seen, and is the same that I referred to as being on Mr. Wilson's stand under number at the March 28 meeting. Elizabeth I consider a very good florist's flower indeed. In its general look it reminds me of a Nelsonii. It is slightly drooping in its pose. It has a soft lemon yellow cup (1 inch deep and 1¼ inches wide), with a very even and refined pale primrose perianth (3¾ inches across), while the colour harmony of the whole bloom is exquisite. Whiting is a good early white Magni; it has one of those short, massive-looking trumpets which appeal so much to the popular taste. Bernardino, one of the loveliest of all Daffodils, and Phantasy, with its shapely, narrow trumpet and rather hooded white perianth, together with Primrose Dame, a primrose-coloured triandrus hybrid, were noticeable.

In the other classes besides those already mentioned, Lady Margaret Boscawen, Miss Clarice Vivian, Miss Mabel Williams, Colonel Nowell Usticke, Mrs. H. G. Hawker, Mr. A. Blenkinsop, the Rev. A. T. Boscawen, Miss Lavender Williams, Miss M. Williams (Scorrier) and Mr. C. Bewes were prominent exhibitors. I must mention Lady Margaret Boscawen's fine lot in the class for six trumpets. Her Victorias were immense and her King Alfreds huge. I measured several of the latter; they were from 4¼ inches to 4¼ inches across the perianth, and stood in striking contrast with several lots near. *The* flower in the show was undoubtedly one in Class 20 for three English-raised Parvis. It was a rich lemon-coloured self with a perianth (3⅛ inches) and a cup (three-quarters of an inch) which looked identically the same, both in texture, substance and shade. The segments had an absolutely smooth surface and were broad and overlapping, with the three interior saucily turned up at the edges, thereby taking away any possible suspicion of stiffness. It was a flower to be seen and remembered.

I pass now to the flowering shrub and other classes. Here there was some keen competition. In Class 56, for a collection not to exceed twenty varieties, Mr. T. B. Bolitho was placed first. He had Embothrium coccineum, Boronia heterophylla, B. megastigma, Lapageria rosea and Clianthus puniceus. The Rev. A. T. Boscawen and Mr. Robert Fox were equal second. The former had Acacia diffusa, Anopteris glandulosus, Erica melanthera, Camellia reticulata and Clematis indivisa; while the latter staged, among others, Acacia riceana, Calceolaria violacea, Spiræa Thunbergii and Daphne indica rubra. For the large collection of Rhododendron blooms (not to exceed twenty varieties) Mr. D. H. Shilson was first. He had fine examples of the following: R. Thomsonii, R. Shilsonii (deep blood red), R. var. Gill's Triumph (cerise) and R. argenteum. Mr. Robert Fox was second.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

RAISING PERENNIALS FROM SEED.

IT is quite possible for an amateur with only limited accommodation to raise a really good collection of perennials from seed at a comparatively small cost. A large number are best raised in the open ground, while with others it is a great advantage to have a cold frame.

The natural time for sowing seed is just when it is ripe; but this is not always possible, and with the exception of a few cases, mentioned later, it is not necessary. March, April and May are excellent months for the purpose; many perennials sown during these months will flower the same year, and those that do not flower will be strong enough to stand the rigours of the winter.

I propose to deal first with those perennials that can be raised in the open ground. A good plan to adopt for sowing outside is to make a bed about 3 feet wide; let it be well dug and the soil thoroughly broken up. If heavy, mix in leaf-mould or peat, and make the surface quite fine by raking. Make shallow drills across the bed, in which scatter the seed thinly and evenly, and cover to the depth of one-eighth of an inch with fine soil; make firm by gently patting with the back of a spade. If the soil is dry, water with a fine rose. Unless the bed is in a shady position it is advisable to make a framework with short stakes, and shade with mats until germination takes place.

When the seedlings are large enough to handle transplant to nursery beds, allowing about 6 inches each way between the young plants. They may remain in this position until the autumn, when they should be planted in their permanent quarters.

The following is a list of perennials that may be raised in the open ground: Alyssum saxatile, Anchusa italica, Aquilegia (various), Catananche cærulea, Coreopsis grandiflora, Delphiniums, Dianthus deltoides, Echinops Ritro, E. sphærocephalus, Erigeron speciosus, Gaillardias, Galega officinalis, Geum coccineum, Gypsophila paniculata, Lathyrus latifolius, Linum perenne, Linaria dalmatica, Lupinus arboreus, L. polyphyllus, Lychnis chalcedonica, L. coronaria, Papaver orientale, Primroses, Polyanthuses, Violas and Pansies.

I would point out here, for the benefit of the inexperienced, that if any particular form of florist's flower is desired, it is practically useless to attempt to get it from seed, as it is highly improbable that any of the seedlings will be exactly like the parent, though many excellent forms may be obtained. Again, varieties of species cannot be depended upon to come quite true. In the case of the pink variety of Lupinus polyphyllus one may expect 75 per cent. true, while with the white variety of Dianthus deltoides the percentage is as high as 95.

We now come to a class of perennials which it is advisable to raise in a cold frame. For this purpose I recommend 6-inch pots or shallow boxes, preferably the former. It is important that the compost should be porous and friable, as it not only allows the young seedlings to root freely, but when they require pricking-off one is able to separate them without breaking the roots. The following will be found to answer the purpose: Two parts loam that has been passed through a quarter-inch-mesh sieve, one part leaf-mould, one part silver sand and about half a part fine wood-ashes. Fill the pots to about one-third of their depth with broken crocks, cover these with a layer of the rough loam that would not pass through the sieve, and fill the pots to within half an inch of the rim with the compost, which should be pressed moderately firm and made level. Give a thorough watering, and allow an hour or two to drain. Distribute the seed evenly over the surface and cover very lightly with fine, dry soil.

A green, mossy growth which forms on the soil of seed-pots is a serious trouble, especially in cases where germination is slow; this can be prevented by covering the surface to the depth of an inch with rough moss, which, of course, must be removed as soon as germination takes place. A sprinkling of Vaporite in the frame will effectually destroy all slugs, which would otherwise do considerable damage.

If the frame is kept moist and shaded, very little watering will be necessary before the seed germinates; but if the soil becomes dry it should be sprinkled with water from a fine rose. As soon as the seedlings are large enough to handle, prick off into boxes about 2 inches deep, using a similar compost to that used for sowing the seed, with the addition of a little more loam. Place the boxes in the frame and keep close and shaded until the seedlings start into growth, gradually harden off, and

finally remove from the frame altogether. When the boxes have become filled with roots, the young plants may be either put into nursery beds or into the positions where they are intended to flower.

The following perennials may be raised in a cold frame: Arenaria montana, Aubrietia deltoidea, Auriculas, Campanula carpatica, C. grandis, C. persicifolia, C. pusilla, C. pyramidalis, Delphinium grandiflorum, D. nudicaule, Erysimum purpureum, Helianthemums, Heuchera sanguinea, Iberis sempervirens, Linum flavum, L. narbonense, Leontopodium alpinum, Lychnis haageana, Meconopsis cambrica, Morina longifolia, Ononis rotundifolia, Papaver pilosum, P. rupifragum, Pentstemon (various species and mixed florists' varieties), Platycodon grandiflorum, Saponaria ocymoides, Scabiosa caucasica, Silene Schafta, Statice (various species), Tunica Saxifraga and Incarvillea Delavayii. The following should be sown as soon as the seed is ripe: Eryngium (various species), Anemone alpina, A. Pulsatilla, A. sulphurea, Gentiana (various species), Primula farinosa, P. japonica, P. rosea and P. sikkimensis. The Primulas if sown in pots in a frame will germinate very quickly, but the others generally take from six months to a year; they succeed best if sown in pots and plunged outside in sand or fine ashes in a shady situation.

Stevenage. C. DAVIES.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 25.—Royal Horticultural Society's Meeting and Exhibition, also Daffodil Competition and Auricula and Primula Show, at Vincent Square, Westminster, S.W. Lecture at three o'clock by the Rev. J. Jacob on "The Tulip: Its Problems and History," illustrated by lantern slides. Wood Green and District Horticultural Society's Meeting.

April 26.—British Gardeners' Association's Examination. Irish Gardeners' Association and Benevolent Society's Meeting. Royal Horticultural Society's Examination of School Teachers. Hereford Daffodil Show.

April 27.—Midland Daffodil Show at Birmingham Botanic Gardens (two days).

National Rose Society. — A special general meeting will be held at the Westminster Palace Hotel on Tuesday, April 25, at three o'clock to receive the report of the council on the proposed revision of the rules and bye-laws of the society. At five o'clock on the same date a Rose conference will take place, when the president, the Rev. J. H. Pemberton, will give an address on "Roses for the Garden," to be followed by a discussion. To this meeting members and their friends, including ladies, are invited. At seven o'clock a dinner will be held, at which the Rev. J. H. Pemberton will preside.

Metropolitan Public Gardens Association.—The twenty-eighth annual report of this association bears testimony to the good work that is being carried out in the preservation and extension of open parks and spaces in and around London. The report contains full details relating to the extension of Wimbledon Common and Putney Heath, Streatham Common and open land by the River Wandle, the preservation of portions of Hampstead Heath from enclosure, and the acquisition for the public of sites in Paddington, Kilburn, Shadwell and Richmond. Unlike many philanthropic undertakings for the cure of disease, the association, whose work has a direct bearing on its prevention, has so far only derived about £1,000 from legacies during the twenty-eight years of its existence. The report should commend itself to all who are in any way interested in the provision or preservation of open spaces and in the beautifying of dull streets. The hon. secretary is Mrs. Holmes, 83, Lancaster Gate, London, W.

North of England Horticultural Society.—This new society has just published the first number of its Monthly Magazine and Circular. This publication contains a number of interesting contributions, such as "Soil Germs and Plant Food," by E. J. Russell; "Qualifications of a Gardener," by "E. F. H."; while the secretary, the Rev. J. Bernard Hall, writes on "The Education of a Gardener," and points out that if there is one problem which the newly-formed society might profitably consider it is that of how a gardener should be trained for his work. We are not quite sure as to the future



AN ABNORMAL ARUM.

work of this new journal, but the following extract from the first issue may throw a ray of light upon the subject: "In the course of time we shall no doubt settle down to our work of drawing attention to, if not indeed criticising, the contents of the weekly Horticultural Press." We wish our contemporary every success in its novel undertaking, but question the advisability of such a policy while it is yet in its infancy.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Arum Lily with a curious leaf.—The Arum Lily appears to be somewhat addicted to the curious formation of abnormal spathes. In the instance of the specimen shown in the illustration, the spathe of the flower is quite normal, but the leaf accompanying it has assumed a spathe-like appearance owing to the absence of green colouring matter, or chlorophyll. It is customary to refer to such a singular formation as a "freak," a term which of late has been very much criticised by scientists, since it is now held that "sports" and all other variations are due to some cause which so far is imperfectly understood. Under these conditions the term "freak" is a convenient word to cloak our ignorance of an unknown cause. The illustration was prepared from a specimen recently shown by Mr. A. Dean before the scientific committee of the Royal Horticultural Society.

The Jersey Potato crop.—Having read different accounts in several English papers *re* our Jersey Potato crop, many of which are very misleading, and thinking perhaps you would be pleased to know the true state of affairs, I thought I would write and let you know exactly how things are. Before the frost of a week or so ago, there was every appearance that this season would be, bar accidents, one of the earliest known; but the frost, which was a severe one, damaged the whole of the crop that was above ground. I have examined the crop from the extreme east to the extreme west of the island, and am pleased to say that, although the leaves are frozen, the stem is not entirely destroyed, and already the Potato plants are throwing shoots from the lower part of the stem that resisted the frost. All farmers I have interviewed say that, with good weather, it probably will not affect the weight of the crop, but is bound to delay the ripening quite a fortnight. This will throw our average time of digging a few days behind other years, instead of being an extra early season. If no further frost is experienced, a few farmers will commence digging at the end of April or the first week in May; but there will not be any heavy weight till the end of May.—A. J. NORMAN.

Rose William Allen Richardson with pale flowers.—The references to this Rose by several correspondents induce me to ask the question, Are there more forms of this variety than one? I will give my reason for doing so. While paying a visit to Cheshire last year I was astonished to see buds of Rose William Allen Richardson nearly twice as long as any I had ever seen before. Moreover, the colour was much richer. Some of the clusters contained sixteen blooms. The front of the house was covered with Ivy of great age, so readers will readily realise how very full of roots the soil was, and that the Rose tree was at a disadvantage growing as it did in the same border. Yet I have never seen a plant of the variety as luxuriant, and it was never fed with manure nor any other kind of stimulant. This plant was not a young one; it was many years old. The position was a south-west one. With regard to the colour of the flowers generally, I am quite sure that it will be richer in some soils than in others, without regard to aspect. I know of a big hedge of this variety in a garden at Highgate. The aspect is a north one, and on the south side tall trees are growing. Even in the warm days of summer the position is a cool one. The flowers are all that one could wish for as regards colour.—AVON.

The proposed Pansy society.—"A. D." in his further letter respecting the formation of a Pansy society has another little "dig" at the National Hardy Plant Society. He remarks that this society "is taking on a big job." No one realises this better than the writer and his co-workers who brought the society into being; but with willing workers and the whole-hearted support of all lovers of hardy flowers, whether of Pansies or Delphiniums, alpines or border plants, the National Hardy Plant Society will be equal to its task, and will undoubtedly do far more good than half-a-dozen small societies each catering for an individual plant. It is because we have a big job in hand that we have to move slowly at the start;

but if "A. D." and other critics will give us of their help and advice, rather than stand aloof to criticise, we shall soon be able to quicken our pace. —A. J. MACSELF. [This correspondence must now cease.—ED.]

Dot plants for Begonia beds.—In your issue of March 25 I notice a short article on dot plants for Begonia beds. I have used with success Heliotrope of the variety President Garfield. Cuttings struck singly in small pots in February and grown on in a warm house without stopping make good plants for planting out in June, and are much appreciated. Kochia tricophylla, or the Mock Cypress, is also a very suitable subject for associating with Begonias. This is easily raised from seed sown in February in a brisk heat and gradually hardened off, making good plants by bedding-out-time. The symmetrical form and bright green colour of this plant are very striking, making it a conspicuous object when planted out among Begonias. It is also very effective as a drop plant among Violas.—J. WOOD, *The Gardens, St. John's Lodge, Regent's Park, N.W.*

Grafting-clay.—When conducting the process of grafting, no doubt coating the tied-in grafts with wax is the simpler and cheaper method. But in the case of grafting large or old trees, on which the stems may be from 2 inches to 6 inches in diameter, such as Mr. Wilson refers to on page 163, it is best to use clay, as that forms a denser coat than wax and more fully excludes air. The best grafting-clay I have ever used was composed of two-thirds of dry clay, well broken up, and one-third of fresh horse-manure, well beaten up, both these ingredients being mixed with water to create the needful plastic quality. Such coatings, used many times on large trees, I have never found to crack. But after moulding the clay properly over or around the grafts, I made it a rule to have a pail of water near into which to dip my hands, and then while wet rubbed them over the clay, thus smoothing it off very neatly, leaving a perfect finish. When it dried, the smoothing off had the desired effect of closing up every little orifice and of leaving a surface that became very hard. Under such conditions good grafts never failed to grow.—A. D.

Federation of allotment societies.—That the Hillfields and District Allotment Association have decided to register themselves under the Industrial and Provident Societies Acts is, at least, the first step in the right direction; but to immediately state that they wish to remain independent for the present, because they know of no society sufficiently democratic to which they can bind themselves," appears to be a step in the opposite direction. Mr. Morrell has evidently not heard of the Agricultural Organisation Society and the good work it has already done, and will continue to do, in assisting such societies and associations as Mr. Morrell's to place themselves on a co-operative business basis. It gives advice to approved societies through its official organisers, supplies model rules, forms of application and other particulars gratis, and societies conforming to these rules can be registered at a reduced fee of 1*l*. It has done good work in assisting societies to obtain suitable land for their needs, which appears to be the chief obstacle to the progress of the Hillfields and District Society; and I can assure Mr. Morrell (its secretary) that he will get just what he requires if he applies to the secretary of the Agricultural Organisation Society, Dacre House, Dacre Street, Westminster, London, S.W. I have also cut out his letter from THE GARDEN and forwarded it to the Agricultural Organisation Society's official organiser, with whom I am personally acquainted, and who resides in this town.—J. C. WADD, 92, *Moore's Road, Belgrave, Leicester.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

MELONS.—When the fruits on the earliest plants commence to ripen, the atmosphere must be kept less moist and air admitted more liberally than hitherto, especially during warm, sunny weather. At this period stimulants must be withheld, but it is not good for the flavour of the fruits to allow the rooting medium to become dry too quickly. Cut the fruits before they are quite ripe and place them in a cool room; the flavour will be better and the fruits will keep longer in good condition by so doing. Raise another batch of plants in readiness to replace the old ones. After this date it is not necessary to grow the plants on a hot-bed in heated pits, except the latest batch. During the summer months some of the unheated frames may be utilised for growing Melons and Cucumbers. For this method it is important to have a well-prepared hot-bed consisting of equal parts of leaves and stable litter to supply the necessary heat. Much care and attention must be exercised in ventilating the pits, especially during changeable weather.

Late Muscat Grapes.—Examine the borders, and if necessary water them before the Vines come into flower. If any difficulty has been formerly experienced in setting the berries, this may be overcome by using the pollen from some free-setting variety. The pollen can be collected on sheets of paper and applied by means of a rabbit's tail or camel-hair brush. Before flowering commences attend to the stopping of lateral growth; but, unless the shoots are touching the glass, they need not be tied down till the bunches are set. Do not be too hasty in removing the surplus bunches till it can be seen which are the best. A medium-sized, compact bunch is much to be preferred to a long, straggling one. The shoulders on some of the larger bunches will need looping with a neat piece of raffia, and when thinning the berries be careful not to thin the shoulders too severely. When thinning is finished, give the borders a dressing of Le Fruitier and lightly fork this in. Then apply a mulch of rich farmyard manure, and thoroughly wash this into the soil with tepid water.

Late Vines.—The surplus shoots should be removed from these before they become too large. Bear in mind that late Grapes require a good covering of foliage to keep them in fine condition over a long season; therefore sufficient shoots must be left to ensure the trellis being well covered with foliage. But on no account must there be overcrowding. It is bad practice to keep Strawberries on shelves in late houses to mature their crops, unless the shelves are well out of reach of the Vines. There is nearly always red spider present on the Strawberries, and should this obtain a footing on the Vines, it will do irreparable damage. Wash the shelves with soapy water after the Strawberries are removed.

Early Tomatoes.—When the plants have set three or four trusses they may be stopped and placed into more heat. This will encourage the fruits to swell freely and ripen earlier. The plants will now require plenty of stimulants. A top-dressing of loam and well-rotted manure in equal parts will also be of benefit. Pot on later batches before they become pot-bound, and keep them near to the light. At this time of the year a gentle tapping of the trellis is all that is necessary to set the fruit.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT GARDEN.

HARDY FRUITS.—The growths on these are now making an appearance, and disbudding should be commenced as soon as the shoots can be rubbed off by means of the thumb and finger, continuing this at intervals until sufficient have been removed.

Apricots.—These are the first to need attention. Begin at the top of the tree, as the growths here will be found slightly in advance of those lower down, working gradually downward to the base. If properly attended to at this season, there should be little pruning left to do next winter. Remove all outgrowing shoots and those at the back. Train in young growths near to the base of the branches that are likely to become useless and which will have to be removed in the near future, and preserve all others that are wanted for filling up spaces and for fruiting the following year. Disbudding is one of the most important details in fruit culture, and should only be performed by an experienced hand, for the formation of a well-balanced and fruitful tree depends very much on the removal of ill-placed shoots and the retention only of those required to form an evenly-shaped head. Old trees thickly studded with spurs frequently set their fruit in clusters. As soon as it is seen which will swell best, they should be thinned out, removing first those that are likely to get crushed; but avoid at all times wholesale thinning, and remember that many may fall during the stoning process. Keep a sharp look-out for aphis, and if discovered apply some good insecticide with the syringe as soon as the fruits are fairly set.

Black Currants.—The pest known as Currant mite, gall mite, or big-bud, seems still to ravage many plantations. Hand-picking of the enlarged buds at this season may still be carried on where the pest has only got a partial hold. Dusting the branches with a mixture of lime and flowers of sulphur is recommended for a severe attack. This must be repeated frequently until the leaves develop; and to ensure the application having a good effect, it is necessary to apply the lime and sulphur while the branches are in a damp condition. Should the pest show no signs of diminution after careful experiments, then the only course left is to destroy the whole plantation, and this must be done in a thorough manner, burning not only the roots and branches, but charring all the surface soil as well, after which a fresh plantation should be made in a distant part of the garden with young clean stock.

Raspberries.—Remove all suckers as they appear between the rows, unless where young plants are required for next season's planting, when a selection of the most promising should be left. These should be at some little distance from the stools, so that no undue disturbance of the roots may be caused when lifting the young canes. Weak growths may also be pulled out, reducing, as in other fruit culture, the winter pruning or thinning to a minimum. Canes that were planted last autumn and that were cut down to near the ground-level will now be producing numerous suckers, and only the strongest of these should be left.

Hoeing.—Take advantage of dry days to clean the surface of the ground in the fruit quarters. At this season of the year, when the seeds of many troublesome weeds are at the point of germinating, a lot of good can be done by frequently stirring the surface soil with the hoe, this not only checking the growth of weeds, but aerating the ground.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE GREENHOUSE.

A LITTLE-KNOWN BULBOUS PLANT.

(IXIOLIRION TATARICUM.)

NOT being a botanist, I cannot presume to offer any opinion as to what is the correct name of the plant which figures in the vase illustrated below. Nicholson gives montanum as a synonym for tataricum, but elsewhere I find the two names are given as distinct. Macranthum is probably a sub-variety of the above or one of them. [According to the "Kew Hand List," macranthum and tataricum are varieties of montanum.—ED.] I mention these different names in case they are found in catalogues, so that anyone buying one of them may know that he has got something practically the same, whichever it is. They come from Mid or West Asia, and in warm, light soils are hardy. In colder places they should be planted under a wall where they will get plenty of sun. They are cheap bulbs. A few shillings will be sufficient to buy enough to test them.



A VASE OF IXIOLIRION TATARICUM AND GRASSES.

If they succeed, as I expect they will, they are sure to be popular, not only in the garden, but more especially for cutting. "Eh! what have you got there? Blue Freesias? Why, you have gone one better than van Tubergen, have you?" This is what was said *à propos* of a vase I once had in my study. Blue Freesias gives an excellent idea of what they are like. They are more or less tubular flowers, as may be seen from the illustration, of a colour which, if it is not a real blue, is something very near it, quite pretty, and, as the plant is propagated by seed, of many very pleasing shades. They grow about 18 inches high. I have them under glass, bringing them slowly along in a cold frame until about mid-March, when they are put into a cool greenhouse temperature. With this treatment they come rather paler and more delicate in tone, and are especially charming. They last very well indeed in water and, again like Freesias, any good-sized bud will expand.

JOSEPH JACOB.

THE AMATEUR'S GREENHOUSE IN SPRING.

THE professional gardener with sufficient glass at his disposal finds it exceedingly easy to furnish his conservatory with plenty of flowering subjects throughout the early spring months; indeed, March, April and May are so well provided for, with him, that they constitute the brightest months of the year. Not so, however, with the less-favoured amateur, for whom the tiny greenhouse has to suffice. To such it may be of service if I lay the claims of hardy subjects before them as being not only effective, pretty and otherwise satisfactory, but also requiring but little attention and practically no shelter throughout the winter.

The value of many hardy flowering shrubs has long been recognised and appreciated; for instance, the Azaleas, Rhododendrons, Deutzias, Lilacs and a host of others grown so largely in pots. But though there are many equally suitable subjects among herbaceous plants, these have not been so generally adopted. True, for many years the Astilbes, Dielytras, Polygonatums and a few others have been used as general stand-bys, with a few Irises as an occasional change; but I have successfully used many other varieties of hardy plants, which I can strongly recommend to those whose accommodation precludes them wintering more tender things.

The Aquilegias, in their varied forms, make admirable pot plants; their graceful, delicately-coloured blooms are always more than welcome, and never more so than when flowering two months before their regular season. The Helleborus has long been used as a pot plant; but less often do we see the Hemerocallis, or Day Lily, put to this use. Yet both the foliage and flowers are peculiarly attractive and decorative, and it can be hastened into bloom even after lying about the back yard or buried beneath the winter snows. There are many kinds of Iris which, in my opinion, are among the very best of subjects suitable to early pot-work; not only I. pumila, I. reticulata and I. sibirica, but I. tectorum (which in China and Japan is grown on the roof thatches), I. stylosa (the midwinter sky blue variety so well known), I. cristata (azure blue and lilac, striped with gold), with others, not even excluding I. germanica in its numerous forms.

Primulas out of number urge their own peculiar claims to distinction, for though impatient of heat, they will, with but trifling encouragement, yield their fullest charms ungrudgingly. The new variety, P. malacoides, which, strictly speaking, is not herbaceous, but should be treated as an annual, is one of the prettiest and most effective. P. denticulata (a Himalayan species of robust habit, with round heads of lilac-coloured flowers), P. capitata (violet coloured) and P. megaseæfolia (purple) are useful and of distinct effect; and while other species crowd up for notice, one has to pass them by. Yet we cannot omit the double forms of P. vulgaris in at least three colours, which throw their blooms well up on long stalks and are by no means fugitive in their lasting qualities.

Campanula pyramidalis is too well known to need our advocacy; but we do not use C. persicifolia and C. lactiflora nearly so much as they deserve. Hardy Cypripediums, such as spectabilis and Calceolus, are too often shunned. simply because they are classed under the genus "Orchids"; yet they are not only comparatively easy to grow, but, when grown, successfully vie with more tender species in beauty of form and delicate colouring. Indeed, it would be difficult to find a more charming flower than C. spectabile. The well-known Bridal Wreath (Francoa ramosa) should be better known, for what can help to set off a conservatory better than this with its long and towering spikes of pure white flowers?

Funkias, as foliage plants, and more especially the variegated form, may and will become the poor man's ornamental plant in the early greenhouse. Indeed, there are so many of these accommodating plants crowding upon the mind when writing on this subject that it becomes imperative to leave them for the present. What I am suggesting is that there are many amateurs' greenhouses which have a poor display of flower and foliage in the early spring, simply because ordinary greenhouse plants may not be wintered. There are crowds of hardy flowers, requiring practically no winter shelter, which, brought into these greenhouses, would quickly respond to treatment and fill up the interregnum at but trifling cost either in money or labour. If these notes reach the eye of any of the said amateurs, they may be persuaded to introduce some of the erstwhile plebeian plants into their houses and find an ample reward.

NURSERY MANAGER.

A DISTINCT VARIETY OF OLEA FRAGRANS.

To the lover of uncommon plants, one of the most interesting subjects is a variety of Olea fragrans bearing a profusion of coloured blossoms. The ordinary form, with whitish flowers, has long been known in this country, having been introduced in 1771. It may occasionally be met with treated as a greenhouse plant in old-fashioned gardens, for though its ornamental qualities are not of a striking character, yet the small flowers, which are freely borne, are deliciously fragrant. For this reason it has held its own in some gardens. The variety above alluded to was

shown before the Royal Horticultural Society last autumn under the inappropriate name of rubra, but in reality the flowers were of an orange or orange buff tint. As shown it was decidedly pretty, and, possessing as it does the delicious fragrance of the typical form, this will be an additional recommendation. Though in gardens and nurseries invariably regarded as an Olea, it is by botanists included in the genus Osmanthus, the hardy members of which have small but fragrant blossoms. The coloured variety above noted, shown by Mr. Bennett-Poë, was said to have been obtained from Italy some years ago.

H. P.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

BEET.—This important salad crop is, unfortunately, exceedingly tender, and the young plants will not withstand frost, with the result that sowing has to be postponed until a late date as compared with other tap-rooted vegetables. Globe or Turnip-shaped varieties are, of course, sown earlier; but they rarely have quite the quality of the tap-rooted sorts. Sowing should take the form of dropping seeds at intervals of 6 inches to 8 inches in drills in specially-prepared soil that is notable for its friability rather than for its richness. In districts where birds play more than ordinary havoc with the seedlings, growers are advised to rely upon a green-leaved variety as a measure of precaution.

DWARF FRENCH BEANS.—In the majority of amateur's gardens it cannot be said that this crop is satisfactorily grown, for the simple reason that they cannot be persuaded to see the imperative necessity of allowing the plants plenty of space for proper development. When the distance is only 3 inches or 4 inches, it is impossible for the plants to branch as they naturally want to do, and the result is loss in the production of pods. If more lines than one are grown, the distance between them should be at least 2½ feet, and if it can conveniently be 3 feet, so much the better. From plant to plant in the row not less than 1 foot must be allowed, and an additional 3 inches or 4 inches will immensely improve the excellence of the crop. It is futile to anticipate heavy crops unless the ground is deeply worked and generously manured, and at no period ought the plants to be permitted to cease advancing. Sowing should commence at the end of the month, and may continue successively according to requirements. For general use there is no variety superior to Canadian Wonder.

SCARLET RUNNERS.—These, too, are tender plants, and the man who rushes the sowing sees the leaves of his plants turn a sickly yellow hue, and finds that they seldom recover from the severe check which they then experience. As a rule, the first week in May is quite early enough to commence sowing, and it is by no means certain that there will be any real loss if the seeds are not in the ground before the middle or the third week in the month. With these, as with other Beans, the depth of planting will vary from 4 inches to 6 inches.

PLANTING-OUT.—The importance of this operation is too commonly overlooked. When seeds are sown in specially-prepared beds, the thinning which is necessarily done suffices to keep them in splendid condition for a certain period; but when they have occupied the space thus provided, they should be pricked out to a greater distance, or there will be a real danger that they will suffer from lack of food. It is true that the operation increases the already abundant work that calls for attention in the vegetable garden, but it ranks with the most urgent operations, since it spells the difference between partial and complete success.

thin, poor soil will never yield the finest results, and no efforts ought to be spared to make the position chosen as deep as possible or to be generous in the use of rotted manure. No variety should be grown closer than 6 inches in the lines, and the best ones demand anything from 9 inches to 15 inches for perfect growth.

POTATO PLANTING.—Except in the latest districts and the coldest soils, all Potato planting should be finished by the end of the first week of next month. The varieties dealt with at this season will be late growers, and it is hoped that the tubers produced will be such as will keep well on into the next year, unless, of course, they are previously consumed, which is improbable, as most of them do not develop their finest flavour until after Christmas. The rows ought to be 33 inches to 36 inches asunder, and the sets should be allowed from 15 inches to 18 inches apart in them. The soil must be in good condition, and



ANEMONE SYLVESTRIS GRANDIFLORA.

THE FLOWER GARDEN.

THE FASCINATION OF THE ANEMONE.

(*Continued from page* 168.)

MR. T. SMITH of Daisy Hill, Newry, has most kindly written to point out that I am mistaken in stating that Blue Bonnet, the latest of the blue Wood Anemones to flower, was one of Mr. Allen's seedlings. It was found in Wales and sent to Newry, and distributed from thence like so many other floral treasures.

Anemone sylvestris must come next. Its garden name of Snowdrop Anemone always charmed me. The very idea of such a combination of lovely flowers and characters sounded ideal, and so, of course, I planted it, and it ran about and looked like some weedy Buttercup, and never a flower did it give me. Then I came across the var. baicalensis, and for several seasons rejoiced in its lovely white flowers. What though they had purple exteriors of rather a dingy hue so long as they possessed such snowy interiors? Well, this form ran about too. It was certainly a kind that flowered more freely than the type; but it, like many perambulating plants, seems to exhaust the soil in its old position and to want to walk into someone else's, and by now it has walked itself out of existence with me, and I do not mourn for it, for I have a new love in the form of another variety called grandiflora. It walks too, but not more than I can wish, for one can hardly have too much of such a beauty, and outlying portions find homes easily in other gardens. The original clump is still in its first home, and a good healthy one, proudly playing patriarch to its colony of surrounding tufts.

The accompanying illustration shows its character so well that I need not describe it, but only add that the flowers are half as large again as in the type, and are freely produced. There is also a double form, but this is a shy bloomer, and though it possesses the one merit common to most double flowers—a longer life for individual blossoms—I feel that is all the due I need give to this particular "devil," so much do I miss the golden anthers and green central boss of the single form.

I am now nearing the end of the list of Anemones that are happy here; but there still remains the group of Pulsatilla forms, the Esaus of the family, for the outside of their sepals are more or less covered with silky down, and the involucral leaves are divided into long, narrow strips, which are covered with grey hairs, giving a charming furry effect to the flowering scapes. The wild form is not uncommon on chalk hills in some parts of England, but is a small and deeply-coloured one, and not so handsome as the paler and larger one generally seen in gardens. This is a splendid subject for the edge of a sunny border or on slopes of well-drained rock gardens, and, once established, will go on improving annually for many years. Anyone having one healthy plant can soon have many more; in fact, nothing but laziness or lack

of space need limit the extension of his Pulsatilla patches, for seeds are very freely produced, and just as freely will they germinate if only, and this is the one important point, they are sown immediately they ripen. They then germinate in a few weeks, and for the rest of the season look rather like baby Buttercups. The next spring they begin to show the characteristic fine division of the leaves.

It is a good way to sow the seed where the plants are wanted, as they soon make a long tap root; but yearlings can be transplanted with success if carefully handled and the root not only unbroken, but tucked up carefully and lovingly in its new bed, so that its poor knees or back are not doubled up but it can stretch down its full length without a kink. I have a fine old plant of A. pratensis montana in the rock garden that annually sends up dozens of its tall scapes and nodding deep purple flowers. Though so tall and strong-looking, I consider them rather disappointing, as they hang their heads all their flower-life and never open wide enough to show off the rich depth of colouring of their inner surface, and the outer surface is rather dull on account of the grey fur with which it is covered. But even if they were mud-coloured and hideous in form, I should still grow it for the sake of the great feathery tails that grow from each seed. When the seed-heads are nearly ripe, the stems straighten and the grey shaving-brushes are singularly attractive.

There are good white and also red forms of A. Pulsatilla, and by raising them from seed much variation in colour may be obtained.

A. rivularis is a good plant for a damp, shady, or peaty corner. It grows some 2 feet or more high, and in July produces a branching stem and many small pure white flowers tinted with purple and blue on the back. These are followed by large green seeds, achenes with strong hooks at their tips that claw into passers-by and are thus easily distributed, and I find self-sown youngsters especially by the sides of paths.

The many forms of A. japonica are, or should be, so well known as to need no description here. But one of the very best to my idea, and that has not come to the honour it merits as yet, is a form now being listed as A. japonica hupehensis. It is, I believe, the original wild form of this Anemone, and has all the attractiveness that so often belongs to a real pure species. The flowers are of a peculiar shade of deep pink, and the sepals very round and cupped. The flower is much more regular and beautiful to my taste than that of the nasty, crumply, ragged wretch that has so long done duty in our gardens as the typical red A. japonica, and which is evidently a semi-double form of garden origin that, like the double Kerria and Chrysanthemum and many other Far Eastern plants, found its way to our gardens before the real wild type did. With the species and forms I have mentioned in these notes any ordinary garden should have some Anemone giving beauty and interest either of flowers or seeds from early in the year until the sharp frosts put an end to the charms of A. japonica.

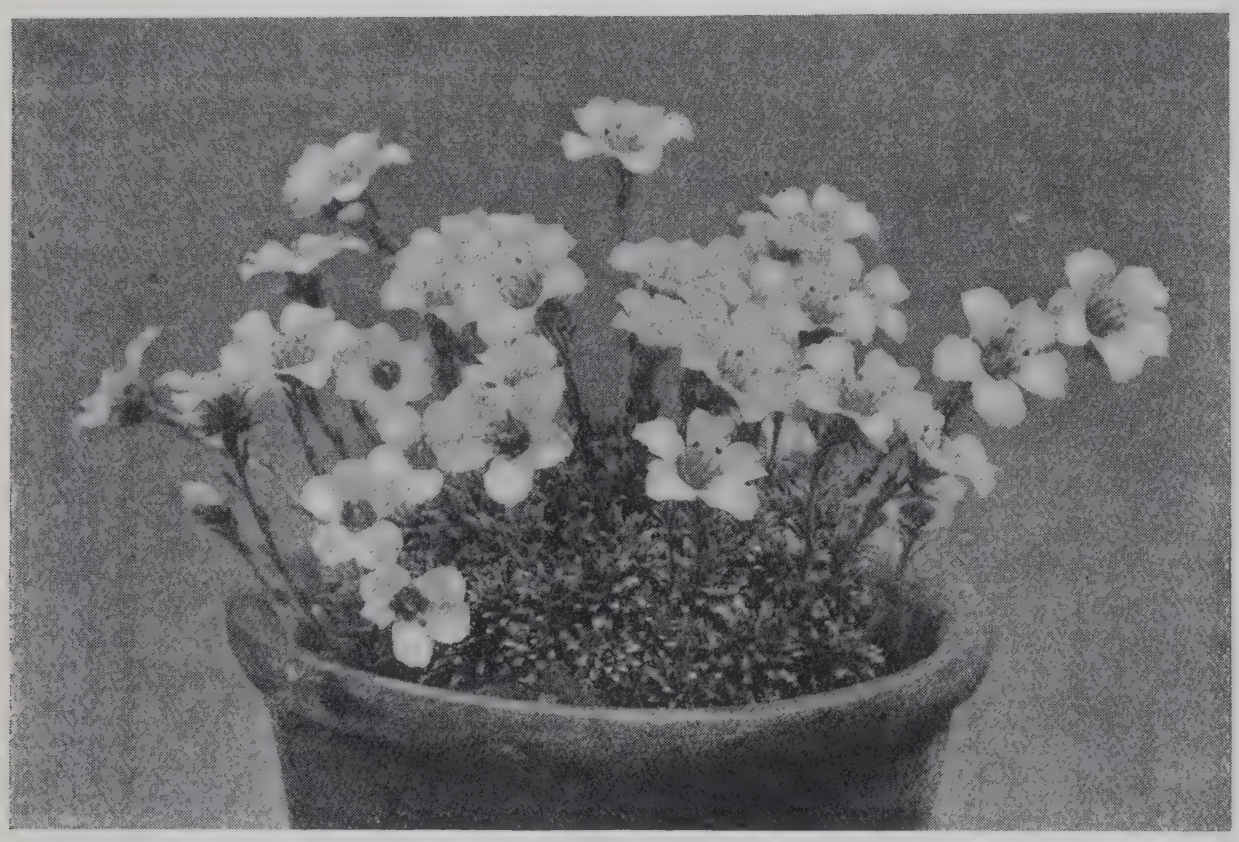
E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

A NEW SAXIFRAGE.

(SAXIFRAGA PETRASCHII.)

THIS is an encrusted Saxifrage remarkable for its wonderful profusion of flowers of snowy whiteness. There seems to be a little doubt regarding the origin of this beautiful plant, as it is held by some authorities to be a new species from the Transylvanian Alps, while others regard it as a hybrid between S. tombeanensis and S. rocheliana. It was shown recently by Sir Everard Hambro, K.C.V.O., together with an excellent collection of Saxifrages and other alpine plants, which gained the Royal Horticultural Society's gold medal. Saxifraga Petraschii was granted an award of merit. The foliage is glaucous and compact, and the silvery grey of the rosettes enhances the beauty of the plant.



SAXIFRAGA PETRASCHII, A NEW SPECIES OF THE ENCRUSTED SECTION.

THE TREATMENT OF HARDY FERNS IN SPRING.

THE rapidly-increasing popularity of hardy Ferns, and particularly of the innumerable beautiful varieties of our native species, fully justifies a few notes as to the best method of dealing with these in the early spring, when new growth is commencing and an overhauling is necessary. Some time before any growth is obvious the roots of Ferns awaken to activity, and closer inspection will show in most species that the crowns or growing centres are swelling up and preparing to lift the plumy foliage already closely coiled up within them.

After the long winter's rest, with Ferns as with other plants, they are in a vigorous condition, best calculated to withstand disturbance and to make a fresh start afterwards. The coming frondage, too, being still tightly packed up and undeveloped, is far less liable to damage than later on. If we now examine the rootstock of a Fern of the shuttlecock or crown-forming type, we shall find a multitude of fresh roots pushing out from the bases of the future fronds, and it is largely these to which the season's growth will be due, though the soil may be pervaded with a system of older ones to act as accessories.

In the open Nature protects these incipient feeders by means of the old or decaying or even dead fronds of the previous season, according to their deciduous or evergreen character; and where Ferns thrive in woodlands or sheltered glens, a liberal mulching of dead leaves also assists in this connection. As a result, it is not wise to make too drastic a clearance of such *débris* on the rockeries or beds occupied by outdoor Ferns; and if the fronds have to be removed for the sake of tidiness, a good mulching of old leaves should replace them, so as to avoid exposure of the fresh roots in question and of the crowns themselves to the risk of the drying winds of March or April. Green fronds of the evergreen species should be left intact for the present.

This precaution is the more essential in Ferns of the upright-growing type in question, the Male Ferns and their kin, Shield Ferns and Lady Ferns, as these tend with age to grow well out of the soil, and are thus, more than others, exposed to the risks described. Ferns, on the other hand, of a more or less burrowing character, like the Polypodies, Bladder Ferns, Bracken in its beautiful varieties, and others, can take care of themselves, the soil itself constituting their protection; but even with these Nature provides an annual mulching of dead leaves, and this is, therefore, beneficial under culture.

Obviously, from what is stated above, the present is the fittest time of all the year for starting collections, rearranging such, and particularly for propagating by division, since there are, as I have indicated, no delicate fronds as yet to damage and root-action is most vigorous to encourage re-establishment after shifting. If we examine old-established plants of the crown-forming type, we shall usually find the originally single crown to have developed into a bush of several, or even many, the result being, when the fronds are developed, a mass of intermingled foliage, in which the distinctive character and habit is more or less lost and distorted. The size of the fronds will also be dwarfed considerably, so that, instead of one beautiful all-round specimen with fronds 3 feet or even 4 feet high, and its tassels or other particular character developed to the full, we have a bunch of fronds of half the size and of much inferior type. On closer examination we shall find that these additional crowns have been developed either by the formation of lateral offsets, by budding, or by fission or splitting up of the original crown. Each of these in either case is really an independent plant with its own system of roots.

The lateral offsets can be easily forced off the main stem by a blunt trowel, and come away all ready rooted, only needing planting elsewhere or potting, as the case may be. The other kind are usually attached together by a very solid neck, and in this case time must be given for each crown to lift clear from its neighbour, when a cut into the

onnecting neck with a sharp knife will permit of ne crowns being pulled apart and planted separately ke the others.

Most of the Shield Ferns are less apt than the thers to multiply in this way, unless their original rown has been damaged in some way, when the entral check induces lateral growth, in which case ne foregoing remarks apply. This family, however, n many of its forms, and particularly its so-called roliferum varieties, is apt to develop small plants n the fronds themselves, usually near the base, nd these can be severed with 1 inch or so of the rond, and will root if layered and kept close, or ven if inserted at the edges of pot plants.

Hart's-tongue Ferns belong to ne crown-forming section, but on ss obvious lines, and good speci-ens are best left alone. In time, owever, when separate growths re clearly shown, they can be rised off with their own roots ke the crown-forming species roper. Creeping Ferns like the olypodies can be multiplied by utting up the rootstocks into ieces consisting of a bunch of ots and a growing tip or two, ach of which will readily root and n time form a specimen.

Under glass the same propagat-ng measures are, of course, as racticable and advisable, and epotting should now be attended o, using only slightly larger pots, nless the plants have obviously een checked last season for want f room or are of exceptionally igorous growth, when a shift on more liberal scale is recom-ended. Too large pots for weakly lants are more likely to spell eath than success. Spores of last eason may now be sown with dvantage. C. T. DRUERY.

ROSE GARDEN.

HERBACEOUS" ROSES.

THIS sounds rather a strange term, but I daresay many readers of THE GARDEN have noticed how some varieties of Tea, Monthly nd Polyantha Roses appear to roduce such pithy wood and grow o late in the autumn that it is eally necessary when pruning to ut the shoots down to the ground-ine. I maintain that for ordinary edding Roses, in order to obtain uniformly low growth and also ree, healthy shoots, it is essential o prune hard, and I often cut my Roses quite down, so that only the stumps are visible. There is another point in connection with edding Roses, and that is their renewal every ew years. Do we desire our Roses to grow nto huge bushes, as they will do if allowed? s it not better to have younger plants to keep p the continuous growth? When the plants ecome old, their roots are coarse and vitality is ather low, and at the cheap prices bedding Roses re now obtainable it is surely worth while renew-ng the plants, or, at least in some of the beds, occa-ionally installing therein a more modern variety. As the huge output of novelties continues, many ld established sorts will be superseded, and no one who is desirous of being up to date will mind the small expense of superseding some varieties. Recently I saw a bed of Mme. Abel Chatenay, each plant a huge gawky specimen, all grand in their way, but totally unfitted for their position. To have renewed that bed with the same grand old sort would have cost the owner but a few shillings, and he would have derived far more pleasure from it. I do not say such a Rose as this will be superseded, but it is quite certain some varieties will be; for instance, Kaiserin Augusta Victoria will have to give way to Entente Cordiale (Pernet) as a bedding variety, and there are others I could name. This renewing of beds with younger and better plants is certain to be more largely adopted in the future than it has been in the past.



ROSE FRAU LILLA RAUTENSTRAUCH.

ROSE FRAU LILLA RAUTEN-STRAUCH.

THIS is a very beautiful Hybrid Tea, and would be one of our most useful did it but hold up its blooms better. The flower is really grand, of a most lovely form, with high-pointed centre, and the colour a mixture of apricot and orange, suffused with yellowish rose. Under glass the orange shading comes out very strong at times. The variety makes an excellent pot plant, as, of course, its growths and blooms can be trained erect. Possessing the Caroline Testout nature very largely, it is one of our good garden sorts, and is largely grown for massing. It was raised by Herr Peter Lambert from Caroline Testout crossed with Goldquelle, and introduced in 1903. P.

ROSE W. A. RICHARDSON WITH PALE FLOWERS.

ON page 142 "P." asks if any readers can give information as to the causes of this and other Roses coming pale in colour. I believe the whole cause of pale colour is generally due to the absence of sufficient nitrates. Your correspondent gives an instance which confirms this idea, that William Allen Richardson on a wall will often come pale in colour, while cut-backs in the open are invariably full-coloured. Few wall Roses get properly attended to, and hence those plants which from their enormous display of bloom require most feeding get the least, and show the results in anæmia or lack of colour. The cut-back in the open is under much better circumstances; it gets sufficient moisture and food. At the same time, being a cut-back, the demands on its vitality are very much less.

As an instance of what nitrates do for colour, a bucket of very strong nitrate of soda solution, which was intended to have been diluted eight or ten times, was by accident emptied round a lovely wall climber, Blairii No. 2, a large tree with 250 blooms of the loveliest pink and gold shadings, with a deeper centre. Next morning, to my astonishment, the whole of the blooms had deepened to a carmine of the most intense hue. The tree did not suffer at all.

As a general rule, I have Roses in the front of my house, which is exceptionally warm and sheltered, up till Christmas, and a few up till February. I always see that the Roses get nitrates once weekly in the shape of liquid fowl-manure. I find that if artificial fertilisers are used which are strong in one constituent and lacking in others, colour paleness results. Heavy doses of superphosphate will bring pale blooms, which may be changed in colour by adding the missing elements; in other words, a complete fertiliser. Mere poverty of soil will bring poor colour. On the other hand, extra feeding with strong animal manures, especially in solution, will invariably restore colour immediately. Early blooms often fail to come true in colour, owing to the soil not being sufficiently warm to produce the nitrification necessary.

While on the subject of fertilisers, allow me to give a remarkable instance. A three year old plant of Blush Fellenberg was far from satisfactory, although it had been heavily dressed with farm yard manure. I scooped up the soil about 9 inches deep and 6 inches from the stem; then with a fork I loosened the earth both downwards and under the Rose tree. A spadeful of farmyard manure and superphosphate of lime was then worked and chopped together and laid in the hollow The soil was replaced and two or three handfuls

of sulphate of potash sprinkled over the top. Within six weeks that Rose had grown 10 feet, throwing up enormous rods, very hard and firm, and bearing huge panicles of bloom. So successful was the experiment that I am treating all my Roses in this way. The farmyard manure prevents the powerful fertilisers from *burning* the roots.

I have top-dressed my Rose-beds with a compost of one part superphosphate, one part sulphate of potash, two of soot, two of fowl-manure and eight of horse-manure. These ingredients were mixed and chopped up together, then allowed to remain a few weeks to mellow, and afterwards were spread over the Rose-beds. It was risky, as the plants were autumn-planted; but they are making such satisfactory growth at the present time that it has evidently agreed with them. When planting my new Roses last November I had holes 3 feet deep filled with a compost of turf and manure to which heavy doses of basic slag, superphosphate and potash were added. I will report further at the end of the season. PINXIT.

[Other correspondence on this subject appears on page 182.—ED.]

TREES AND SHRUBS.

THE HARDY BROOMS.

THE Brooms, or Cytisuses, collectively form a group of shrubs of inestimable value in garden decoration, for whether the space at command be large or small, within this genus is to be found subjects suitable. Their type of beauty is familiar to all, owing to the frequent occurrence of the common Broom over large tracts of the country, and there are few railway cuttings where this pretty wilding is not in evidence. The native plant is typical of the general conditions under which the genus succeeds, and also of the freedom with which the majority flower, as even in a young state the latter characteristic is much in evidence, so that there is no protracted delay before the specimens become effective. This latter trait is one that commends itself where the garden area is limited.

By proper arrangement and grouping Brooms are capable of transforming their surroundings into beauty of the highest order; dwarf kinds are effective on banks and rock gardens, or practically any ground of an undulating nature. As edging or foreground subjects, with the taller kinds behind, they produce a display of most sumptuous character suggestive of a cataract of blossom. C. nigricans is a slender, erect Broom which flowers during July and August; the flowers are deep yellow and crowd the upper portions of the stems in a way suggestive of slender golden wands; the variety Carlieri is the one most suitable for gardens. C. purpureus forms a spreading bush, and is a good subject to hold a sandy bank together; in the variety incarnatus we have, in the flowers, what is really a lovely shade of pink.

Brooms are difficult subjects to transplant owing to the root system being sparsely developed; a few thong-like roots are all that are ever present, so that once established in the open it is never advisable to transplant. Careful selection of position is imperative in the first instance, allowing each plant sufficient space for lateral development, so that when they come to maturity they form a continuous group or mass. THOMAS SMITH.

an arrangement readily admissible in any garden. The common Broom, Cytisus scoparius, forms a welcome addition to the home grounds when massed in quantity, and should have this prominence where possible, on account of the rich deep yellow hue of the flowers. From C. scoparius comes the charming bicolor Broom, C. andreanus, with flowers in which crimson and maroon are exquisitely blended. Variations of these colours are found in hybrid Brooms of recent origin. Firefly is deepest in colour, the bronze crimson being much in excess, and when seen in a mass it produces an effect altogether unique among Brooms. In Mayfly the crimson colouring takes the form of pencilled lines, which traverse the golden ground and give the flowers a particularly bright effect, so that a group fairly sparkles with colour. Daisy Hill has the normal golden field displaced by white, which renders the flowers dull in comparison with those others.

Cytisus albus is the popular white Portugal Broom; it forms an erect bush up to 10 feet in height, with light, erect branches that in May are clothed their entire length with milk white flowers. C. præcox alba, of the same colour, is dwarfer in habit and the branches are more pendulous; it commences flowering a fortnight earlier than alba. C. præcox is a hybrid Broom, graceful in habit and refined in blossom, the colour of which is cream; it is the Broom *par excellence* for small gardens.

C. præcox lutea is a very dwarf, erect form, slow in growth and limited in distribution; the flowers are a shade lighter than those of scoparius. C. kewensis is a hybrid Broom of prostrate growth having big lemon yellow flowers; when seen in full flower on any steep bank the effect is quite



CYTISUS PRÆCOX ALBA BY THE WATER-SIDE IN A LINCOLNSHIRE GARDEN.

THE TOWN GARDEN.

SEASONABLE FLOWERS.—Despite the fact that there is no dearth of flowering plants in the garden at this time, signs are not wanting that the cold and sunless conditions experienced during the past two seasons have left their mark upon the Daffodils, and those in particular which are to some extent permanent either in the border or in grass. Others of the same tribe lifted and replanted on orthodox lines appear of greater vigour, having as a result of the lifting experienced a definite well-earned rest, to use a colloquialism, with probably a certain amount of reinvigorating in consequence of the replanting. These things have doubtless combined to produce a superior leaf-growth, the direct outcome of a plant that, having been refreshed by rest and sleep, is prepared for work again. Where deteriorating signs are apparent, the bulb groups should be marked, so that at a later date they may be given the attention they require.

COLOUR IN THE SHRUBBERY.—Only by observing what is done by the professional in large private or public gardens will the amateur be able to make the most of his little plot of town garden. Large shrubs, such as Portugal Laurels, not infrequently occupy too much space, and, apart from robbing the soil of much of its goodness, are not a little disfiguring to the garden as a whole. The best remedy for such a state of things is hard pruning; and were this taken in hand periodically, the space occupied by the sweeping branches and stems could be given over to Megaseas, Daffodils, Honesty, Dog's-tooth Violets, Primroses and the ever-quaint forms of the Lenten Rose. Nowhere perhaps is the common Primrose so much at home as when mingling with grass or sheltering shrub, save as a fringe to a woodland glade, which is, of course, "home" itself. In the garden, however, much may be done by imitating the home-life conditions of the plant—ever cool, moist, or sequestered—and, by encouraging one of the most precious of all spring flowers, render it as common as it deserves to be.

PLANTS FOR STONY OR POOR SOILS.—Just as some plants delight in rich soils and are never satisfied if such is not within their reach, so do other plants prefer soil that is stony or poor or little better than sand. Such dwarf-growing Stonecrops as Sedum acre and albidum form excellent carpets on the soil, and grow quite freely in gravelly soils or those of a sandy nature. Marigolds and dwarf Tom Thumb Nasturtiums always give of their best if sown on poor ground or such as has been left unmanured. Likewise Mignonette and, generally speaking, all the near allies of Chrysanthemum segetum, such as Eastern Star and others, prefer a poor soil, and invariably produce the greatest display of flowers when so grown. In the richer soils the same plants are apt to make big bushes at the expense of flowers; hence it is a good plan when dealing with such soils to see that they receive no manure, and that they are rendered tolerably firm about the plants.

BEDDING CALCEOLARIAS.—These may be transferred to their permanent positions in the garden at any time now, or if the positions are not ready for the plants, the latter should receive the fullest possible exposure by the removal of the frame-lights. Too frequently the amateur is guilty of one or more fatal errors in respect to these plants, chiefly, however, by planting them in hot and dry positions, where they cut so sorry a figure prior to collapsing altogether. A moderately cool position with soil of a rather stiff and holding character is much more to their liking, and in such the plants are usually content. It is important that the plants be given a thorough soaking of water some hours before planting. S. N. N.

GARDENING FOR BEGINNERS.

PRUNING THE WINTER JASMINE.

THE winter-flowering Jasmine is a native plant of China, and a most popular subject for growing on warm walls and trellises in sheltered positions. Seldom have I seen a prettier picture than that created by a well-tended plant growing over a cottage doorway or on a rustic arch. In such quarters, when the aspect is warm and sheltered, it is one of the best and showiest of winter-blooming plants. It is regarded by many as an indispensable shrub for all gardens, and deservedly so; for although the plant does so well in the warmer aspects, it may be utilised quite successfully for covering walls having an eastern or northern aspect. The leafless shoots are wreathed with dainty yellow blossoms during the winter season, and when the plant is in full blossom in midwinter it is indeed "a thing of beauty." Very pretty effects are sometimes obtained by planting the Winter Jasmine where its twiggy growths may ramble among a background of Ivy or some other evergreen subject, the golden yellow blossoms being seen to distinct advantage in this way.



1.—BRANCH OF WINTER-FLOWERING JASMINE BEFORE PRUNING.

It is astonishing how little is known by many regarding the treatment the winter-flowering Jasmine should receive. There are to be found beginners who have cut about their plants in a most rude manner. Especially is this to be seen in and around the neighbourhood of large towns, where so many are disposed to use the garden shears too freely and, in the case of this subject, quite unnecessarily. Crude notions prevail, otherwise one would not meet with promising specimens cut back into unshapely plants, and the promise of a display in the succeeding season absolutely spoiled thereby. The growth of the Jasmine is elegant and graceful; but when the shears are used, the natural beauty of the plant is spoiled, and the shoots which should produce blossoms in the following winter season are cut away in the operation.

The pruning of the winter-flowering Jasmine is a comparatively simple operation, and it is quite unnecessary to mutilate the growths, as so many inexperienced persons are too prone to do when carrying the pruning into effect. In Fig. 1 is represented a specimen branch of the subject under notice. A careful scrutiny of the details will reveal a number of seared, useless shoots that yielded blossoms during last winter. These are of no value for providing flowers next season. It is customary to thin out or prune the plants after the flowering season is over—that is to say, during April—and the earlier this work is done the better. The pruning of Jasminum nudiflorum is done by cutting away the shoots or growths that have blossomed, leaving the green young growths to form flowering shoots for next season's display. Any weak and attenuated shoots are better cut out, thus concentrating all the energies of the roots on the better shoots that are retained. A careful comparison should be made between the branch represented in Fig. 1 and that portrayed in Fig. 2. The latter shows the same specimen after the pruning has been done. It is quite an easy matter to distinguish old from new growths; the former are brown-looking and seared, and the latter are quite fresh and green. For this reason the beginner can hardly make a mistake when trying to determine which growths to cut away. In the second picture a considerable number of old shoots have been cut out, leaving the branch in a fit and proper condition to fulfil its obligations in the next flowering season. Immediately subsequent to the pruning tie in the growths and make them quite secure for another year.

D. B. CRANE.



2.—THE SAME BRANCH AFTER PRUNING.

HOW TO TREAT UNHEALTHY POT PLANTS.

I AM sure there are many plants destroyed every year that might be saved if they were properly treated when they had got into an unhealthy condition. Of course, it is best to avoid having any unhealthy plants; but in spite of every effort on the part of the cultivator some plants become unsatisfactory. At other times plants are damaged through carelessness in watering. Immediately after a batch of plants has been repotted it will be noticed that some of them grow rapidly, while others do not make any progress. Usually, the latter are suffering through defective root action, and if water is given to them in as great a quantity as to the other freely-growing plants they will soon die. Now, it is good policy to pick out all such sickly-looking plants, put them together in some convenient place and nurse them back to good health. Allow the soil to get fairly dry before giving more water. When a branch of a plant is diseased, the affected portion must be cut away, and also a small part of the sound branch with it. Insect-infected plants must be isolated for a time and thoroughly cleansed. Some plants may be sickly through overpotting; in such cases a reduction of the balls of soil and repotting in smaller pots for a time will prove beneficial.

SHAMROCK.

THE FRUIT GARDEN.

MULCHING AND MANURING FRUIT TREES.

FOR the benefit of amateurs it may be well to explain the meaning of, and the reasons for, mulching. To mulch a tree or bush is to place a layer of decayed or strawy manure round the stem and as far from it as the roots extend, a good guide being as far as the spread of the branches. A mulch may be applied for three reasons, viz., to conserve moisture in the soil, to furnish the tree with food or to protect the roots from frost and, in the case of the Strawberry, to prevent the fruits being soiled. It is seldom that a mulch is needed for the protection of hardy fruits, except when severe frost sets in directly the trees or bushes have been planted. When used for this purpose, the mulching material should be as dry and strawy as possible. The principal use of a mulch in fruit culture is to conserve moisture in the soil in the case of newly-planted trees, and most beginners make the mistake of applying it directly the trees have been planted. Its effect then in the spring is to keep the soil cold. For the purpose named there is no necessity whatever to mulch trees until the middle or the end of May, by which time the soil will have become nicely warmed. For this mulching, and also for providing the trees with nourishment, well-decayed, short manure should be employed. Where a mulching is given solely for the purpose of providing nourishment, it may be applied during the winter or spring months, as such nourishment is only required by established trees, and no harm will be done by keeping the soil wherein such are growing somewhat cold. Where a stimulant is required during active growth, of course a mulch could be put on and then freely watered; but, generally speaking, winter is the most convenient and suitable time to do the work where the application of food is the object.

During recent years much attention has been given to artificial manures for fruit trees and bushes, and, given a judicious combination, a mixture of such manures will prove highly beneficial. Naturally, the condition of the tree or trees and the purpose for which the manure is to be used must be taken into consideration. Thus, if a tree is growing vigorously, it would not require nitrogen, the effect of which is to produce strong shoots; on the other hand, an old or stunted tree might derive considerable benefit from nitrogenous manures. For fruit production a phosphatic manure is always safe and good, and potash in some form or other is always suitable. A good general artificial manure for fruit trees and bushes is one composed of superphosphate, 8lb., and kainit, 4lb., this being applied in February or March at the rate of 1lb. to the square yard from the stem of the tree outwards as far as the branches extend. In the case of heavy soils or, indeed, any that are deficient in lime, a cheap and valuable manure for fruit trees is basic slag, a phosphatic manure that contains a large quantity of lime. It should be applied in a finely-ground state, at the rate of 6oz. to the square yard, not later in the autumn than November, as it is slow in action. Where a tree requires nitrogen owing to its weak growth, the mixture of superphosphate and kainit mentioned above may be supplemented with nitrate of soda or sulphate of ammonia, adding 2lb. of either to the quantity given above. Steamed bone-meal, used only in the winter at the rate of three-quarters of a pound to the square yard, is a valuable, slow-acting phosphatic manure for all kinds of fruit. All the manures mentioned above must be applied in a finely-crushed state, and should be lightly hoed into the surface.

It sometimes happens that an old fruit tree has to be retained for some reason or other, and where such is the case, steps ought to be taken to induce it to bear crops of good fruits. That such a task is not impossible is testified by numerous examples throughout the country. One of the best and easiest methods of inducing renewed vigour in an old tree is during the winter to make a number of holes in the soil about its roots with a crowbar or similar implement, and keep these filled up with liquid manure. This will not, as one might suppose, be wasted, but will leave in the soil much valuable food in a state suitable for the tree to make use of in the spring. If the soil can be removed to a depth of 6 inches or 9 inches from the stem outwards as far as the branches extend, and be replaced with good loam and well-decayed manure, this will also add new life to the tree and induce it to produce first-class fruit. Failing the natural manure, the following mixture may be given at the rate of 4oz. to the square yard in January or February: Superphosphate, 6lb.; nitrate of potash, 5lb.; sulphate of lime, 2lb.; nitrate of soda, 1½lb.; and sulphate of iron, ½lb. This is also excellent for trees affected with canker.

DAFFODIL NOTES.

DAFFODILS AT VINCENT SQUARE, APRIL 11.

THREE silver-gilt Flora medals at one show means that there were three fine collections staged. Even with the appalling weather that has been general in the British Isles for the last two weeks, Daffodils were shown in very much better form than might have been expected. It says much for them, and it should add considerably to their popularity for general culture, that they turned out as they did. Buds had been opened in water and coverings resorted to in some cases, but probably not very much more than is usually the case in preparing blooms for the trying ordeal of an exhibition.

It was very pleasing to see Messrs. Barr and Sons once more gaining an award equal to the best given. They had a large and varied group. In the centre, on an Eau de Nil background, were many beautiful new seedlings and good examples of such sorts as Empire, one of the very best giant Leedsiis in commerce, large, of fine form and of excellent constitution. I happened to see some lovely examples in one of the wooden boxes which we Daffodil people generally associate with something "extra extra," and the owner almost apologised for having them. His daughter had sent them with this message, "I have sent you the flowers, father, but I am sorry to part with them." It is a variety that anyone would hate parting with, even if he got the eighteen guineas that I see this firm charge. Its measurements are: Perianth, 4¼ inches wide; cup, 1¼ inches long and 1½ inches across at the brim. Bedouin, with its splendid perianth and fine red cup, was another good thing. Then there was Venus, a big Leedsii of beautiful texture, which has forced itself upon me very much this season. It is not so large as some others, but it has refinement and pose. Size: Perianth, 3⅝ inches across; cup, 1¼ inches long and 1 inch wide. In other parts of the display I noticed as good Fair Maiden, a lovely flower, almost between a Leedsii and an incomparabilis, with a pale yellow, edged pale orange, eye; Diana, Sunrise, Amazon, Plenipo (a good new double), Cœur de Lion and Hamlet.

Another exhibit that I was surprised and glad to see was that of Messrs. W. B. Hartland and Sons of Cork. The old veteran who is the head of the firm has profited by his visit to Birmingham last year, and it is obvious he has acquired some of the best novelties, such as Bedouin, Uncle Robert, Bernardino, Pedastal (a good bicolor incomparabilis) and Mrs. Robert Sydenham. I was, however, more interested in his home-made ones, and I consider William Baylor Hartland (a large early bicolor Ajax) an excellent flower. King of the Poets (perianth, 3½ inches; eye, five-eighths of an inch) appealed to me very much. I know a market-man who swears by Poeticus præcox. This is a much glorified edition of it, and is bound to have a cut-flower future. Corona Hibernica is an incomparabilis with a glorious deep red cup; and Lorna Doone, with a curiously long trumpet of slender proportions and a hooded perianth, is a distinct deep yellow Magni, of which its raiser is very proud.

Miss Currey from Lismore had a very beautiful display. In the centre was her newly-bought Crœsus. It is a magnificent example of a large red-cupped Medio, with a large primrose overlapping perianth, and is a *very* striking flower. I hear the raiser said when he parted with his stock, "Here, I have given you something to work upon." A similar flower, but smaller, was Duke of Leinster. The red here was not quite so deep a shade as in Crœsus, but it was more solid. Then there were three flowers of the exquisite deep yellow trumpet Michael, fine examples of White Queen, Bernardino, Mrs. Robert Sydenham and Venus, a rather small bloom of the deep-dyed Jaspar, and a vase of the giant Great Warley.

I will finish the Irish exhibits by referring to Lissadell. Sir Josslyn's work among his flowers is now beginning to bear much fruit. There were a fine lot of seedlings in the collection. I thought one marked 238*a* very beautiful, and was—what is now getting very difficult to attain—unique in colouring. It is a big Medio, with a stiff, overlapping, right-angled, pale primrose perianth and a nice-sized cup of a slightly darker shade. Size: Perianth, 4 inches across; cup, 1 inch long by 1 inch wide at brim. 217—05 was a large incomparabilis, which, had it been for sale, would have been bought by a no mean judge. A flower 4⅜ inches across and with a cup 1¼ inches deep by 1⅛ inches wide is no mean thing as far as size goes, and its soft yellow colouring was good. Among named kinds there were the pale bicolor trumpet Selina Malone, Acme (the beautiful red-eyed Poet), Incognita (the flower of Lissadell *par excellence*), Horace, Albatross and Lady Margaret Boscawen. These were all good specimens of their respective varieties.

Robert Sydenham, Limited, have lately been to Cornwall, and one scalp that they got there was a very effective giant flat cup well named Orange Gem (perianth, 3¾ inches; cup, 1⅜ inches across). It has a pale primrose perianth, and a deep edge of orange red round its yellow cup. Golden Gem was a grand deep yellow Magni, with a sturdy, stiff trumpet; and Orange Baffer was a good specimen of the early type of incomparabilis seedlings. Apricot Queen, Apricot Gem and Solfatarre (that marvellous laster in pots) were in evidence.

Mr. Herbert Chapman of Rye had a small but select little lot. His own seedling, South Saxon, was very taking, and was soon snapped up by a large grower who knows a good thing when he sees it. Two bulbs planted two years produced twelve flowers—not bad. It is an incomparabilis of the soft orange and yellow cupped type. His bunches of Torch and Blackwell were full of colour. His Sonata showed his taste in Poets. It is a clean-looking flower, if ever there was one, and the large greeny yellow edge, with its distinct margin of red, was well set off by its graceful white perianth.

hite Slave, Golden Dustman (Magni), Chough rge red eye) and Biarritz (Poet) were other good ings.

Messrs. Cartwright and Goodwin had a smaller than usual, but it was staged with their usual ste. Space forbids me to do more than mention rds and Whey (a new type of double), Ailsa extra good white Ajax), Matthew Arnold (a st shapely Poet), Heroine, Much-the-Miller agni) and Chloe.

I have run on so long that I must crave a little ace next week to refer to Mr. Wilson's, which was a ry fine exhibit of new things. JOSEPH JACOB.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY, APRIL 11.

LTONIA BLEUANA PEETERSIÆ.—There appeared be some doubt about the parentage of s variety. The flowers are of normal size, colour being a soft pink on a white ground. first sight there is nothing very striking about variety, but it is remarkable in that the colour, ich is usually so noticeable on the lip of the wer, is in this instance seen on the upper petal, t being so apparent on the lip. Shown by F. mbeau, Esq., Brussels. First-class certificate.

Odontoglossum Ossulstonii The Shrubbery.—This s generally considered to be the finest Odontoossum in the exhibition. The flowers are heavily otched with deep chocolate maroon, so that the ite ground is practically covered over. The plant own carried sixteen flowers on a very vigorous ke. A magnificent variety shown in grand dition by Messrs. Charlesworth and Co., Hayrd's Heath. First-class certificate.

Odontioda rosefieldiensis.—A beautiful hybrid own by de Barri Crawshay, Esq., Rosefield, venoaks, the well-known specialist in Odontiodas. e flowers are small and of a brilliant orange rlet. The plant exhibited carried eleven wers on a spike. Parentage: Cochlioda noetzli- × Odontoglossum triumphans. Award of rit.

Nephrolepis Marshallii compacta.—This handne and densely-plumose Fern has already received award of merit, and was on this occasion the ipient of a first-class certificate. From Messrs. B. May and Sons, Edmonton.

Oncoba spinosa Routledgei.—Undoubtedly the atest novelty of the meeting, and a plant of ch beauty and distinction. It is an evergreen pical or sub-tropical shrub of diffuse branching it, and strongly armed with spines on the ler sides of the branches. The plant is obviously free growth and profuse rather than abundant vering. The snowy white petals are of firm ture, and rendered conspicuous by a large tuft golden-coloured anthers. The flowers are of size and character of Eucryphia or Carpenteria, of greater purity and beauty. Exhibited by Charles E. Shea, Foots Cray, Kent. First-ss certificate.

Auricula Mrs. Gardiner.—A fancy variety with e lilac flowers of good form.

Auricula Mrs. Harry Veitch.—The border ouring is old rose of an exceptional shade, the tral meal being well defined and heavy. These ne from Mr. J. Douglas, Great Bookham, and h received an award of merit.

Pelargonium Maxim Kovalesky.—A new variety the Zonal bedding type, in which the orange milion shade so rarely seen in these flowers been attained. It is quite an acquisition. m Messrs. H. Cannell and Sons, Swanley, ard of merit.

Rose Marcella (H.T.).—A flower of giant protions, with some pretensions to a good forcing variety. The depth of the flower is very remarkable. The colour is of the palest pink or flesh, tinted with white. From Messrs. William Paul and Son, Waltham Cross. Award of merit.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Tenby Daffodil (*R. H. W.*)—The proper name of the Tenby Daffodil is Narcissus Pseudonarcissus var. obvallaris. It used to be called Sibthorp's Daffodil (Sweet, "Hortus Britannicus," page 683, third edition, 1839). The variety lobularis seems to have been wrongly called Tenby; but the reason probably was that Haworth either found or had sent to him a form from Tenby which he called lobularis. This, of course, is very different indeed from obvallaris, and more nearly resembles the ordinary single wild Daffodil of English meadows, of which cambricus and scoticus are probably sub-varieties. A flower which is generally taken to be Tenby or obvallaris is figured in the *Botanical Magazine*, plate 1301, and the habitat given, as suggested, is Spain. Sweet, as above, gives the South of Europe. Beyond this, we do not think anything is known, except that it is probably a wild form and not a garden form. We think your reference to a wreck suggests that you are mixing up the Tenby Daffodil with the Guernsey Lily (Nerine sarniensis), which, according to the tale, was cast up from a Dutch or English ship coming from Japan before or about the year 1659. It was cultivated at Wimbledon in 1659, having already been flowered in Paris in the garden of one Johannes Morinus in 1634.

Pale mauve Viola (*K. R.*).—Maggie Mott is the more free-flowering of the two sorts you mention, although they are both very good and there is little to choose between them in regard to habit and constitution. There is more colour in the flowers of the first-named.

Sweet Peas facing north (*W. R.*).—Unfortunately, you do not give the slightest idea how many varieties you wish to grow; neither do you say whether you have any particular fancy in regard to colours. Six distinct are named, which will give you a length of 5 yards of each. Dorothy Eckford (white), Lady Grizel Hamilton (lavender), King Edward VII. (crimson), Mrs. Collier (primrose). Countess Spencer (pink) and Lord Nelson (blue).

THE GREENHOUSE.

Hyacinths (*Ascot*).—The failing in these plants to which you refer may be due to a variety of causes, though primarily to imperfectly-matured bulbs owing to wet, cold and sunless seasons, to the inadequate root formation, and to the too early introduction into artificial heat in conjunction with the untimely exposure to light of the upper part of the plant. Given pot cultivation, the Hyacinth should be grown in darkness or semi-darkness with moisture until the leaf-growth is considerably advanced. In the open ground the crown of the plant is exposed to the light and subjected to the changes of heat and cold. To expose these plants too early to light and air, and also to bring them at too early a date into the greenhouse, are to court failure in greater or less degree.

Tulip bulbs for inspection (*E. W.*).—The Tulip bulbs are perfectly healthy. Their failure to properly develop flowers must be attributed to some check during growth. Possibly they were allowed to become dry at some time after placing them in the greenhouse.

Epiphyllum for inspection (*Cactus*).—There is no doubt that the cause of your Epiphyllums going off in the manner described is an excess of moisture at the roots combined with a rather too low temperature. Epiphyllums need to be watered with moderate freedom during the summer months when they are making their growth, but in autumn and winter they should be kept on the dry side. As Epiphyllums are natives of Brazil, it is evident that a winter temperature of 50° to 60° will be more to their liking than a lower one.

Hyacinths with superabundant leafage (*J. A.*).—This is usually caused by arranging the plants late in the season at too great a distance from the light, whether grown in cottage or greenhouse. The closer these plants, and indeed all others, are in touch with direct light, the dwarfer will be the habit of growth. Removed from the direct influence of light by distance or other causes, *e.g.*, shade, the foliage, naturally inclining to the light, one of Nature's greatest stimulants in the vegetable world, becomes drawn and overgrows the flower-spike. Precisely the same thing would happen were the plants grown amid a crowd of other things which partially excluded the light. In arranging the plants nearer the glass, however, you must not overlook their moisture-loving proclivities, which are so essential to success.

FRUIT GARDEN.

Peach trees in bloom (*Constant Reader*).—If your trees are in a healthy condition and the blossom strong, they will set their fruit all right without any artificial aid; but if the blossom is weak and the pollen scanty, you should resort to artificial fertilisation. The best way of doing this we have found is to tie a rabbit's tail to a short stick, drawing it gently over the blooms, thus helping to distribute the pollen over the flowers. This should be done once a day at midday when the weather is fine and the pollen dry. If you have bees in the garden, you would do well to place a hive near the trees. The bees are the best help to a good setting. While the weather remains cold it would be well not to syringe the trees too frequently; but on bright, dry days it will do them good to syringe them in the afternoon about 3.30. This will give the foliage time to dry before night. Do not syringe until the fruit is well set.

Apple trees diseased (*A. D.*).—The Apple shoots are attacked by the ordinary canker fungus. Diseased parts should be cut out and burned, and the wounds painted over with lead paint or tar. The trees seem to be badly covered with lichens, and should be sprayed next winter with an alkali wash (2lb. caustic soda and ¾lb. treacle to 10 gallons of water).

Morello Cherries on north wall not fruiting (*W. P.*).—We have never known the Morello Cherry to fail to produce heavy crops annually when planted and grown under fair conditions, even in cold localities. If you do not get a crop this year, we advise you to take a drastic step, namely, lift the trees and replant in new sweet loam, providing, of course, good drainage. Do not plant too deeply. Plant the first week in November.

Fig trees dropping their fruit (*D. J. B. K.*).—It is a common failing of the Fig tree to drop the fruit of its first crop. This may be due to various causes, but the primary cause, in our opinion, is the unripened condition of the shoots of the tree grown the previous year. It is on these shoots that the first crop is borne, and if these shoots have not been properly developed and ripened the summer and autumn before, it follows that the fruit-buds, which form a part of the shoots, are also imperfectly developed and ripened, and therefore cannot fructify. The grower should take care that the young shoots, the growth of *this year*, are not thickly crowded on his trees during summer and autumn; rather let each shoot be exposed to as much light, heat and air (in moderation) as possible.

KITCHEN GARDEN.

Large French Asparagus (*O. G. R.*).—It is comparatively easy to grow Asparagus of the same size and quality as the French in this country, and that without forcing. In the first place, it is a question of deep, rich, well-drained soil of a light texture and warm nature. Secondly, it means intensive culture; that is to say, deep

trenching and heavy manuring with rich, well-decayed farmyard manure. Again, it means that the roots must be planted wide apart in single plants in rows 4 feet apart, and the same distance between plant and plant in the row. Asparagus roots planted thus far apart in rich soil attain an immense size in the course of a few years, and will give giant Asparagus for many years if annual generous culture is given to them. They should be grown in a sheltered position, if possible, as the grass of such giant roots grows to a great height during the summer and is blown about by high winds, causing injury if not protected or staked. Within the next week or ten days is a good time to plant. The Argenteuil (named after a town of that name near Paris) is the sort most favoured by French growers, and is excellent in every way; so also is Connover's Colossal. One year old roots are the best to plant. If too late for you to start this year, sow seed now ready for planting out next year.

Making a hot-bed for Cucumbers (*S. G.*).—By the time your half-hardy plants are turned out from your brick pit, most of the heat of the hot-bed will be exhausted, and the best thing for you to do will be to clear it all out and dig it into the land, as it should be fairly rotten by then, refilling the pit with fresh stable litter and leaves in equal quantities, mixing them well and treading them down hard. Fill to within 10 inches of the glass, as it will sink a little. Plunge a thermometer into the bed, and you will find the temperature of the manure will probably rise from 80° to 90° Fahr. As soon as the heat drops below 80° add the soil. This should be composed of fibrous loam, say, a peck (which has been stacked for some time), half a peck of leaf-mould and half a peck of old Mushroom-bed manure, well mixed together. Make this into a heap in the middle of the pit, put a thermometer inside the heap, and as soon as the heat drops to 67° Fahr. it is time to plant your Cucumbers. One plant will be enough for a pit 4 feet by 5 feet. Shade the plant for a week after planting. Give a little air on sunny days until 3.30 p.m., when the air should be taken off and the plants syringed with tepid water. The pit should be covered at night to prevent the heat falling too low. Give air in the morning as the heat rises to 67° in the pit. As the plant grows add a little more soil to the roots, see to the stopping of the side growths, and thin out useless shoots to prevent overcrowding.

MISCELLANEOUS.

Weed destroyer for a pond (*A. G.*).—To kill the weed in your pond, use copper sulphate at the rate of 2½oz. to 10,000 gallons of water. The copper sulphate may either be mixed in a little water and be syringed over the surface of the pond or be tied in a canvas bag and drawn through the water until dissolved. It is probable that several applications will be required during the summer.

The National Hardy Plant Society (*Miss M.*).—The secretary of the National Hardy Plant Society is Mr. F. Bouskell, Market Bosworth. If you will write to him, he will be pleased to send you all particulars.

Pruning climbing Roses (*S. C.*).—As the plants were not pruned at all last year, your best plan will be to spread out the main growths as much as possible in order to induce the lower eyes to start. Maréchal Niel has, doubtless, rather stiff stems; but perhaps you can bend them outward, a little out of the perpendicular, even in a zigzag form. This would be advisable, and much better than severe pruning. After the plant has made plenty of new shoots, you can proceed to shorten them back a little; but this will not be until next year. Roses such as Dorothy Perkins should be spread out as far as possible, and any small shoots they make springing out from the main growths should be cut back to 1 inch or 2 inches from their base. Good farmyard manure dug into the borders would help the Roses very much; or, if this is not available, you would find several good manures advertised in the columns of THE GARDEN.

Names of plants.—*Mrs. B.*—The names of the Daffodils sent are: Yellow, Autocrat; red cup, Cynosure.——*J. Dolphin.*—1, Chlorophytum elatum variegatum; 2, Sedum sarmentosum variegatum; 3, specimen too scrappy; 4, Fumaria bulbosa; 5, Forsythia viridissima.——*Winton.*—1,—Arabis muralis rosea; 2, A. Billardieri.——*F. W. S., Roeheath.*—Mackaya bella.

THE EDITOR'S TABLE.

FREESIAS FROM HOLLAND.

Mr. C. G. van Tubergen, jun., Haarlem, sends us some exquisite flowers of his varieties of Freesia Tubergenii. The colour of some of these is really wonderful, and calls for the highest praise. The one that appealed to us most was named Charmante. The colour of this is almost indescribable, but was made up of old rose, carmine, pale and deep golden yellow, and orange. Contrast is almost white, with rich orange markings; and Le Phare is bright rose. We hope to publish a coloured plate of some of these new Freesias in July next. In addition to the beautiful range of colours, they are as fragrant as the old F. refracta.

NURSERY NOTES.

GREENHOUSE PRIMULAS AT FOREST HILL NURSERIES.

At a time when greenhouse Primulas were at their best—that is to say, about two months ago—it was our good fortune to pay a visit to the nurseries of Messrs. James Carter and Co. As everyone must know, this world-renowned firm, so long associated with High Holborn, now has its head-quarters at Raynes Park. But it was not to these nurseries that our visit was made, for the Primulas are still grown at the branch nursery at Forest Hill, not far removed from the Crystal Palace.

Two sections of Primulas are grown here—the chinensis, which is the more widely cultivated, and the stellata, with plain-edged and smaller flowers, not covering so wide a range of colour as the former. The flowers of the chinensis group are produced, as a rule, in one whorl only, whereas those of the stellata section are carried tier upon tier in three or four whorls.

There was one variety of the chinensis group which seemed to attract our attention perhaps more than any other, its name Princess May, a vigorous grower, with lovely soft pink flowers, already a great favourite in many gardens. It rightly belongs to what is known as the giant type, and we measured some flowers which were 2¾ inches across, so large that a five-shilling piece was quite lost inside the rim of the corolla when placed flat against the petals. Other varieties of the same type are King Edward (massive white flowers) and Holborn Coral. This is indeed a grand trio. The variety King Edward possesses an additional charm in its very handsome and deeply-cut foliage. We also observed an improved King Edward having dark foliage and beautifully white fringed flowers, the striking contrast in colour between the flowers and foliage being quite remarkable.

The Fern-leaved and Parsley-leaved Primulas, although novel, have been grown in these nurseries for many years, and their origin must date back a long time. There is, however, quite a new departure in the form of the Oak-leaved Primula, which occurred as a sport in these nurseries.

Double-flowering varieties are grown in endless shades of colour, all of them with fimbriated petals; there are no plain-edged double varieties. Perhaps the finest of them is Prince of Wales, coral pink, very free-flowering. Lilac Queen, Carmine Empress and Daybreak (terra-cotta) are likewise famous for their profusion of flowers. It should here be noted that the double varieties come quite as true from seed as the singles. At Forest Hill the stocks of all varieties are selected with the utmost care, and both the chinensis and stellata sections can be relied upon to come true to name. Now is the time to sow the seeds, and given cool greenhouse treatment a grand display can be reasonably anticipated in the early months of next year.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly exhibition of the Royal Horticultural Society was held at Vincent Square, Westminster, on April 11. Once again the Royal Horticultural Hall was filled throughout with exhibits of good quality. There were many groups of Narcissi, alpine plants in little rockeries, while early-flowering shrubs, such as Rhododendrons, Wistarias, Hydrangeas and Prunuses were shown in profusion.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), and Messrs. W. Bates, A. Dean, E. Beckett, W. Pope, A. R. Allan, W. E. Humphreys, G. Reynolds, J. Jaques, G. Wythes, J. Harrison, Owen Thomas, H. S. Rivers, C. G. A. Nix, J. Vert and J. Cheal.

Messrs. Sutton and Sons were represented by a choice collection of salads and early vegetables, gaining a silver-gilt Knightian medal. The best of the salads were Batavian Endive, Radish Forcing French Breakfast, Cucumber Sutton's Market and Chicory. Early Peas shown in this collection were greatly admired. The two following varieties were shown: Empress of India and Sutton's Early Giant. Mushroom Sutton's Twentieth Century, Broccoli Snow White, Lettuce Early Paris, Seakale Purple, and Rhubarb The Sutton in good colour completed this admirable collection.

ORCHID COMMITTEE.

Present: Gurney Fowler, Esq. (chairman), Sir Jeremiah Colman, Bart., and Messrs. J. O'Brien, H. J. Veitch, F. J. Hanbury, F. Menteith Ogilvie, R. G. Thwaites, T. Armstrong, A. McBean, W. Cobb, J. Charlesworth, J. Cypher, J. E. Shill, W. P. Bound, W. H. Hatcher, A. Dye, H. G. Alexander, W. H. White, J. Moss, F. Sander, Gurney Wilson, W. Bolton, F. Peters, de B. Crawshay, C. Cookson and S. H. Low.

Messrs. Sander and Sons, St. Albans, had an exhibit of Cattleyas, Odontoglossums, Cypripediums and other Orchids in season, such as Masdevallias, Scuticaria Hadwenii and Gongora quinquenervis. The last-named is a very curious plant, popularly known as the Punch and Judy Orchid, from the supposed likeness of the individual flowers to those celebrities. Silver-gilt medal.

Messrs. Charlesworth and Co., Hayward's Heath, again staged a highly creditable display, comprising Miltonia vexillaria, Cypripedium caudatum, Dendrobium infundibulum (a large white-flowering species with yellow-throated flowers), Phaius Norman, and both Oncidiums and Odontoglossums in variety. Silver-gilt medal.

Messrs. Mansell and Hatcher, Limited, Rawdon, Yorkshire, had a fine lot of Odontoglossums, including O. amabile, O. Illustrissimum, O. Rolfeæ, O. Dora and O. Solon. Cattleyas and Lælio-Cattleyas were included in this exhibit. Silver Flora medal.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, had a bright display of Brasso-Cattleyas and Lælio-Cattleyas, with Oncidiums, Dendrobiums and Odontoglossums in the background. There were plants of botanical interest in this group, notably Masdevallia radiosa, M. Chimæra, Cirrhopetalum picturatum and Megaclinium velutinum. Silver Flora medal.

Samuel Larkin, Esq., Ridgeway, Haslemere, Surrey (gardener, Mr. G. Hale), sent a very good collection, in which Miltonias lent a bright and attractive colour. The plants were well grown, but, unfortunately, they were not staged to the best advantage. Silver Banksian medal.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, had a small group of choice flowers. Among them Brasso-Cattleya langleyense was very prominent. Many Dendrobiums were included in this group. Silver Flora medal.

Sir Jeremiah Colman, Bart., Gatton Park, Surrey (gardener, Mr. J. Collier), sent a beautiful collection, including the brilliant golden yellow Dendrobium brymerianum Gatton Park variety, Phaius Norman and Odontoglossum Queen of Gatton. Silver Flora medal.

Messrs. McBean, Cooksbridge, Sussex, had a capital lot of Odontoglossums and Cattleyas. The uncommon pure white Dendrobium Deari was shown in this group. Silver Banksian medal.

Messrs. W. B. Hartland and Sons, Ard-Cairn, Ballintemple, County Cork, had a showy collection of about a hundred flowering plants of Cattleya Schröderæ. Cymbidiums and Cypripediums were included in this group. Silver Flora medal.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE DECORATIVE VALUE OF FRUIT TREES.

At this season, when we are revelling in the pageant of blossom that so beautifully transforms our ordinary kinds of fruit trees, it is opportune to draw attention to their decorative value in garden, orchard and woodland, a phase of their life-cycle that a few writers, more venturesome than others, have occasionally drawn attenton to. There is no more beautiful sight during the spring months than that of a Plum, Cherry or Apple orchard in full blossom, carpeted, maybe, with an undulating sea of golden Daffodils. Notwithstanding this, it is seldom that we find fruit trees given a place among other shrubs or trees in what may be termed the ornamental parts of the garden or woodland.

We have heard it expressed, as an argument against using fruit trees in this way, that an Apple, Plum, Pear or Cherry tree is dull and uninteresting except when arrayed in its floral robes, or possibly when bearing a burden of fruit; but even if this is so, the same may be said of many of those flowering shrubs which are so carefully tended and which are frequently given the best positions in the shrubbery. We know of nothing more appropriate to an old-world garden than the gnarled trees of Apple, Pear or Plum that may often be found in close proximity to a house of ancient days; yet quite recently we have seen several such gardens where the old fruit trees have been ruthlessly uprooted to make room for more modern, and what are regarded by many as more choice, shrubs or trees, kinds that even when established have nothing in common with their surroundings. On the other hand, there are in many gardens a number of old espalier and other types of fruit trees which, though of little value for producing crops of fruit, are carefully preserved by their owners for the sake of the beautiful blossom that they produce so freely and with almost unfailing regularity each spring. It is quite probable that our forefathers, when planting fruit trees close by the dwelling-house, did so purely for utilitarian purposes; but the artistic effect derived from their efforts ought not to be lost sight of in an age of rush and hurry, and where possible a few at least of our common fruits might find a place in the shrubbery. With so many Apples and Pears grafted on dwarfing stocks, the material available for such purpose is now large and varied, and a few Apples or Pears grafted on such stocks and planted in a shrubbery and allowed to grow free and naturally, would add distinctiveness and charm to their surroundings at this season.

As specimen trees for lawns, Cherries, Apples and Plums are far superior in many positions to the heavy Araucarias, Pines or Cedars which too often monopolise the best situations. Apart from their beauty at flowering-time, the Apples, providing brilliant-fruited varieties such as Fearn's Pippin are chosen, will give a vivid display in autumn, when rich colours are in harmony with the softer tones of russet and gold. Their bare branches in winter may be objected to by some, but by others this would be regarded as a very slight discount to the artistic effects of spring and autumn.

Again, in small gardens, where space is naturally limited, amateurs might well combine utility with beauty. Instead of planting masses of heavy Laurels, Aucubas, Yews and other depressing shrubs, why not have a judicious arrangement of fruit trees? To group these artistically would not, in many instances, be a difficult task, and if allowed to grow freely they would create a far more beautiful picture than we usually see in gardens of limited area. It is true that the fruit from trees allowed to grow in this way could not be expected to be of the highest quality, yet it would be far superior to much that is sold in our shops and markets, and sufficiently good and nutritious to find a welcome in the home.

The Almond and Peach are both planted extensively in many gardens now for the sake of their flowers, and it is for a similar appreciation of the beauty of Apples, Pears, Plums and Cherries that we would plead. It would, of course, be a mistake to plant large quantities of these fruit trees in the decorative garden, the character of which would be changed thereby; but the judicious inclusion of a few would, we feel sure, be appreciated by those who so freely admire the orchards and fruit gardens at this season.

The subject is, of course, a debatable one, and possibly such use of fruit trees will be objected to by many. So much must depend upon individual taste and the existing surroundings, but providing these are in harmony the decorative character of our fruit trees may be utilised with good effect.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 1.—Mansfield Horticultural Society's Meeting.

May 2.—Perpetual Flowering Carnation Society's Show in the Royal Botanic Gardens, Regent's Park (two days). Scottish Horticultural Association's Meeting.

May 3.—National Auricula and Primula Society's Show (Midland Section) at Birmingham Botanic Gardens (two days).

May 4.—Linnean Society's Meeting, 8 p.m.

May 6.—French Horticultural Society's Meeting.

May 8.—United Horticultural Benefit and Provident Institution's Committee Meeting.

May 9.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at three o'clock by M. H. Correvon on "Alpine Gardens," illustrated by lantern slides.

May 10.—East Anglian Horticultural Society's Meeting.

May 11.—British Gardeners' Association's Annual Meeting of London Branch.

Royal Gardeners' Orphan Fund.—The twenty-third annual dinner of the above fund will be held at the Hotel Cecil, Strand, London, W.C., on Thursday, May 4, at 6.30 for 7 p.m. Nathaniel N. Sherwood, Esq., will preside.

Royal Counties Agricultural Society. A horticultural exhibition is to be added to the attractions of the society's show to be held at Weymouth in June next. Mr. C. S. Fuidge of 7, Silverdale Road, Southampton, has been appointed superintendent of the horticultural section, from whom all particulars may be obtained.

Perpetual Flowering Carnation Society.—This society will hold its spring show in the Royal Botanic Gardens, Regent's Park, London, N.W., on Tuesday, May 2. Although the society is still in its comparative infancy, it is making exceptional progress, and the forthcoming show is looked forward to with keen interest by Carnation-growers.

The "Kew Bulletin."—In the current issue of the *Kew Bulletin* there appears an interesting contribution from Mr. T. A. Sprague on Saxifraga lingulata and S. lantoscana. Some horticulturists claim specific status for the latter, while others prefer to treat it as a variety of S. lingulata. The writer comes to the conclusion that, owing to the large number of intermediate forms, it is best to treat S. lantoscana and S. australis as varieties of S. lingulata, thereby removing the doubt that has been cast on the identity of the plant cultivated at Kew and elsewhere in this country under the name of S. lingulata var. lantoscana.

Tree planting at Grantown. — An interesting event took place in the pretty North of Scotland town of Grantown, on April 19, when an "Arbor Day" was inaugurated by the amenities committee of the burgh. In the afternoon a large number of people assembled in the Square, when suitable addresses were given by Provost Barclay, Mr. Grant Smith, Mr. Grant Thomson and Mr. D. Young. On the conclusion of the speeches a procession was arranged and the party proceeded to the west of the town, when a number of ornamental trees were planted by the path leading towards the skating pond. Mr. Grant Thomson had the honour of planting the first, and the remainder were put in their positions by several of the school-children and others. The company then proceeded to the open space in front of the County Buildings, where another lot of trees were planted, the first being set by Mrs. Robertson. The trees will add much to the amenity of Grantown, already known as one of the most attractive of the many pretty Northern towns of Scotland.

Forestry in Scotland.—The Secretary for Scotland has appointed a committee, consisting of Sir John Stirling Maxwell, Bart. (chairman), Lord Lovat, Mr. Munro Ferguson, M.P., Mr. J. D. Sutherland (Oban), Sir John Fleming, LL.D., Sir Matthew Wallace and Mr. R. H. N. Sellar, to report as to the selection of a suitable location for a demonstration forest area in Scotland, the uses to which it may be put and various other questions regarding it. The committee is a strong and representative one, and it is anticipated that good results to the science of sylviculture in Scotland will arise from its deliberations. Mr. H. Warr Cornish, Dover House, Whitehall, London, S.W., is the secretary to the committee.

Fire in a South of Scotland garden.—The vineries and Peach-house in the gardens of Croys House, Kirkpatrick-Durham, Kirkcudbrightshire, had a narrow escape from destruction by fire during the night of April 18-19. Some people who were passing along the road in the vicinity of the gardens observed a blaze, and on going to the place they found that a potting-house and tool-house were on fire. They promptly gave the alarm and roused the garden staff. Mr. J. Beaumont Neilson, the owner, and his house-party assisted in putting out the fire, which was eventually extinguished. The potting and tool houses were quite destroyed; but the fire was, happily, prevented from spreading to the vineries and Peach-house adjoining.

The International Horticultural Exhibition.—In view of the numerous applications for space at the International Exhibition, 1912, it is necessary for the sub-committee dealing with the matter to obtain some idea of the proportion which the total demand will bear to the area at their disposal. They will, therefore, be much obliged if exhibitors will intimate at the earliest date possible the nature of any exhibit, whether competitive or otherwise, which they propose to submit, together with a note of the area in square feet which it is likely to occupy. The spacing committee will, of course, do their best to satisfy the demands of intending exhibitors, but it will be understood that this request for information does not necessarily imply that the committee will be in a position to grant all the space that may be asked for. Under any circumstances the work of allotment must be a difficult matter, and the committee rely upon the kind assistance of exhibitors in the simplification of their task.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

An abnormal Arum.—The illustration on page 186 of THE GARDEN for April 22 provides material for those minds bent on fathoming the unseen workings of Nature. When one remembers the great arguments put forward by Darwin in his "Origin of Species," and notes the various forms, differences of constitution, colourings of flower, markings of foliage and development displayed in certain species of plants frequently met with in the course of a gardener's career, it makes one wonder whether such freaks are a reversion to some far-off ancestor, or whether, upon selection, they would eventually become a new species in themselves, or, at least, be looked upon as such by a future generation of horticulturists, as perhaps we to-day look upon some of our plants as distinct species, when in reality they may only be modified forms of a previous parentage. Again, could it be possible for such freaks to be the outcome of cross-fertilisation between different species or genera belonging to the same Natural Order? In putting the above question one would point to the flowers of the herbaceous Calceolaria. Most growers must have noted that occasionally, instead of all the flowers presenting the usual purse or bag shape, some of them are much drawn out or elongated perpendicularly to the stalk, and instead of the usual opening to one side of the bloom and near its base as seen in a normal bloom, the freak has an opening at the extreme end of the bloom furthest from its stalk. Remembering that the Calceolaria and the Foxglove both belong to the Scrophularia family, and that the peculiar spottings and markings of the former present a great many features found in a good mixture of hybrids of the latter, one wonders if hybridists have used the pollen from the Foxglove in their crossing with the Calceolaria, or *vice versâ*, at some period or other. If so, what is there to prevent this kind of cross-fertilisation between different species of plants in their natural habitats and the progeny presenting a new feature at some period or other afterwards? However, for the present we can only surmise and wonder over these intensely tantalising curiosities as they come before us. I am sending to the Editor a photograph, taken on Good Friday, of an Arum almost exactly the counterpart of the one illustrated on page 186. This is the third flower of this species that has come under my own immediate notice during the past twenty-five years, each having developed an extra spathe, and in each case one being devoid of the spadix.—J. C. WADD, 92, *Moore's Road, Belgrave, Leicester.*

Dwarf Brooms.—In the interesting article by "J. C." on dwarf Brooms in THE GARDEN of April 1, the writer refers to the plants of this genus suitable for the rock garden. It is curious that no mention is made of Cytisus schipkaensis from the Balkans. This plant forms a compact bush 2 feet or more through and barely 1 foot in height, and in its season is a mass of attractive white flowers in bunches. — ARCHIBALD BUCHAN-HEPBURN, *East Lothian.*

Wild flower competitions for school-children.—May I make a little protest against encouraging children to search for and gather rare wild flowers? Wild flowers of any rarity are rapidly disappearing, the causes being lane and hedge cleaners, trippers and—the collector! Lanes formerly known for their lovely wild flowers are almost bare of them now; but, curiously enough, Docks and Nettles abound! There are plenty of fairly common wild flowers for children to gather—Daisies, Buttercups and others. Surely the rare sorts should be left to the experience of judicious flower-lovers, who would know when to gather and when not. A flower-*lover*, I repeat, not merely a collector.—H. C. F.

—— When whole schools and many hundreds of children are invited to enter into gathered wild flower competitions, and thus led to overrun a restricted area of country, notably in the districts where the children reside, to collect wild flowers, what wonder if our native flora suffers severely, seeing that not only the flowers staged in any competition, but a vastly greater quantity, are ruthlessly plucked, only later to be cast aside and thus wasted. But in collecting so many of these flowers, and especially the rarer ones—for rarity is made a special requirement—the effect on the wild flora of such a plundered district must in time be so great a depletion as to ultimately destroy certain of the



ost desirable species by rendering them incapable f reproduction through seed agency? I have had judge many thousands of wild flower collections nd bunches, and have always strongly deprecated he wholesale way in which wild flowers have been athered and cast aside or set up in huge bunches hat neither helped to educate nor showed taste in rrangement. But I have often advocated as n improvement on this wholesale form of ollecting and destroying flowers that ladies of ducation and with some little botanical knowledge hould undertake the charge of classes of both oys and girls, taking them on rural excursions nd giving them instruction on the round in both he common and botanical names of the flowers, so advising each student to be armed with a book nd pencil to write in it both the names thus given, describe the colours and forms of the flowers nd the positions where found. That would be al rural education. Perhaps it would be difficult find teachers having the needful knowledge; ut it should not be so. In any case there would e no wasteful gathering of the flowers or uproot- g and destroying the plants. Where wild flower ompetitions are arranged at rural flower shows, no case should the number of species asked for xceed twelve, and those to gain a prize should be orrectly named. In the case of Grasses, these re so plentiful that at least twenty species might e shown.—A. D.

Hydrangea Mme. Moulliere. — With eference to the article regarding this new Hydran- ea, which appears on page 180, we think it is only ir to point out that at the time of granting the ward of merit it was suggested by several—our- lves among the number—that the plant had ready received an award; but at the time no cord could be found, with the result that the ward to which you referred was given. It has nce been found that a previous award was given y the Royal Horticultural Society to M. Emile ouillère, who was the raiser of it, on May 3, 1910, nd we would ask you to kindly give prominence this fact.—STUART LOW AND CO.

Manuring Roses.—It seems to me that we ake a mistake in applying a lot of cold organic anure to Rose trees in the autumn and winter, pecially so when we apply it to newly- anted specimens. I wonder how many kinds trees that are planted possess fewer roots than oses do generally? Usually, there are two or ree almost fibreless thong-like roots, and how n a lot of cold organic manure benefit such hen it is applied at the coldest season of the year? we were to stand ankle deep in such manure in inter-time for a long period, we should soon feel chilling effect. I do not favour the practice of plying cold, fresh manure to Roses in the utumn (and if I may digress a moment) nor to sparagus-beds. The soil is naturally cold ough. We realise this when we are waiting for to become sufficiently dry for planting purposes many instances. When newly planted, and til the warmer weather comes in spring, I vour the application of a surface mulch of very tery manure, which will prevent frost entering e soil and maintain the temperature of the latter even as possible. When all danger from frost past and the young shoots are commencing to ow freely, a liberal dressing of rotted manure ould be dug in. The new roots are also begin- ng to grow, and they will benefit from the appli- tion of the manure. Moreover, this is the period en a cool rooting medium is beneficial to the se, and the new growths and flower-buds quire sustenance. The roots, having got posses- n of the rotted manure, will be further engthened by applications of liquid manures perly diluted.—GEORGE GARNER.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

LEEKS.—When the earliest sowing of these are large enough, they should be put out in well-manured ground. It is usual to plant these out in trenches about 2 feet apart and 18 inches deep, and a good quantity of manure must be dug into the bottom of the trench. The plants must be handled carefully, so as not to disturb the roots any more than can be helped. For exhibition purposes stiff paper collars may be used. Much cleaner and better-blanched Leeks may be grown by this method.

Celery.—Prepare trenches for planting out the most forward plants. The width of the trenches will, of course, depend on the number of rows of plants it is intended planting in each trench. For exhibition purposes the best results are obtained by planting in single rows and using paper collars; but for ordinary use two or three rows may be planted in each trench. In any case, plenty of well-seasoned manure must be dug into the bottom of the trench, and the soil well broken up with a fork. At no time must the plants be allowed to suffer for want of moisture.

Beetroot.—A sowing of these may be made about the first week in May or early in June. Sow in drills 18 inches apart, and when large enough thin out the seedlings to 9 inches apart. To obtain roots of the best quality it is often necessary to make holes with a crowbar and fill them with fine soil.

Runner Beans.—These may be sown outdoors in well-prepared ground about the first week in May, or they may be sown in 4-inch pots indoors and kept in cold frames till the weather is suitable to plant them out. Slugs are usually very attentive to the young seedlings. A dusting of lime will usually keep them off. Protect the young plants from cold winds and frost with evergreen twigs. Sow French Beans at intervals as the supply demands.

Carrots and Parsnips.—When these are large enough they may be thinned. Early Horn Carrots must not be thinned so severely as the main crop, as they will be needed for early use. The Dutch hoe must now be used frequently among all vegetable crops.

Salads.—Sow Radishes in a sheltered position about once a fortnight. Keep them well supplied with moisture during dry weather. Mustard and Cress must also be frequently sown. Supplies of Watercress may be obtained by sowing seeds or planting cuttings in a shady situation. A cold pit placed under a north wall will suit this crop to perfection. The plants will need copious supplies of water.

FLOWER GARDEN.

Preparing Plants for Bedding.—Plants which have attained a suitable size may now be moved to cold frames to get thoroughly hardened off in readiness for bedding-out. It will be necessary to have plenty of materials at hand to protect them in case of hard frost. Such plants as standard Fuchsias, Pelargoniums, Swainsonas, Lantanas, Heliotrope and Marguerites must be placed in a cool house for a few days and given abundance of air before placing them outdoors. Prick out annuals from the seed-boxes before they become crowded. Those which have been sown in their permanent quarters must also be liberally thinned. Seeds of the more tender kinds may now be sown.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

BORDER CARNATIONS.—Those that have been wintered in frames or under protection should now be planted out, and if the same beds are used year after year the soil should be almost entirely renewed before planting, taking care not to introduce any material containing wireworm, a pest which is very destructive to Carnations and often found in large numbers in turf obtained from old pastures. If, however, the turves have been cut and exposed to the winter's frost before carting, most of the wireworm will have left them and burrowed deeper into the soil, so that no fear need be entertained from that source. Carnations succeed well in a rather heavy loam; if of a clayey nature, so much the better. With light, sandy soils it is advisable to add some road scrapings and to mulch the beds during hot weather. We find that autumn planting gives the best results; but as success depends very much on a favourable winter, it is necessary to provide for failures by having a good supply of layers wintered in protected structures, *i.e.*, frames constructed of close-meshed wire-netting, as a protection from vermin, with sashes placed over them to keep off snow and rain. The autumn plantation requires examination from time to time during spring, especially after frost, to make firm in their places any of the plants that may have become slackened by the action of the weather. All blanks should now be made good. Pheasants are very destructive to Carnations; and as the usual methods of dealing with vermin pests are denied to the gardener in regard to pheasants, he must of necessity try to prevent their entrance to the Carnation garden. We find a temporary fence of wire-netting about 3 feet high usually serves the purpose if the area is not too large.

Violas.—These should now be planted out in their flowering quarters. A few of the hardier and free-flowering varieties may have been left to do duty for a second year; these should be trimmed and made tidy and given a top-dressing of leaf-mould. As a rule, Violas are most satisfactory when grown from cuttings annually. A light but rich compost suits the Viola, and in planting they should be let well into the soil. June and July may be said to be the best flowering season; but where the display is wanted for autumn only, the plants should be regularly pinched or cut down to prevent them flowering earlier, the last pinching being done about a month previous to the time they are wanted in flower.

Violets in unheated frames are now producing runners. A supply of these should be severed from the parent plants with a few roots attached, and placed on a partially-shaded border which has been previously well prepared with leaf-soil and well-rotted manure.

Shrubs.—Newly-planted shrubs should not be allowed to suffer from drought, and a continuance of the present dry weather will make it imperative that all should receive a good soaking of clear water. Conifers, especially Cupressus and Thuya, move well at this season, and quite large plants may be transplanted with confidence if they are well supplied with water.

Lawns will now require to be put in order for the mowing-machine. Brushing and rolling should be well done to avoid damaging the cutting blades at the beginning of the season. During hot and dry times it is advisable to dispense with the grass-box; the cut grass left on the lawn acts as a mulch. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle

THE ROSE GARDEN

ROSE MARECHAL NIEL.

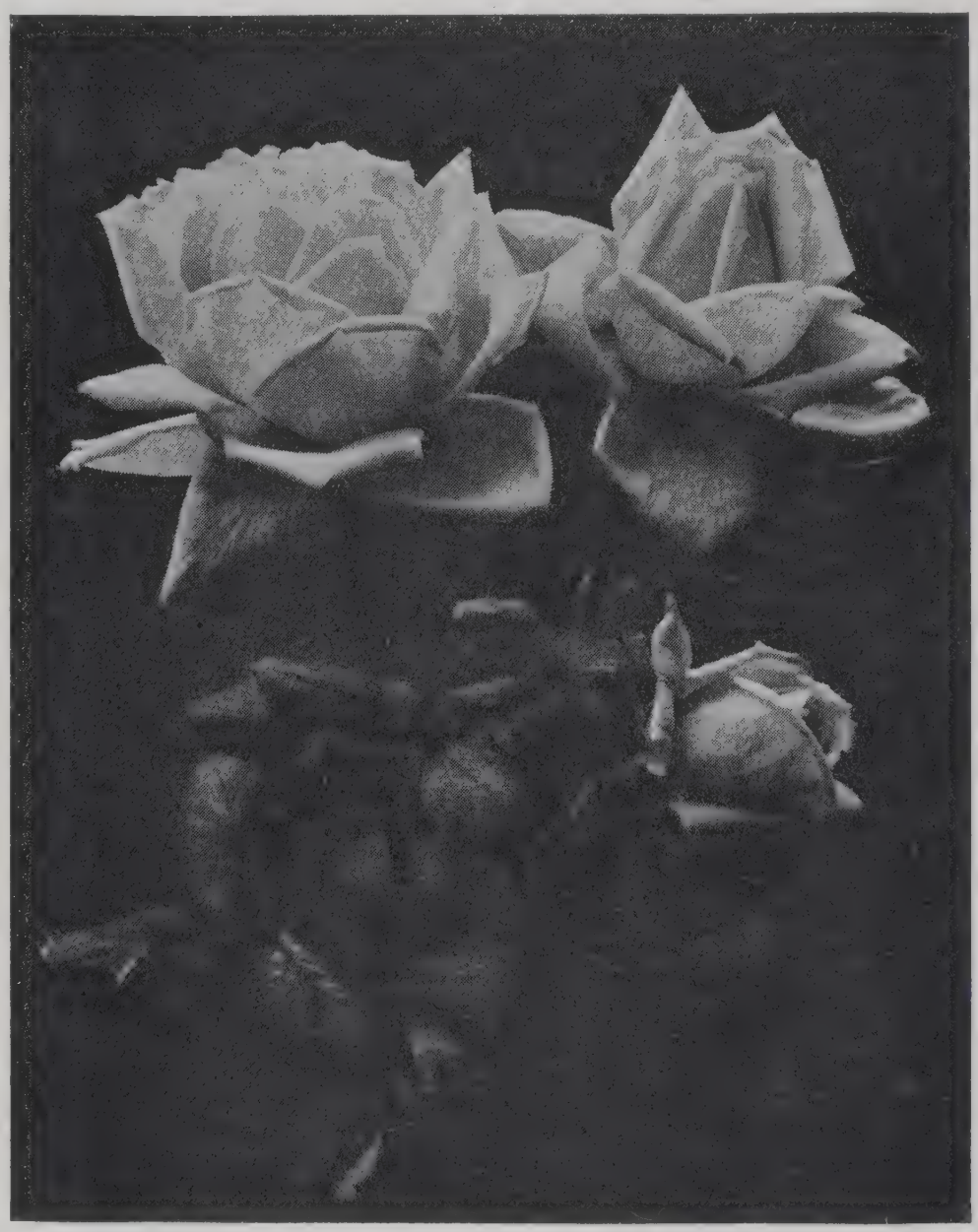
ALTHOUGH I do not think this grandest of pure yellow Roses is so generally grown in the amateur's greenhouse as used to be the case, there can be little doubt it is by far the most popular variety as a climber. Maréchal Niel has now been a great favourite for very nearly half a century, and is unbeaten still as a yellow Rose under glass. It is only in a very few favoured localities and positions that this Rose is satisfactory outside; but, given the least protection under glass, it is simply unsurpassable in every respect. Some few have expressed the opinion that it is deteriorating. I do not agree with this, but believe the advent of so many other good climbing Roses, and also good yellows of a dwarfer habit, has somewhat discounted its universal cultivation and popularity. There have been many discussions over this Rose. Some will have it upon one stock, some another, some worked upon a second variety of Rose, and not a few contend it is of no use unless upon its own roots. I have tried it in all known ways, and come to the conclusion that all are useful and suitable, providing the other conditions fit the erratic behaviour of this Rose. That it is very uncertain all who have had much experience with it under varying conditions will readily admit.

Perhaps the most frequent cause of failure with this Rose is canker. I know of no rosarian who thoroughly understands this disease of the Maréchal Niel yet. Many of us have our own theories and beliefs, but even with the most careful and practical grower canker is liable to put in an appearance in the most surprising manner.

Maréchal Niel only produces one really good crop of flowers each season, but this is so large and good that few Roses of perpetual-flowering habit carry more blooms during the year than a well-grown specimen of this variety. To have it at its best it should be grown in a cool house on much the same system as Vines, that is, either planted inside or just outside the house and a good border provided for its roots. Of course, there is no necessity for so large a border as with Grapes; but I feel certain we do not pay sufficient attention to the quality and preparation of these borders. Give a thorough mixture of good stiff loam, turf and manure, with good drainage, so that any feeding from artificial or other liquid manures may not leave the ground stagnant, a condition I feel sure has much to do with the many causes or aggravations of canker. This Rose is very partial to half-inch and 1-inch bones as a staple part of its drainage, and, such being a steady, lasting food as well as drainage, I strongly recommend its use. Providing Maréchal Niel can grow away, both root and top, free from serious check, the greatest part of any difficulties is guarded against. It is the checks and too frequent neglect after the crop of bloom has been secured that tell so much upon the future of this Rose. While in full growth the roots need ample feeding with liquid manures, but let this be weak enough to allow of a good soaking instead of lesser applications that not only excite the roots, but often do not reach nearly low enough. Endeavour to start the new growth slowly. Haste at first is the most frequent cause of blind or flowerless eyes, which should seldom be the case upon a well-ripened rod of last year's growth. Let these shoots be trained about 18 inches from the glass, or the young growths quickly reach the glass and are either too hot or too cold. The young growth is rather more subject to mildew than most Roses, and great care should be taken to avoid the chief causes of this disease, viz., draught, sudden changes of temperature and checks of any kind. After the crop of blooms has been cut from the laterals of these long rods, the latter should be cut back. It is an excellent plan to train a couple of long rods horizontally along the bottom of the house and cut back annually to the first breaks from these. One does not get such long rods individually, but this plan secures a greater and more uniform amount of useful wood each year. Even then, if a plant is doing extra well, two or more rods might be allowed to go straight from the bottom, and these may be cut right down each time after flowering.

I have tried Maréchal Niel upon the Briar in all forms, upon the De la Grifferaie, Polyantha, rugosa and other stocks, also upon Roses such as Dorothy Perkins and other strong growers; but of other Roses when used as stock, I would select the Banksian, especially the variety known as fortuneana.

Where canker puts in an appearance, very little can be done, according to my experience. It may be eased a little by cutting away as much as possible and rubbing cow-manure or gas-tar into the affected part. I much prefer the cow-manure, used as fresh as possible. It certainly does no harm, and has a tendency to keep air from the cut as well as the irritation of insects that would otherwise often feed upon the exuding sap. As a rule, canker appears at the junction of stock and Rose, and is, no doubt, sometimes caused by the unequal swelling of Rose and stock. It is very peculiar that, if we put a plant by the side of one affected by canker, the second one is quite likely to grow away without any contamination; so, if a plant is failing, put in another to make a year's growth ready to take the space of the first after cutting out. A. P.



THE NEW HYBRID TEA ROSE MARCELLA. (*Much reduced.*)

ROSE MARCELLA (H.T.).

THIS is a new Rose, and the first to receive an award of merit from the Royal Horticultural Society this year. It belongs to the Hybrid Tea section, and is likely to prove an acquisition both as a forcing and as a garden Rose. The flowers are large, slightly fragrant and of pale flesh colour, with more than a suspicion of creamy buff at the base of the petals. The flower-buds are long and pointed, the growth vigorous, and it is likely to prove an excellent variety for exhibition. It was shown by Messrs. William Paul and Son, Waltham Cross.

ROSE COMTESSE FESTETICS HAMILTON.

UNTIL some of the newer crimson and rich red Hybrid Teas become more readily procurable, we shall to a large extent be dependent upon some of the lovely Teas, such as Comtesse Festetics Hamilton. Visiting a large Rose garden in Essex last summer, I was delighted to find this old Rose making such a splendid display, both in bush and standard form. It was the showiest variety in the whole garden, not even excepting such good sorts as General Schablikine, Corallina and Warrior. The coppery colouring in the centre of its brilliant carmine blooms gives to the Rose a most unique effect, which is also seen in the same raiser's beautiful General Gallieni. How successful M. Nabonnand has been in his production of novelties in Tea Roses is hardly evident until one glances over a catalogue. There we shall find such beauties that owe their origin to this raiser as G. Nabonnand, Yvonne Gravier, Lucy Carnegie, Mme. P. Perny, Comtesse Sophy Torby, Clement Nabonnand, Sophia King, Zoë Brougham, Isabelle Nabonnand, Paul Nabonnand, Bertha Kleman, Jeanne Proudfoot, Marie d'Orleans and Mrs. Reynolds Hole, all delightful productions which, unfortunately, in many cases have become overlooked for less worthy Roses. Many of them possess that airy lightness we have learned to admire, and far surpass Roses of the type of Souvenir de Pierre Notting, which rarely produces a good clean bloom, although when it does it is superb. P.

THE FLOWER GARDEN.

SWEET PEA NOTES.

FINISH PLANTING.—If there still remain any plants in pots or boxes, they should be planted immediately. It is not too late to secure excellent blooms from late-sown seeds; but the ground should soon be getting well warmed, and it is most important that the roots shall have become thoroughly established in their new soil before we have hot, dry weather, or watering will have to be done, and this is far from desirable in the earlier stages. Even though the plants may be on the small side (it is scarcely possible that they can be tender at this season of the year) I should get them out, for I am convinced that the prospects of success will be much brighter.

SUPPORTING.—This is a detail of management that is of the utmost importance. To some readers it will spell little, if anything, beyond inserting a row of sticks down each side of the line of plants; but to the man who means things it is far more than this, and he will devote a considerable amount of time and skilful attention to carrying it out. Growths which are allowed to go in their own sweet way will not always travel in the direction that is best for them, so the careful cultivator steps in with a tie which will put the matter right. Again, in the early days of progress the plants do not hold as securely as they must do to the supports that are provided, and then the value of a tie or two is plainly apparent. To support properly will force the grower to watch the plants incessantly, and he should at the same time see whether there are any superfluous shoots in the rows whose removal will be for the general good. If there are, it is the work of a second to cut them out.

SURFACE CULTIVATION.—The cultivation of Sweet Peas, no matter whether it is desired to produce blooms of exhibition standard or not, involves carrying out many and varied details, and among them will rank persistent surface loosening. It is sometimes thought that mulching wholly takes the place of hoeing or pricking over with a fork, but this is not the case. The opening up of the soil must commence immediately after planting is accomplished, for the simple reason that we always want water and air to enter freely, and especially when the plants are young; whereas we do not want to feed them by top coverings of manure until they are much more advanced. The tool must not be driven in so deeply that a single root will be touched or disturbed, but the finer the top can be kept the better for the results.

GREEN FLY.—I sincerely hope that none of my readers has had a visitation from this pest up to the present date, and that all may be spared the honour throughout the season; but such is not likely to be so. Whatever operation may be in hand in connection with the plants, the possibility of an attack of green fly should be in mind, and the grower ought to examine each plant carefully for the first one to come. Let the death meted out be painless, if possible; but whether it be so or not, let it be sure and sudden. A. B. ESSEX.

DWARF CAMPANULAS.

The dwarf Campanulas are indispensable for the rockery, since they are in bloom during August, when but few flowers are to be found in this part of the garden. The accompanying illustration shows a mass of Campanula turbinata (violet blue and white); beyond are the delightful Harebells, *C. rotundifolia*. E. TESCHEMACHER.

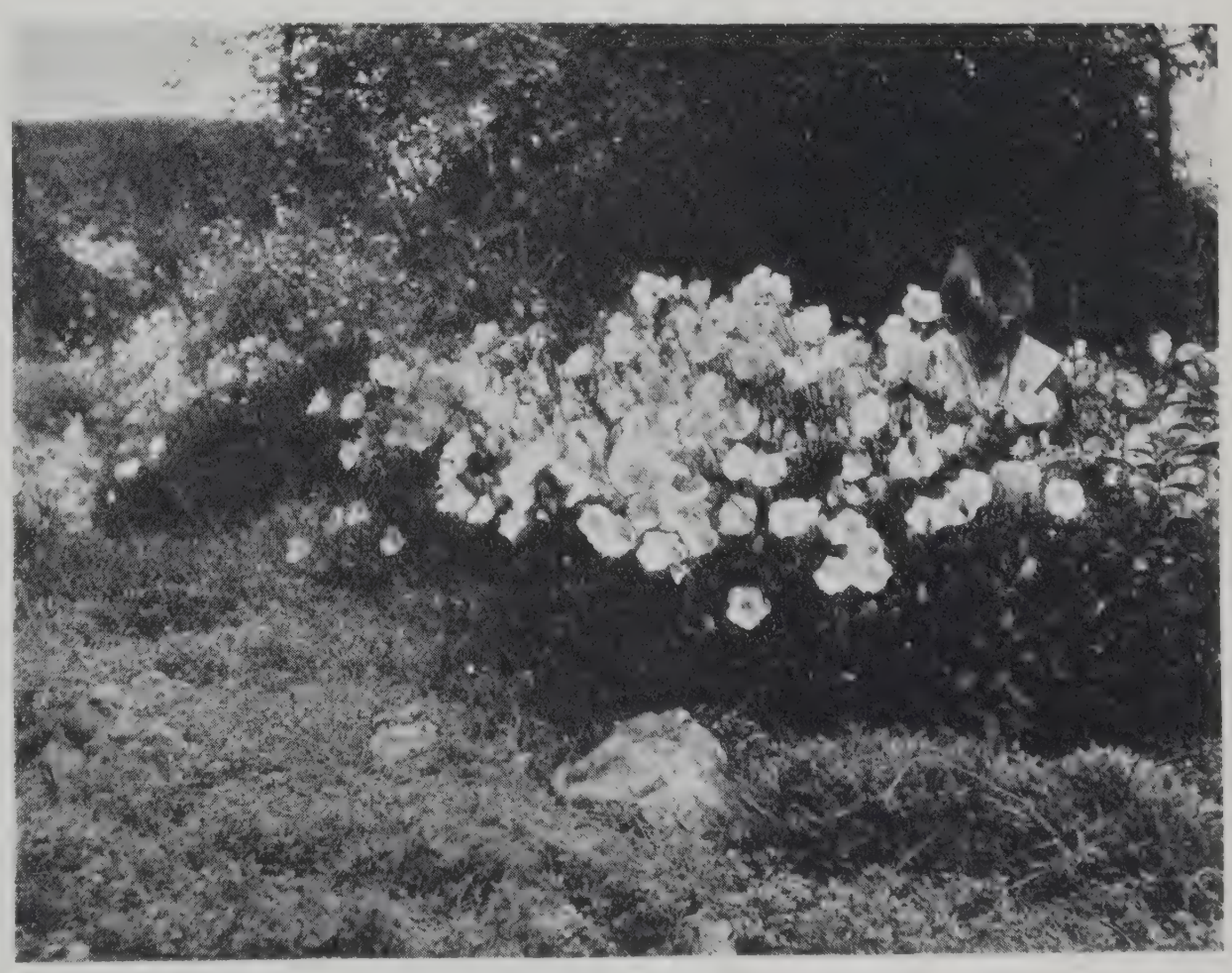
THE CULTIVATION OF VIOLETS IN FRAMES.

MOST gardeners endeavour to grow Violets in frames for autumn, winter and early spring blooming, but there are many who do not achieve very great success. The large single and the double varieties may be grown for winter flowering in cold frames, the first thing being to secure an early start with good, strong, divided plants. These can mostly be obtained in April from any grower, and should be planted out on a border or piece of ground that is shaded to some extent during the hottest and brightest part of the day. A north-east or north-west aspect is to be recommended. Some pains should be taken to prepare the border, which should consist of good, loamy soil, with some leaf-mould and the remains of a spent hot-bed well forked in. This will improve the soil should it be at all poor. About 18 inches should be allowed between the rows, and 1 foot from plant to plant in the rows. Plant very firmly, and be careful not to bury the crowns. After completing the planting water well in. The plants must at no time suffer for the want of moisture. During the summer months weeds must be kept under, and the soil between the plants frequently stirred on the surface with a Dutch hoe. About mid-summer, and at a later date, runners and flower-buds are sure to appear, and these should be carefully removed as soon as large enough to handle. Though Violets cannot stand a great deal of sun, they like a certain amount, and always plenty of light. About the end of September the plants, which by then will have developed into large, strong clumps, well set with flowering crowns, should be carefully lifted with a big ball of soil intact, and immediately transferred to a cold brick or wooden frame, in which a bed of soil has been prepared similar to that in which they have been growing. The bed should be made up to within 6 inches of the glass, if possible, as it is most important to keep the plants from getting drawn. Plenty of air should be given on all favourable occasions, except during very hard frost. Water must be given rather sparingly; at the same time, enough should be given to prevent the plants from suffering. Protection on the lights by means of mats or other covering must be given during hard frost or snow. Plants treated thus should bloom from October to April; but the greatest show of flowers will be produced during February and early March. There are several kinds now in general cultivation. The two most popular are Princess of Wales (single) and Marie Louise (double). A. C.

THE EUROPEAN DOG'S-TOOTH VIOLETS.

FEW flowers of spring are more beautiful than the Dog's-tooth Violets, or Erythroniums; of these the European E. Dens-canis and its varieties form the subject of this note. The American species and their varieties are rarely beautiful; but the European species is even easier to cultivate, and is so cheap nowadays that it may be planted in quantity. As a plant for the grass it is very beautiful, giving in its season dainty reflexed flowers, Cyclamen-like in their habit, and lifted above the charmingly marbled or spotted leaves which are so characteristic of the Dog's-tooth Violets as a rule, but which are never more beautifully represented than among the varieties of these European Erythroniums. In the grass these have the advantage that they ripen their leaves early, and are thus out of the way before much mowing has to be performed.

The flowers are varied in colour, some being of purple red, and others pass through various shades until pure white is reached. They are variable in size, and selected plants and seedlings are sold under name at a price generally but little higher than for mixtures. The latter are, however, very pretty, and quite good enough for naturalising in the wilder parts of the grounds. For wild gardening and for planting in open places in the woods these flowers are very beautiful, and the fact that they thrive in partial shade as well as in sun renders them more



CAMPANULA TURBINATA IN MR. E. TESCHEMACHER'S GARDEN.

valuable. In the border they are also charming, and they can be employed advantageously on the rockery, where they show well when above the ground-level, and if about level with the eye all the better, although it hardly seems natural, and the greater elevation rather depreciates the appearance of the leaves.

Erythronium Dens-canis likes a free and open soil of a vegetable nature, and one composed of loam, leaf-soil and a little sand will suit it well. The roots should be procured as early as they can be furnished by the bulb-dealers and nurserymen, and planted immediately with the crowns about 1 inch or 2 inches below the surface.

Dumfries. S. ARNOTT.

HARDY PRIMULAS AT CLANDON PARK.

EVIDENTLY in few gardens are hardy Primulas so extensively planted and utilised for beautifying a damp, rather low-lying piece of woodland as at Clandon Park, Surrey. The Earl of Onslow is an ardent lover of the garden, and it is by his desire that hardy Primulas have been largely planted in what is known as the Dell, a wooded area that lies between the two large lakes in the park. Commencing with hardy Polyanthuses, then following with Primula japonica, there are now in huge groups various other species, the earliest of which to bloom have been P. denticulata and the variety cashmiriana, the latter being represented by deep blue, light blue and white forms. Primula rosea is not less early, and has been in bloom in large groups of hundreds of plants, in spite of the severe frosts and intensely cold winds that have prevailed, giving rich colour in profusion. The P. japonica strain is of the deep crimson colour, good self masses being better appreciated than mixed ones. With these are extensive masses of white and yellow Polyanthuses. But ground in various parts of the Dell has already been prepared for the reception of other and newer as well as some older species. Primula farinosa and Sieboldii are being planted largely, and many hundreds of seedlings of cockburniana, bulleyana, Veitchii and others are being raised to fill vacant ground later on.

The position of the Dell, with its undulations, its overhanging trees, capital deep, retentive soil and winding walks, seems to form an ideal place for a Primula garden. Mr. H. Blake, the head-gardener, thoroughly enters into his noble employer's desires, and is an enthusiastic cultivator. On the soil floor of a plant-house, over which last year a few plants of Primula kewensis stood and shed some seed, many of these seed-raised plants were, in the middle of April, growing and blooming luxuriantly; indeed, they were finer than those grown in pots. This result of a pure accident is one many gardeners may care to make a note of.

The illustration on page 203 gives some idea of the extent and natural manner in which the Primulas are grown. Primula denticulata cashmiriana is shown in the foreground, and beyond these on the sloping ground P. rosea and Polyanthuses find a happy home A. D.

THE COBWEB HOUSELEEK ON A DRY WALL.

THE illustration of Sempervivum arachnoideum (the Cobweb Houseleek) and the accompanying note by Mr. Bowles in a recent number of THE GARDEN reminds me of one of the best positions for this delightful little plant where the garden is situated in a moist district. In such there is a tendency for the Houseleek to suffer in winter, and it is essential that it should be so planted that rain will hardly ever lodge among its rosettes. I have found that a little ledge just projecting from a dry wall, and easily made by inserting a very thin stone into one of the horizontal joints and projecting little more than 2 inches, forms a good place for this little plant. A small quantity of soil is put on the ledge in a sloping position, *i.e.*, thicker at the part where it adjoins the wall than at the outer edge of the ledge. Then the Houseleek is also planted in a sloping position, so that the rain will flow off it, only sufficient lodging about the plant to keep it alive. An old dry wall plastered up with mortar will serve well, as it has generally plenty of ledges already, and one of these can be utilised for the Sempervivum. As Mr. Bowles remarks, birds are great enemies of these Houseleeks, and one with destructive tendencies will soon make havoc of a clump of this little Sempervivum. On a wall such as I suggest the birds cannot pursue their operations so readily, and there is small chance of a worm or grub making its way to the ledge to attract the notice of the former. S. ARNOTT.



THE HIMALAYAN RHODODENDRON CILIATUM.

THE GREENHOUSE.

A FREE-FLOWERING RHODODENDRON.

(R. CILIATUM.)

THIS beautiful Rhododendron is a native of the Himalayas, and, like many other garden plants from the same region, it just fails to prove hardy in this country, except in favoured localities. It is generally looked upon as a May-flowering subject, although it often flowers from the middle of April onwards. The flowers are of a delicate mauve-pink, rather pale in colour, and borne in terminal heads or trusses. In regard to its flowering propensities the illustration on this page speaks for itself, where this free-flowering species is shown to advantage as a corner plant in the Temperate House at Kew.

Rhododendron ciliatum is of easy culture as a greenhouse plant so long as it receives its fair share of light and room. It does not require a warm temperature, and seems to thrive best when planted in a border. Like other Rhododendrons, it is a peat-loving plant, and shows its dislike to the presence of lime in the soil, or even in the water applied to the soil.

This handsome Rhododendron may be successfully grown as a pot plant, and it is astonishing to note how free flowering it is when so cultivated. It is better, however, to flower the plants one year and allow them to rest the next by planting them out in a reserve bed in the open air.

THE GREEN-LEAVED VELTHEIMIA.

SOME little time ago a fine potful of this uncommon Cape bulb flowered beautifully in the conservatory of T. Simpson, Esq., Fennymere, Castlebar Hill, Ealing. It is a scarce plant in cultivation, more particularly in private establishments, and this is no doubt to be accounted for by its slow rate of increase, and not from the difficulty of growing and flowering it. In 1799, Curtis said that it would probably be more common, but that it neither readily perfected seeds nor was easily increased by roots. That is the position to-day, but the long-lived character of the bulbs and the ease with which they may be flowered in a warm greenhouse, together with the beauty and the long duration of the flowers, should act as an incentive to more extended cultivation. Few bulbs continue to bloom for so long a period during the dullest months of the year, and few give less trouble to cultivate. In structure and general aspect the flowers resemble those of Kniphofia, but the rootstock is a true bulb, whereas that of Kniphofia is fibrous. The colour of the flowers is a pleasing soft rose, faintly mottled with white, and therefore totally unlike any colour met with among the Kniphofias. Only two species of Veltheimia are in cultivation, and the species above noted (V. viridifolia) has larger flowers and is more ornamental than V. glauca, also from the same country. V. viridifolia was introduced in 1708,

ıd Phillip Miller said that the bulbs should be eltered in a glass case in October and planted ıtside in May; but that was before greenhouses ıd hot-water apparatus had reached their present ate of efficiency. J. F.

COLOURED PLATE.

PLATE 1424.

ZONAL PELARGONIUMS.

DESPITE the fact that the Pelargonium Society (an important one in its day) has been dead for many years, Pelargoniums still hold their own in popular favour, and some types at least are grown more than ver. This especially applies to the members of e Zonal section, for though they are not bedded ıt during the summer to anything near the ttent that they formerly were, yet they are very rgely grown for greenhouse decoration. For inter flowering they were never so much culti-ated as they are now, and in most gardens of any etensions a house of these Pelargoniums forms a illiant feature during the dull months of the year. Though Zonal Pelargoniums are of a decidedly ccommodating nature, an important point to ear in mind regarding their cultivation is that the riginal species whence these garden varieties ave sprung are natives of the open plains of outh Africa, where pure air and abundant sun-ine prevail. This furnishes the key to their quirements here, for they very much resent ıy attempt at coddling, a close moisture-laden mosphere being in every way detrimental to eir welfare. For winter blooming a very essen-al point is to strike the cuttings in the spring and ow on the plants throughout the summer in a ot well exposed to sun and air. They should e potted firmly (pots 6 inches in diameter being good size in which to flower them), and the ossoms must be picked off till the plants are ady to be taken into the greenhouse in the utumn. In this way bushy, short-jointed plants ay be obtained, which in a temperature of 50° 60° will bloom throughout the winter. For rnishing pillars or walls in the greenhouse, Zonal elargoniums, especially the strong-growing, mi-double kinds, are worthy of being more ten employed for the purpose than they nerally are. The variety His Majesty, shown in e coloured plate, was unanimously given an ward of merit by the Royal Horticultural Society November, 1909, and is one of the best autumn ıd winter flowering scarlet Zonal Pelargoniums et introduced. It is particularly good in the eenhouse from September to June, and is a perb variety for conservatory decorations. wing to the wet weather of last summer its edding qualities have not yet been fairly tested. has a splendid habit and makes a grand pot ant. It was introduced by Mr. W. H. Page, ngley Nurseries, Hampton, Middlesex, who ndly supplied the flowers from which the loured plate was prepared.

A class of Zonal Pelargoniums known as Cactus rieties attracted a good deal of attention three four years ago. In these the petals are more less fluted, thus forming a starry Cactus-like wer. They, however, speedily declined in pularity, owing to the fact of the growth being ak and the trusses poor. Far and away the st is the oldest of all, namely, Fire Dragon, ich originated as a sport from F. V. Raspail, d which, from the distinct character of its deep rlet flowers, is well worth growing for the sake variety. H. P.

THE FRUIT GARDEN.

SPRING TREATMENT OF OUTDOOR STRAWBERRIES.

IF Strawberry-beds were mulched during the early winter it is probable that the soil has become somewhat heavy and sour beneath the manure. Stir the manure and surface soil vigorously with the hoe and let the sun and air into the ground. The operation should, of course, be only performed after a short spell of fine weather. Should there be any manure-water going to waste, it is a good plan to give it to the Strawberries any time after they begin to make new leaves. Failing manure-water, the plants will be greatly benefited by a dressing of chemical manure applied at any time before they come into bloom. As chemical manures lose much of their value by exposure to the air, it is best to hoe in the dressing, or to sprinkle it on when there is a prospect of rain to quickly wash it into the soil.

If the beds are troubled by slugs or the smaller centipedes, give them a good dressing of soot. This may be applied at any time before the plants come into flower. The soot may be dusted right into the plants, but should be used when the foliage is dry. It will prove an excellent fertiliser as well as an insécticide. I have used it at the rate of a bushel to seventy-five plants.

If a spare frame is placed over a part of a bed of any early variety, their progress will be accelerated by some weeks, and the produce will fill a gap between forced fruits and those produced in the open air. Should the frame prove too deep for the work, it can be easily lowered into the ground by opening a small trench for its reception. It is well to have the plants near the glass, so that they have the full benefit of the sun. The frame should be closed sufficiently early to raise the temperature 10° or 15°. It should also be covered with mats or other protecting material on frosty nights.

To grow the plants with the highest results in this way it is a good plan to prepare a few little beds on the sunniest side of the garden for the purpose. THOMAS H. WORLD.

Grove Park Gardens, Yoxford, Suffolk.



PRIMULAS IN THE GROUNDS AT CLANDON PARK, THE SEAT OF THE EARL OF ONSLOW.

(*See page* 202.)

THE KITCHEN GARDEN.

TOMATOES IN THE OPEN.

FOR two years in succession now we have had unfavourable weather for the cultivation of Tomatoes in the open air. During the next few years, however, cultivators may experience ideal summers for these plants. It is necessary to treat plants intended for outdoor culture with as much care as, if not more than, those selected for fruiting under glass.

For many years I grew between 10cwt. and 15cwt. of Tomatoes in the open air in a private garden without much trouble during the summer months, but I took trouble with the plants prior to their being put out. I had plants which suffered a severe check in spring, and so learned a lesson. They were not hardened off as gradually as they ought to have been, and so I had to be content with a late and poor crop owing to the first two trusses of fruits being lost. After this experience I made up a rough frame in a warm corner; in the bottom I placed a thin layer of old ashes and beat them down firmly, then a thin layer of rotted manure was put on, and, finally, a generous compost 4 inches deep, all being moderately firmed while in a partially dry condition. Instead of retaining the plants in pots or boxes until the planting out time came, they were transplanted 6 inches apart in the improvised frame during the latter part of April. Glass lights were put on at first, then they were removed in the daytime and replaced at night. By the middle of May mats at night sufficed, and on June 5 the plants were put in their fruiting quarters against walls and in open borders in rows, and duly staked and surface mulched.

They had made grand progress in the rough frame; some of the first trusses were bearing tiny fruits. It was a very simple matter to lift the plants from the hard bed of ashes with masses of earth adhering to the numerous roots, and no check to growth occurred. By treating the plants in this way I gained nearly a month out of the whole season.

It is not advisable to plant Tomatoes in a loose, rich soil in any circumstances, and especially is it harmful if the plants are grown in an open-air

border; a too luxuriant growth would result, and if the season proves to be cool and wet, the plants, not being under control, would be unsatisfactory. If the soil is naturally poor, I would not hesitate to dig in some rotted manure; but if fairly good, I would top-dress and feed after the first few fruits are set. A dessertspoonful of superphosphate per plant, well watered in, three times during the summer will prove very beneficial. G. GARNER.

TREES AND SHRUBS.

A LITTLE-KNOWN JAPANESE SHRUB.

(STACHYURUS PRÆCOX.)

TOWARDS the end of February and throughout the month of March this Japanese shrub flowers freely under favourable conditions. It is, unfortunately, not very well known, this being probably due to the fact that the plant cannot be considered perfectly hardy, except in somewhat mild localities. This little failing, however, may be easily overcome by giving the plant a sheltered position. In most gardens these are easy to find, while in exposed localities a south or south-west wall forms an ideal situation. In habit this Stachyurus forms a spreading bush, and is deciduous; the younger wood is dark red in colour, and the flowers, produced in advance of the foliage, are bright greenish yellow. These are small and borne on numerous drooping axillary spikes, somewhat catkin-like in general appearance. There are sometimes as many as twenty-five small flowers on a spike. The plant is not difficult to propagate, rooting from cuttings made of the half-ripened wood during July and August on a hot-bed or in a close frame, preferably with a little bottom-heat. The Stachyurus thrives in a loamy soil, preferably light in character, to which may be added with advantage a little peat and leaf-mould. A. O.



AN EARLY-FLOWERING JAPANESE SHRUB: STACHYURUS PRÆCOX.

VIBURNUM OPULUS NANA.

THIS old but little-known shrub never looks prettier than in winter when deprived of its foliage. The graceful branches make a vivid display of bright red, orange and yellow, rivalling in beauty the Willows. The shrub is of a very dwarf growth, seldom reaching 2 feet in height, but forms a round bush or roundish pyramid often 2 feet to 3 feet through. For rockeries or the foreground of shrubberies this little Viburnum is quite ideal and capable of producing most entrancing effects, as in addition to the charming winter colouring of the branches, the leaves assume most beautiful autumn tints and remain on the shrub until and after Christmas; also the young foliage in the spring is pleasing with its bright rosy hues. It has, however, one fault, and that is that it never flowers; but this is amply compensated for by the brightness of the leaves and branches. It is very easy to grow, will succeed anywhere, but does best in a dry and sandy soil in a sunny position.

Guildford. H. P.

A NEW VIBURNUM.

(V. DAVIDII.)

THIS is one of a number of new Viburnums which have been introduced from Western and Central China within the last few years. Like many of the species, however, it has been known from herbarium specimens for a much longer period, for it was collected by Père A. David in Mupin in April, 1869, and was described by Franchet in "Plantæ Davidianæ," Vol. II., page 69. It is an evergreen, and is said to grow from 1 foot to 2 feet in height. The leaves are ovate, 4 inches to 6 inches long and 1¾ inches to 2¼ inches wide. The margins are toothed, and the surface is peculiar by reason of three strong nerves, which form an ellipse with a quarter-inch margin. The flower-buds are set in autumn, and remain dormant all the winter, to open into moderate-sized inflorescences of white flowers during late spring. They are succeeded by small blue, oval fruits, which ripen in autumn. Though rare at present, it ought to form a useful shrub and become popular in the future.

It is found at an altitude of 8,400 feet, in consequence there is every reason to believe that it will prove quite as hardy as other species from the same altitude in Western and Central China. D.

THE TOWN GARDEN.

WINDOW-BOX GARDENING.—That window-box gardening will during the ensuing season enter into the scheme of decorations which will be rife in town and village alike I have not the smallest doubt; hence the subject must be given some consideration while there is time. It will, too, be in the very nature of the thing that decorated window-boxes in the national colours should be at their best during the height of the Coronation festivities, so that the amateur, apart from giving special attention to the cultivation of suitable plants, will of necessity have to exercise not a little judgment so far as the flowering of the plants is concerned. With so profuse a flowering subject as the Paris Daisy, or white Marguerite, no difficulty will arise; but with the Zonal Pelargonium in white or scarlet the case may be slightly different. Those amateurs possessing a greenhouse will, however, be in a position to adjust matters, and with the removal of the majority of the bedding plants from the structure, the plants for the window-boxes will be afforded their opportunity.

SELECTING THE PLANTS.—One important matter should, however, receive immediate attention, viz., that of selecting the finest plants available. Should no specially large examples be found among the ordinary bedding plants, arrangements should at once be made for a limited number, so that they may be given the requisite shift into 5-inch pots. Such plants as those one has in mind should be encouraged to make a free growth, their flower-trusses being removed as they appear until the middle of May. Thus retarded in their flowering, a better growth will be secured, to the advantage of the plant at a later season. For those possessing the means as well as the space a double set of plants might be used, the one to be at its best on the first day of June—Coronation month—to be superseded by another group a day or so before the actual event.

THE CHOICE OF PLANTS capable of affording the national colours is not great, and for window-box decoration in particular is even more limited. White Marguerites, white and scarlet Pelargoniums and blue Lobelia are among the subjects for first choice, while white and scarlet tuberous Begonias, with Ageratum or Lobelia, would also be available. The two last-named groups of plants are of the profuse flowering order, and little or no difficulty will be experienced concerning them. The Begonias, on the other hand, should of necessity be of large size if they are to give a display worthy of the occasion as well as themselves. One of the few subjects providing the whole of the national colours is the Sweet Pea, and the plants of these, if pot-grown on a liberal scale, would do admirably if arranged in boxes for forming a sort of flower-screen from the upper windows or from any prominent balcony. Of necessity the plants so placed would require unremitting attention, failing which the thing had better be left alone.

TOMATO PLANTS.—The best place the greenhouse provides for these is a position on the sunny or south side of the house and rather near the glass. If early fruits are desired, the plants should be grown and fruited in 8-inch or 9-inch pots. The soil mixture should be moderately dry at the time and made quite firm about the roots. Excessive soil richness and soils that are loose about the roots of the plants are opposed to successful fruiting, and should be avoided. Much root-applied moisture is likewise calculated to promote a luxuriant leaf-growth, the invariable forerunner of grossness, a synonym of unfruitfulness. These same conditions are likewise responsible for the loss of the first truss of fruits, the flower-buds usually turning yellow and falling off. S. N. N.

GARDENING FOR BEGINNERS.

PRICKING OFF AND POTTING UP TOMATOES.

IT is well to remember that the cultivation of Tomatoes under glass is generally far more satisfactory than by any other method. The beginner, by the aid of a glass structure, even though the latter may be of a temporary character, is largely independent of unsatisactory or abnormal climatic conditions, and may, herefore, grow his plants with the sure prospect f a satisfactory issue.

When grown outdoors there is a considerable sk of failure. In most gardens outdoor Tomatoes ave done very badly during the last two years; he absence of sun and the general unsatisfactory tate of the weather have militated against success. nly in very favoured quarters is it wise to grow he plants in the open. The Tomato should be rown outdoors where there is a warm aspect, gainst walls or fences, or even against the walls f the dwelling-house. Unless positions of this haracter can be allocated to the plants, we would e disposed to cultivate the Tomato under glass. n a normal season and during the summer months f warm, sunny weather, the Tomato can be grown uite successfully in rows in the kitchen garden; ut it is the uncertainty of our English summer eather that entails a great element of risk to those ho make the attempt. The plants may be grown atisfactorily in cold frames and pit frames, and hose who possess these invaluable adjuncts of he garden should certainly put them to this urpose.

Already beginners and others have sown their omatoes under glass, and as the seeds germinate uickly, the pots, pans or boxes in which hey were sown are now filled with recently-eveloped seedlings. It is customary to sow the eeds in a compost that is light and sandy. uccessful growers make up a compost of equal arts of loam and leaf-mould, and add to this oarse silver sand rather freely. The seedlings ay be raised very successfully in a compost of hree parts of leaf-mould and one part of loam, ith a fair amount of silver sand added. Some growers make their first sowing in January, and other sowings are made in succession in large establishments until April for producing results during the same year. The great mistake made by the inexperienced grower is that of sowing the seeds too thickly. An experienced market gardener or nurseryman can deal with seedlings raised in this unsatisfactory way quite easily, because either of them has the necessary facilities for dealing with the young plants quickly, and as growth is very rapid in their early history, the pricking off and repotting must always be done very promptly. In Fig. 1 a box of seedling Tomatoes that are quite ready to be dealt with is shown. Delay of a few days would cause the young seedlings to deteriorate and become attenuated and weak, unless cold frame treatment can be accorded, and such conditions are hardly desirable for seedlings recently raised in heat. A careful inspection of the box of seedling Tomatoes in Fig. 1 shows all too clearly their crowded state. This is quite a common practice in market gardens. As a matter of fact, the photograph was taken in the establishment of one of the most successful Tomato-growers in the United Kingdom. At the back of the picture there are depicted two young seedling plants lifted from the box of plants immediately in front of them. These seedlings should be lifted without destroying the roots more than can be helped, and be pricked off into other boxes of a similar character. Boxes 15 inches by 10 inches, more or less, and about 2 inches deep answer the purpose admirably. Crock carefully and use a compost similar to that already prescribed. Those who have pots and the necessary accommodation at this period should pot up the young seedlings, first individually into 2½-inch pots, and so soon as these small pots are full of roots, transfer the plants to other pots 3½ inches in diameter. Subsequently repot into 6-inch pots, and finally into their fruiting pots, these measuring 8 inches, 9 inches or 10 inches in diameter.



1.—A BOX OF SEEDLINGS READY FOR PRICKING OFF.



2.—SEEDLINGS A SHORT TIME AFTER BEING PRICKED OFF, AND A YOUNG PLANT POTTED UP.

When potting up the seedling plants, adjust them so that the seed-leaf is just above the surface soil and pot moderately firmly. Fig. 2 portrays a box of seedling Tomatoes pricked off in proper manner, and this system has advantages where a large number of plants are required and where space under glass is limited at this period. So long as they are dealt with promptly when they are ready for the next shift, and are not allowed to become overgrown and crowded, the young plants will do very well. In the same picture are shown a young plant lifted from the box and one of a similar character potted up into a 3-inch pot. They both appear to be quite satisfactory, and respond kindly to treatment carried out on the lines indicated. When watering seedlings and young plants, see that the temperature of the water is equal to that of the glass structure. Stand the plants on shelves near to the glass, and by careful ventilation encourage and maintain a sturdy form of growth. It is not wise to keep the temperature too high; in the early stages it should be 65° to 70°, and later 55° to 65°.

D. B. CRANE.

HOW TO RAISE GREENHOUSE PRIMULAS.

THE earliest Primulas are raised from seeds sown in February, and duly potted on for flowering purposes in the autumn. A beginner should, however, wait until the latter part of spring if he wishes to succeed in the growing of these plants for winter and early spring use. The Primula does not require a very high temperature, in fact, it is oftentimes a difficult matter to keep the surrounding temperature in summertime cool enough for their well-being.

Fill several 6½-inch flower-pots nearly up to their rims with the following compost: Fibrous loam, passed through a quarter-inch-mesh sieve, and sweet leaf-soil, treated similarly, in equal proportions; wash and dry some coarse sand, and to a peck of the above two ingredients combined add a 7-inch potful of the dry sand. Drop the seeds 1 inch apart on the surface of the soil, so that in due time the most forward seedlings can be lifted out without unduly disturbing the more

backward ones. The seeds always germinate rather irregularly. Place the pots in a warm corner in the greenhouse, and shade slightly from light and sunshine until the first seedlings appear; then gradually expose all to the full light. When water is required, gently immerse the pots in tepid water until the surface soil begins to darken with the rising moisture. Transplant the seedlings 2 inches apart round the edges of other pots filled with compost similar to that used for sowing the seeds in; but when the plants are potted separately add some rotted manure and old mortar rubble.

Grow the plants in a cool frame with a north aspect throughout the summer. Water carefully, syringe lightly occasionally, give plenty of air, allow the plants ample space, and frequently rake over the bed of ashes so as to keep the surroundings sweet and clean. SHAMROCK.

DAFFODIL NOTES.

FOLLOWING up my notes of last week, I come to the very beautiful collection of novelties which were exhibited by Mr. A. M. Wilson on the 11th inst. His exhibits differ from all others, just as his little bulb lists do, in that they consist wholly of new varieties and a few of the very best of those which have more recently been put into commerce. Here, standing in front of such a collection, one gets a splendid idea of some of the latest things in the Daffodil kingdom. The morning is the time to see his flowers, for there are early birds about who have a knack of picking up some of the best and walking off with them to feather their nests; but not before they have left behind something that, sooner or later, will turn into gold. Nearly all the varieties are under numbers; but this is unavoidable. All the same, it is unfortunate for those who have to be content with reading the descriptions and who cannot see the actual blooms. A greatly-improved Barri conspicuus is 625—N, and 183—H is a beautifully-formed Leedsii, suggesting the well-known and never-to-be-forgotten flower Diana, which was one of the favourite flowers of that great judge, the late Rev. S. E. Bourne. The 149—H is similar to that grand rich yellow Buttercup, but it is a trifle paler in colour and has a stiffer and more Tenby-like perianth. Conqueror is a truly great flower; I think I would place it almost at the head of the bicolor trumpets. It has size (perianth 4¾ inches and trumpet 2 inches long and 1¾ inches wide at the brim); it has substance and form; it has refinement; and it has harmony of colour, in that the strong yellow of the old type of Empress has been replaced by a more primrosy shade and the dead white of the perianth has become a pale cream.

Hon. Mrs. Franklin is one of the Pearson "White Queens." It is about the pick of that bunch—with a large 4-inch white perianth placed at right angles to the cup. Bernardino may justly be called "a grand flower"; no one should be without it who can run to the necessary guineas which are required by hard-hearted dealers before they will part. It has a first-rate constitution, and is vigorous and free in its growth. I can now speak from experience, as this is the third spring that it has bloomed in my garden. Cœur de Lion is a large incomparabilis, with a good deal of the look of Castile about it. Cornopean is a soft-coloured bicolor, with a more than usually turned-back edge to its trumpet. It is a fairly large bloom, with a perianth 3½ inches from tip to tip. Crœsus has been referred to last week as a splendidly large, all red-eyed incomparabilis. Icicle is a curiously-shaded Leedsii; both perianth (3½ inches) and cup have a pale greeny primrose tone, which appears to intensify with age. Lolah is a good, effective, creamy white trumpet, with a campanulate perianth.

THE PROPOSED NATIONAL DAFFODIL SOCIETY.—I have been asked many times within the last few days what is being done. As far as the establishment of such a body, nothing. On the other hand, the Narcissus committee of the Royal Horticultural Society are taking steps to get into working order, and a sub-committee of selection, consisting of the chairman (Mr. E. A. Bowles) and two of the vice-chairmen (Mr. J. T. Bennett-Poë and the Rev. G. H. Engleheart), met on the afternoon of April 11 to choose a "schedule" sub-committee and a "publication" sub-committee No doubt more information will be forthcoming at a future meeting.

NUMBER OF FLOWERS FOR AN AWARD.—Whatever the reason is, there are very few flowers nowadays presented to the committee for awards. A suggestion has been made that the eight blooms which are now requisite to entitle a variety to be brought before them for an award of merit should be reduced to five, and a motion to this effect is to be proposed on May 9. I would like to suggest that, in future, a painting of every variety so honoured, or which receives the still higher distinction of a first-class certificate, should be made, as is done with many of the new Orchids. Such a collection would be a permanent record of the Daffodils which were in favour at the times the awards were made, and so would be of great historical value for the garden historian of the future. JOSEPH JACOB.

WEED-KILLER *VERSUS* HOEING ON GARDEN WALKS.

IT is rather strange that even in these days people are met with who prefer the old and tedious method of hoeing gravel walks. A very little experience teaches how difficult it is to clear a walk of weeds (grass especially) with the hoe. The surfaces of the walks are also rendered uneven, and require considerable labour in raking and rolling to bring them to a good condition after the hoe has been used. Viewed from an economical point, the use of an efficient weed-killer is far cheaper than the labour required for hoeing or hand-weeding. There are miles of roads and walks which it would be next to impossible to keep clean without the use of some proved weed-killer. Sometimes the poisonous nature of the ingredients used in many of these preparations is objected to. With a little care in the matter no risk need be run in this direction. Personally, I have seen weed-killer used on various estates for the past twenty years without the least accident of any description. Of course, the precaution of storing away from children or domestic animals should be always observed. Should the poisonous nature be a matter which debars any persons from using weed-killer, they may purchase a non-poisonous preparation, which is largely used in some districts, especially where there are numbers of domestic animals, fowls, &c. The weeds should not be allowed to grow large before applying the preparation. In early spring, when the young weeds begin to show, a thorough dressing applied to the walks will be the means of destroying weeds, and, generally, the application will not need repeating throughout the summer. The surface of the walks should be moist when the weed-killer is applied. In the absence of rain, sprinkle them over with clear water. A hard, impervious surface prevents the weed-killer from penetrating where desired, and consequently waste and disappointment occur. This is not so important a matter when dealing with walks or roads which are situated on level or nearly level ground; but on hilly ground it would be a waste of time and material to apply the liquid to a dry, hard surface. It is needless to add that where live edging borders the walks, great care must be taken to avoid damaging this when the work is being carried out. Should there be any large weeds, such as Dandelion or Plantain, to deal with, cut off the tops and drop some of the liquid into the centre of their roots. Sprinkling overhead may not be effective with these strong-growing subjects. It may be urged that such weeds should not be allowed to become established. This is granted; but, still, from many reasons they are frequently found, and it behoves the gardener to deal with them in the most effectual manner. There is no economy in making the preparation too weak by the addition of too much water. The results will be disappointing. Dilute according to the instructions which are included with all makes of weed-killer sent out by reliable firms. It is wise to reserve a watering-pot for the purpose of applying the liquid. A special pot is on the market made for this purpose, and by its use the work may be carried out in a most thorough manner. On no account should vessels containing the liquid be left exposed, unless the operator is near at hand to avoid any possible accident to man or beast. COLIN RUSE.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 23, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Dutch garden paths (*Anxious*). — You might certainly plant the spaces with the more miniature of alpine plants, provided there is room for their introduction. The ultimate success of the work would depend upon the amount of soil available for the plants or whether the path itself is laid on soil on a concrete bed. If the spaces between the stones admit, they should be first raked out and a little soil mingled with sand or finely-sifted mortar rubble inserted, finally introducing small pieces of plants or seeds. Suitable subjects are Campanula pumila, C. p. alba, C. pulla, C. muralis, Thymus lanuginosus, T. Serpyllum coccineum, Arenaria balearica, *Dianthus squarrosa, *D. cæsius, *D. petræus, *D. neglectus, *Erinus alpinus, *E. a. albus, *Linaria alpina, L. pallida, L. hepaticæfolia, Silene acaulis, Sedum hispanicum, S. h. glaucum, S. dasyphyllum, S. corsicum, *Lychnis Lagascæ, Achillea tomentosa, Antennaria candida and *Aubrietias of sorts. If there are slightly shaded places, some of the Mossy Saxifrages might be used, while others of the encrusted set would do well enough at the margin where no treading is likely. Those marked with an asterisk would be best if introduced by means of seeds, the others in small pieces of plants.

Arranging a bed (*Amateur*).—You might arrange ite, yellow and purple Pansies in lines at A, B and C, d the red Calceolaria in the centre of the diamond, ging this around with Virginian Stock. The dwarf eet Peas you might employ in groups at the four corners, if you have an insufficient number of plants, alternate em with the large blue Pansy; that is to say, two of the nsy and two of Peas occurring at opposite angles. We e no place for the remaining plants, unless you plant ore thinly of the red Calceolarias, and arrange these to m a succession at the centre of the bed. The smallness the bed precludes any very definite arrangement, which not helped by the irregular number of plants you have your command.

Tulips (*H. C. N.*).—The bulb you sent was in ch a sorry condition that it would be unsafe to suggest single cause as likely to meet the case. The bulb itself s badly split, as though subjected to injury from a fork other sharp tool. The stem growth gave the impression having been in contact with a mass of uncongenial tter to have caused the decay or mould of which you eak, while the leaf perforations might have resulted m the attacks of a small slug. Added to these things the fact that the bulb is of quite second-rate size, and d been but very feebly rooted. Indeed, we are strongly opinion that the failure to flower is due to weakness, inferior growth being due partly to the unfavourable nditions for ripening such things during the past two rs. If you are growing the Tulips in a bed where they ve been grown for years previously, a change of soil uld be given at the first opportunity.

TREES AND SHRUBS.

Cause of variegation in Camellias (*T. W.*).—It is impossible to say why the leaves your Camellias are variegated. Variegation is ite common among Camellias, especially when ey are planted out, and may be due to excessive gour. From the size of the leaves sent for examiion we should say that the general health of ur plants is good, and that you need have no use for anxiety on that account. It is doubtful ether you can do anything to check the varieion; but if you disapprove of it, you may, as often done in similar cases, remove the varieted branches as they appear. As a rule, quite fficient wood is formed to make up the deficiency. is doubtful whether the plaster on the wall has y effect on the leaves, for the same thing occurs bushes planted in the open ground.

njury to Ivy (*A. D.*).—Your Ivy is apparently acked by a bacterial disease known as Ivy canker, ough we had not sufficient material in what was sent to ke quite certain. You had better remove and burn all affected branches, or the disease will most likely spread the other plants which at present are quite healthy.

Arbor-vitæ 20 feet high (*A. W. M.*).—The ecimen sent for name is the Giant Arbor-vitæ (Thuya gata), also called the Red or Canoe Cedar. It will not to cut the tree down as you suggest, for, if it is not ed outright by the act, it will not recover so as to form presentable specimen. When a tree of this description grows its position, the only thing one can do is to move it and replace with some dwarfer-growing plant. is probable that a plant of Cupressus pisifera plumosa ea would meet your requirements.

THE GREENHOUSE.

Seedling Fuchsias (*G. G.*).—This is one of prettiest seedling Fuchsias that we have seen a long time, and one that the raiser might well proud of. The production of such a charming chsia fully bears out an oft-expressed opinion ours, that better results would be obtained by ploying some of the original species in the proction of new varieties than in continually ssing and recrossing the recognised garden ms. You do not state the parentage, but the ver somewhat suggests F. fulgens or F. triphylla ociated with one of the small-flowered kinds, h as F. bacillaris. We should certainly advise to bring this delightful Fuchsia under the notice some nursery firm that makes a speciality of -wooded plants, for, though as far as we know is quite distinct, there is the possibility of same cross having been raised by others. If know the parentage, we should be pleased to e it.

zalea not flowering (*E. C.*).—There are several ible reasons for the non-success in flowering your lea. In the first place, it may have been allowed to too dry before potting, and this would naturally lead to the plant behaving as yours has done. Next, after potting it may have been kept either too dry or too wet, the probable result in either case being much the same. Rapid fluctuations in temperature, too, would influence the lasting properties of the flowers. The blossoms borne by a plant that is established in its pot open much better and last much longer than in the case of a plant only just potted. It is possible that the plant that has given you so much satisfaction had been potted for a longer period than the other, and was consequently more established.

The best Pelargoniums (*X.*).—A selection of eighteen of the best is indeed a difficult matter, as a great deal depends upon the purposes for which they are required, and far more upon individual taste, as no two persons see eye to eye in such things. For greenhouse decoration the following include the very best of the single Zonals, and are, furthermore, quite distinct from each other: Ascott, deep salmon; Chatsworth, orange scarlet; Countess of Buckingham, deep rose pink; Duke of Bedford, rich red, small white eye; Hall Caine, cherry red; Lady Warwick, white, with a red margin round each petal; Lisbon, purple, shaded magenta; London, rich dark crimson; Mary Pelton, pale salmon; Mauretania, white, salmon ring round the centre; Mr. T. E. Green, clear orange; Mrs. Brown Potter, bright pink; Mrs. Charles Pearson, rich orange salmon, white eye; New York, brilliant scarlet, large white eye; Sir Thomas Hanbury, scarlet crimson, with a slight magenta shade; Sir Wilfred Laurier, magenta purple, shot scarlet, large white centre; The Mikado, soft cerise, very large flower; and Venus, pure white. Though the individual flowers are not of so good a shape as those of the above, yet that popular bedding variety Paul Crampel, with brilliant scarlet blossoms, is very fine when grown in pots. Eighteen good double-flowered kinds are: Bertha de Presily, soft satiny rose; Charles Gounod, scarlet, large white centre, shaded violet; Colossus, rich reddish crimson; Col. de Villebois-Mareuil, magenta purple; Double Jacoby, deep crimson; Daubray, fiery salmon; F. V. Raspail, deep scarlet; Fraichem white, with a Picotee-like edge of magenta pink; Golden Glory, orange; Gustave Lanson, deep salmon, with a purple tinge; Mme. Halimbourg, rose cerise; Mme. à Roseleur, rose pink; Mrs. G. Ashworth, white; Madeleine Lemaire, soft salmon; Olive Schreiner, white, margined red; Réné Bazin, orange salmon; Turtle's Surprise, deep scarlet; and W. E. Gumbleton, crimson, shaded magenta. Besides the class of doubles referred to above, there is quite a distinct section with very strong wood, large leaves and huge trusses of semi-double flowers. The first of this section, which corresponds with the *à gros bois* of the French, was King of Denmark, which is now exceedingly popular. The following are a good dozen of this class: Capitaine Flayelle, reddish crimson; Chavari Hermanos, vivid scarlet; Dr. Leon Petit, reddish violet; Fleuve Blanc, white; Gloire de Montchat, deep glowing scarlet; Gustave Emich, orange scarlet; King of Denmark, salmon; Mme. A. Mahieu, rosy lake; Mme. A. Bonfiglioli, white, pink centre; Mme. Laporte Bisquit, yellowish salmon; Rêve d'Ossian, blush; and Ville de Poitiers, light scarlet. In this country the Ivy-leaved Pelargoniums are exceedingly popular, eighteen of the best being Achievement, salmon pink; Beauty of Castle Hill, soft rose: Corinthienne, blush; Corden's Glory, scarlet; Galilée, rose; Gringoire, rosy purple; Hector Giacomelli, blush, blotched crimson; Jeanne d'Arc, very pale lavender; Leopard, lilac pink, crimson blotch; La France, lilac; Mme. Crousse, silvery pink; Murillo, deep crimson; Princess Victoria, pale lilac; Ryecroft Surprise, salmon pink; Sabrina, scarlet; Souvenir de Charles Turner, deep pink; The King, dark cerise; and The Queen, soft salmon.

MISCELLANEOUS.

Size of croquet and tennis lawns (*J. G.*).—A full-sized croquet lawn is 35 yards long and 28 yards wide. There are, however, many modifications of this. The proportion of five to four is usually taken in making smaller lawns. A full-sized tennis lawn is 96 feet long and 31 feet 8 inches wide; but, of course, more space round about is needed, that being the size required for the court. Smaller grounds are, however, sometimes made.

Making leaf-mould (*A. M.*).—Good leaf-mould may be prepared by collecting leaves into a heap, either on the level ground or placed in a pit, and turning them over every three months. Should worms appear in quantity, a little fresh lime may be sprinkled among the leaves while turning is in progress. Oak and Beech leaves are the best kinds to use for leaf-mould. These two kinds may be used singly or mixed, but it is not a good plan to mix all kinds of leaves together. The mould ought to be ready for use in from twelve to eighteen months from the time of collection.

Seaweed as manure (*J. H. S.*).—Seaweed is esteemed as a manure owing to its richness in plant food and by its rapid decay after being dug into the soil. It is considered especially valuable in promoting the growth of vegetables which contain a lot of water in their tissues when matured, including Potatoes, the Cabbage tribe, Turnips, &c. It may also be used with advantage in mixing with soil for making Asparagus-beds. The manure is rich in potash and soda compounds, but poor in phosphates. It is much improved as a manure for any crop by the addition of a little bone-meal at the time it is dug into the soil.

Carnations for exhibition (*W. H.*).—Your question is a little vague as it stands. Please say whether you require Perpetual-flowering varieties or border sorts. If you are thinking of competing for a prize in any exhibition, it would be necessary that we should know something of the conditions; that is to say, whether the class is open, or whether selfs, fancies or Perpetual-flowering varieties are required.

Labour in garden (*Curious*).—So much depends on whether it is wished to have the highest and best culture carried out in the various departments of the garden. For this two men and a boy would be needed. If the owner, on the other hand, is not over-particular on these points and is content to put up with ordinary culture and maintenance, he could start with a man and a boy and see how they got on, and give extra help occasionally, if it was found that work was lagging behind, in busy times.

Pond weed (*H. G.*).—The proper proportion of copper sulphate to use for weed in a pond is 2½oz. to 10,000 gallons of water. That strength will not harm Water Lilies. It is a good plan to remove as much of the weed as possible now and then during summer. It may be done fairly satisfactorily by means of a punt and an ordinary wooden rake. By entangling the weed among the teeth of the rake it may be pulled out fairly easily. It is, however, a tiresome job, and a pond which once becomes badly infested is very difficult to clean.

Big-bud on Hazel and Black Currants (*F. B. and M. W. H.*).—The suggestion that the big-bud of Black Currants was the same as that of the Hazel has been made many times. This supposition is based upon the apparent similarity of the mites and of the results they produce. The mites, however, though very similar to one another, are in reality quite distinct species, that on the Black Currant being known as Eriophyes ribis, and that on the Hazel, Eriophyes avellinæ. They differ from one another in habits and in a few structural peculiarities, and there is no evidence to show that one mite can produce galls on both bushes; in fact, there is no doubt that there is no danger to Black Currants to be feared from bringing Hazels attacked by big-bud into the garden.

Window-boxes (*Britannia*).—There is nothing you could employ for the window-boxes of a more suitable nature than scarlet and white Pelargoniums heavily fringed with blue Lobelia, and for these some little preparation would be needed owing to the early date of the Coronation festivities. For the windows the scarlet may be in the centre with white on either side, and a heavy margin of Lobelia to trail over the edge. If the beds admit of a Maltese cross arrangement, the chief lines may be set out in scarlet and white Pelargoniums, filling the bays with masses of Lobelia. In the baskets Campanula isophylla alba and C. i. Mayii could be used in conjunction with scarlet Pelargoniums or tuberous-rooted Begonias and Lobelia. The plants that afford these colours in their most striking form are not numerous, and the date is too early to ensure annuals flowering with certainty unless specially grown, and it is getting rather late in the season to do this now.

The preparation of night soil (*Semper Fidelis*).—Possibly the best thing to do would be to run the urine and house-water into a tank which could be conveniently emptied, and to use the contents of this tank for watering vegetables, diluting it with water if necessary. The tank would cause the precipitation of the soil material, if any, and this could be dug out at intervals. Mr. Scott Moncrieff described an apparatus in which the liquid was run over ashes and exposed to the air, so that it became oxidised and harmless, but useful for watering plants with, in the Journal of the Royal Horticultural Society for March, 1909. This, we think, you ought to obtain. Particulars of the cost of such an apparatus could be obtained from Messrs. Herring, Chertsey, Surrey.

Names of plants.—*M. J.*—Scilla bifolia (blue), S. b. alba (white), S. b. taurica and S. sibirica (large blue).——*Miss M. C. E.*—Scilla bifolia and Primula Forbesii.——*Old Subscriber.*—Hyacinthus azureus and Symphytum bulbosum.——*F. F.*—Rhododendron forsterianum.

LEGAL POINT.

Market gardeners' compensation (*H. S.*).—The first statute dealing with market gardeners' compensation as distinguished from that claimable by an ordinary agricultural tenant was the Market Gardeners' Compensation Act, 1895 (58 and 59 Vict. c. 27). Its provisions, however, are somewhat implicated with those of the Agricultural Holdings Act, 1883. These statutes are now repealed, and their provisions are embodied in the Agricultural Holdings Act, 1908. As regards tenancies created prior to January 1, 1896, it has been pointed out that, provided the holding was on that date in cultivation as a market garden with the knowledge of the landlord, and the tenant had executed some improvement mentioned in the third schedule without having previously received written notice of the landlord's dissent, compensation could be claimed for improvements

executed before and after the Act, just as much as if it had been agreed in writing after the Act that the holding should be treated as a market garden. Some written arrangement was, however, recommended for certain reasons. The recent case of Kedwell *v.* Flint shows how important it is that a tenant from year to year who commenced his tenancy prior to 1896 should procure such written agreement if he wishes to claim for subsequent improvements. By Section 61 of the Agricultural Holdings Act, 1883, the contract of tenancy current automatically comes to an end on the first day on which either the landlord or tenant could by notice after January 1, 1896, have terminated the tenancy, and after that is deemed a tenancy beginning after the commencement of the Act, thus necessitating the landlord's written consent for subsequent improvements. So the unfortunate market gardener got his compensation for improvements executed prior to a certain month in 1897, and nothing for those executed afterwards.—BARRISTER.

SOCIETIES.

BRECONSHIRE DAFFODIL AND SPRING FLOWER SOCIETY.

THE annual exhibition was held in the Market Hall, Brecon, on Wednesday, April 19. The severe weather of this particularly trying season told its tale on the number and quality of the exhibits, and a stormy, wet afternoon depleted the usually very large attendance of the flower-loving public. Notwithstanding these drawbacks, the show must be pronounced a distinct success. It is impossible to imagine it otherwise so long as the vigorous and popular president, Lord Glanusk, is at the head of affairs and while the untiring and indefatigable secretary, Miss A. de Winton, occupies that all-important office.

In one respect this society is unique, viz., that it includes as part of the official programme of the day a lecture or talk on some points of interest connected either with the cultivation or the showing of the Daffodil. On this occasion Canon Fowler of the Royal Horticultural Society's Narcissus committee discoursed on its cultivation. He had a large audience to listen to him, and at the end received a very cordial vote of thanks for his able and instructive address.

The distinctive features of the schedule, which is based on the Royal Horticultural Society's 1908 classification, are the number of collections and the classes for specified varieties which it includes. There is but little doubt that the Daffodil spirit is abroad around Brecon, and it is shown in the keen but friendly rivalry of the competitions and the anxiety with which the judges' awards are awaited. The weakest part of the show was the "open," Class 1. Although there were three competitors, the quality of the blooms was not up to "open" standard. Mr. H. Gray was first and Miss A. de Winton second.

In Class 2, for thirty distinct varieties, the flowers staged were decidedly good, the silver flower-vase presented by Messrs. Barr and Sons going to the Hon. Mrs. Cowper-Coles, and the second prize to Miss A. de Winton.

In the section confined to residents in Breconshire and Radnorshire, the "collection" class of twenty varieties produced a very strong competition. Lord Glanusk was first with a delightfully fresh lot of blooms, including some very nice Hamlet. Mr. Gray was placed second.

Other prize-winners in the Daffodil classes were Captain Kidston, Mr. H. A. Christy, Mr. Carne Ross, Mrs. Morgan, Mrs. Lloyd, Lieutenant-Colonel H. Jones-Williams and Master Leo Williams (children's class). The King Alfred which won the first prize (Captain Kidston) in the single bloom class was very fine, and the Glory of Leiden (Mr. H. A. Christy) which gained the second was one of the largest we have seen, the perianth measuring just over 5 inches across. Mr. Carne Ross had a particularly refined little lot in the class for six small cups, and was specially commended by the judges. He had Castile, Minnie Hume (Crosfield's selection), Princess Mary, Elegance, Duchess of Westminster and Lucifer. Mention should also be made of Evangeline (first in large cups) and The Rival (second in large cups). Both were first-rate flowers. Captain Kidston may be a novice at exhibiting, but we did not see much sign of a beginner in his flowers. His collection (Class 17) was very good, and we have already referred to his King Alfred (single bloom).

In the spring flower section the premier honours were for the most part divided between Lady Salt and Lord Glanusk, but Mrs. Mitchell still retained her supremacy for double Violets. Lady Salt's little rock group (Class 24) was excellently arranged and looked very fresh and attractive. The early-flowering Tulips (four pots) were staged in a very pleasing manner which we do not remember to have seen before. The pots which contained the Tulips were surrounded by other pots of Ferns, and the flowers came up from a mass of greenery. Each variety was thus isolated and showed itself to the best advantage, and the bizarre effect which is so apparent in early Tulips was avoided. Miss A. de Winton was first with good, well-grown examples of Vermilion Brilliant, White Joost van Vondel, Mon Tresor and Rose Luisante. This last is an exceptionally pleasing kind for pots and a good doer.

Among trade exhibits, "Lissadell" staged a fine collection, which was awarded a gold medal. The bunch of Acme was most effective. Enid, a Leedsii, which is not so often seen, is a large, loosely-built flower with a 4-inch perianth and a cup three-quarters of an inch by three-quarters of an inch. The segments are long and almond-shaped. Queen Maeve is a big Poet, but not very smooth. Lady Arnott is like a small Torch, but with a redder cup. Phyllis is a taking little Leedsii with a pretty shade of apricot in the cup. Incognita was particularly good. It has a 4¼-inch perianth and an eye 1¼ inches across. It is a very fine thing indeed. Dorothy Kingsmill, Brigadier, White Queen and Cassandra were also to be noticed. Some new seedlings were included; one, a Poet, 190—07, was a first-class flower. It had a 3¼-inch perianth, very smooth and white, and the three exterior segments were of extraordinary width, being no less than 1½ inches from edge to edge.

Messrs. H. and W. Evans (silver medal) had a tastefully-set-up collection of alpines and herbaceous plants on a long table in the centre of the hall. We noticed some excellent Primula rosea and Primrose Miss Massey. There were also plants in pots of Morisia hypogæa, Saxifraga Clibranii and Stylophorum diphyllum. This last is a new Poppywort, we think, from China, of easy cultivation and liking a half-shady situation. It is increased by division.

The King's Acre Nurseries put up Darwin Tulips and Daffodils, and Mr. Quarrel of Brecon had a decorative exhibit so arranged as to be appropriate for the day—Primrose Day.

We are glad to note from the schedule that the finances of the society are in a flourishing condition, and that there are a large number of members. We would like to see more local societies like this up and down the country, and if they want to know how such a thing can be worked, we would say, "learn from Brecon."

NORTH OF ENGLAND HORTICULTURAL SOCIETY.

THIS society held the second of its series of monthly meetings and exhibitions in the Emmanuel Hall, Leeds, on Wednesday, the 19th inst. The hall was not quite so well embellished with exhibits as on the occasion of the first meeting, but, nevertheless, it was pronounced a great success. Among the visitors were Cassandra Countess of Rosse, Lady Kathleen Pilkington, Lady Lowther, Lady Blackett, Lady Peel, the Hon. Mrs. Jackson, Mrs. Fielder, Mrs. G. Wheler, Miss Law of Wetherby, R. F. Roundall, Esq., Reginald Farrer, Esq., Hastings Wheler, Esq., and Major Dent.

Messrs. Mansell and Hatcher, Rawdon, Yorks, were again to the fore with a beautiful exhibit of Orchids which occupied half of the central stage. Some of the most noteworthy plants included were Odontioda Jessopiæ (Odontoglossum Queen Alexandra × Cochlioda noetzliana)—the colour of this flower might be described as carmine shaded with magenta; Lælio-Cattleya G. F. Ball, a very rich apricot; Cypripedium bellatulum, C. leyserianum, (very good), C. niveus, C. Veronique and C. lawrenceanum hyeanum G. F. Ball's variety. This was a well-grown specimen, and the green and white flower harmonised well with its variegated foliage. Cattleya Schröderæ was represented by a few nice plants. Chysis bractescens, with its wax-like flowers, was good. A peculiar little flower was seen on a species of Megaclinium. Lælio-Cattleya Baden-Powell was very showy. The above plants and others were overhung with long festoons of Odontoglossums, including O. andersonianum, O. crispum, O. Rolfeæ and O. triumphans. The exhibit received a silver-gilt medal.

Messrs. Charlesworth and Co., Hayward's Heath, staged a nice collection of Orchids, which were conspicuous by the clear and brilliant flowers. Some good hybrids were in evidence. Odontoglossum Dora was pretty. O. Aireworth, which was the centre-piece, is a very taking flower and beautifully marked. O. Solan, O. Jasper, O. lambeanianum, O. crispum, O. ardentissimum, O. concinnum and Oncidium sarcodes were represented by long festoons on well-grown plants. A fine piece of Cattleya Schröderæ was included. A plant of Oncidium concolor carried two well-developed sprays of richly-coloured flowers. Cattleya Empress Frederick was showy; so also was Brasso-Cattleya Veitchii. A silver-gilt medal was awarded.

Messrs. A. J. Keeling and Sons, Bradford, had a nice little group, which included Cypripedium Sirius (C. hirsutissimum × C. Gomeri). This was a fine specimen, with two flowers on the spike. Brasso-Cattleya Queen Alexandra was good; so also were the Dendrobiums and Cymbidium insigne. Bronze medal.

Mr. Edward V. Low, Hayward's Heath, sent a pretty little collection composed of the following, among others: Cattleya luddemanniana, C. intermedia alba, Lælio-Cattleya highburyensis and Lælio-Cattleya G. F. Ball. Dendrobium chessingtonense, which has delicate apricot-coloured flowers, was pretty; so also were two well-grown plants of D. nobile virginale and one of D. Thwaitesiæ. Cypripedium aureum Surprise was good. Bronze medal.

Messrs. E. J. Batchelor and Sons, Harrogate, staged a large collection of Cinerarias. The plants were in excellent condition and carried immense heads of flowers, which have been raised from a choice strain. The colours varied from delicate pink to deep blue and purple. The same firm also showed a collection of Nephrolepis. A new sport, Batchelori, stood out as being something quite new, and even more feathery than the excellent forms previously in existence. It received the Northern Diploma first-class award. The exhibit as a whole was awarded a silver medal.

Mr. W. Shackleton, Bradford, showed some nice varieties of Cypripediums, including hirsutissimum, aureum Excelsior, a. pomona and an unnamed hybrid. Lycaste Skinneri, O. Pescatorei, white variety, and Dendrobiums were also in evidence. Vote of thanks.

Messrs. Aldis and Rowntree, Leeds, exhibited plants consisting of Narcissus Poetaz Elvira, Nephrolepis in variety and Juniperus bermudiana.

Mr. H. Hemsley, Crawley, erected a stand of very choice alpine subjects, which gave a pretty effect. Some of the newer introductions were Androsace carnea alba, Gentiana acaulis alba, Armeria cæspitosa, Primula ciliata coccinea, Potentilla Tonguei, Anemone Pulsatilla rubra, Primrose Pompadour and Ourisia coccinea. Among the flowering shrubs noted were nice specimens of Olearia nitida, Rhododendron racemosum, Gaultheria procumbens and Pyrus Simmondii. The whole was backed up with plants of Juniperus Hibernica, Retinospora obtusa nana and R. o. Crippsii. Silver medal.

J. H. Craven, Esq., Keighley (gardener, Mr. F. Corney), brought a meritorious collection of Orchids, which included Odontoglossums, Cattleyas, Lælio-Cattleyas, &c., and was awarded a silver medal.

The following awards were made by the Orchid committee:

Northern Diploma First Class.—Odontoglossum Jasper and Cypripedium lawreanceanum hyeanum G. F. Ball's variety, from Messrs. Mansell and Hatcher; and Cattleya Mendelii Dainty, from J. H. Craven, Esq. (gardener, Mr. F. Corney).

Northern Diploma Second Class.—Cypripedium niveum Oakdene variety, from Major Rogerson; Colax Charlesworthii and Odontioda Lairesii, from Messrs. Charlesworth, Hayward's Heath.

The following were the plant and floral committee's awards:

Northern Diploma First Class.—Nephrolepis Batchelori, from Messrs. E. J. Batchelor and Sons, Harrogate.

Northern Diploma Third Class.—Primula Auricula plena, from Mr. H. Hemsley, Crawley.

The scientific committee also met and discussed several matters. The suggested scheme for the education of gardeners and the establishment of certificates was deferred to the consideration of a special committee formed for the purpose.

In the afternoon Mr. H. Hemsley gave an address and demonstration in the Leeds University Lecture-Room on "Rock Gardens and their Formation." Several interesting views were shown on the lantern sheet depicting plants in their natural habitats on the Alps, and the demonstration on the laying of the stones, formation of pockets and planting of the subjects proved instructive.

PAISLEY FLORIST SOCIETY.

AN excellent spring show was held recently by the members of the long-established Paisley Florist Society in the Young Men's Christian Association Hall, Paisley, and was well attended by the members and the public. The schedule was a comprehensive one, and the entries and the number of exhibits shown were encouraging signs for the continuance of this annual event. Mr. T. Wilson led for six Hyacinths, Mr. D. W. Keir for three Hyacinths, Mr. H. Fraser for two pots of Narcissus and Mr. J. Bowie for Polyanthus Narcissi. Mr. Fraser was first for three pots of alpines with nice specimens. Mr. J. Houston leading for six cut flowers. Other leading prizes were taken by Mr. R. Benson (three pots of spring bulbs, two pots of Tulips, Primulas and hand bouquet), Messrs. H. Fraser, T. Wilson, D. W. Keir and others. Mrs. H. Fraser led for a bowl of Jonquils confined to ladies.

FOREST GATE AND STRATFORD AMATEUR CHRYSANTHEMUM SOCIETY.

FOREMOST among the horticultural societies in the London district which are doing good work in a quiet way is the Forest Gate and Stratford Amateur Chrysanthemum and Horticultural Society. The objects of the society are, briefly: "To promote and encourage horticulture generally in West Ham and district by means of lectures and exhibitions, and to assist in the support of the West Ham and Eastern General Hospital by devoting the balance at the end of the year to that institution." A sum of £261 15s. 8d. has already been given to the hospital by this society, which is probably the largest, and also the oldest, in the district, this being the twentieth year of its existence and the membership about 250, consisting almost entirely of working-men. The society is fortunate in having some good supporters, though, in common with other societies of a similar nature, these have fallen off during the last two or three years. A massive silver cup is given each year by the Duchess of Marlborough. Another handsome silver cup is also presented by Messrs. Barrie and Brown. This year the committee and executive are endeavouring to secure sufficient subscriptions for a Coronation challenge cup to perpetuate the Coronation of the King and Queen. Lectures and exhibitions are held monthly from May to October in the Centenary Hall, Field Road, Forest Gate, E., and in November (this year the 9th, 10th and 11th) an exhibition of Chrysanthemums and fruit is held in the Town Hall, Stratford, E. Considering the great interest now taken in horticulture and gardening generally, societies like this should have a great future before them. The society is fortunate in having some really good and hard-working officers, especially the chairman, Mr. Councillor E. W. Wordley, who spares no time or efforts to forward the interests of the society. The business is conducted by the committee, consisting of twenty members, with the chairman, vice-chairman and hon. treasurer. The secretary is Mr. A. E. Cresswell, 44, Albert Road, Leyton, N.E., who will be pleased to answer any enquiries or forward schedules.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE NATIONAL ROSE SOCIETY'S CONFERENCE.

A VAST amount of interesting and instructive information was given at the conference of the members of the National Rose Society, held at the Westminster Palace Hotel, London, on Tuesday of last week. This conference marked a new departure in the work of the society, and, judging by the number of members present and the enthusiasm that marked the proceedings, we think that a similar conference will be held each year.

The subject under discussion was "Roses for the Garden," the president of the society, the Rev. J. H. Pemberton, introducing it in a lucid and interesting discourse. After dealing fully with the suitability of the Rose for practically all purposes and the long period over which modern varieties can be had in flower, Mr. Pemberton wisely drew attention to the necessity for the Rose-grower to develop his or her powers of observation, a necessity that we have frequently had cause to advocate. The Rose family is an exceptionally large one, each branch of which requires its own special treatment; hence the failure of many otherwise good gardeners to grow really good Roses. Not until this difference is fully understood can the grower expect to get the best results from his plants.

Mr. Pemberton's most interesting remarks in relation to pillar or rambler Roses were those applying to the training of the shoots. In his opinion these ought never to be tied in an upright position, but rather allowed to bend over, so that the centre of the bush is left open for the unfettered formation of strong new basal shoots. This is to a great extent following the dictates of Nature, and is a phase of Rose-growing that is usually overlooked, yet it is one of vital importance.

In dealing with specimen plants for the garden, we were pleased to hear Mr. Pemberton denounce the hard pruning of such varieties as Grüss an Teplitz and Frau Karl Druschki, Roses that are, owing to their vigour, best left almost untouched, with the exception of an occasional thinning out of old wood and the removal of the unripe ends of the growths retained. The proper pruning of extra vigorous Roses is but little understood by most amateurs, and any information that tends to enlightenment on this point is welcome. In massing Roses for bedding effects, Mr. Pemberton would plant much closer than is generally done, rows 2½ feet apart and the plants 1 foot apart in the rows being the distances that he advocated. As Mr. W. Easlea pointed out in the discussion that followed, if this were adopted it would be necessary to prune hard, so as to keep the bushes dwarf and thus ensure a comparatively even display. Many amateurs will be glad to know Mr. Pemberton's cure for mildew, which is a simple one, and details of which we append herewith. Boil 1½lb. of Calvert's carbolic soft soap in 7½ quarts of water, then spray the plants with a solution composed of one part of the mixture to six parts of soft water. Cyllin soft soap was also advocated as a cure for this pest. It must, however, be fully borne in mind that to stamp out this disease it is necessary to commence spraying in spring, and continue with it once or twice a week throughout the summer and autumn.

We are not disposed to agree entirely with Mr. Darlington, who, in referring to new varieties, gave the five points in their order of merit that he considers essential in garden Roses. These were: 1, Form; 2, colour; 3, perpetual-flowering qualities; 4, fragrance; 5, constitution. Surely, in garden Roses, constitution, colour and fragrance should come before form. It matters little to the majority of Rose-lovers whether a Rose has a pointed or flat flower, so long as it is hardy, possesses good colour and is fragrant. Some criticism was evoked by Mr. Darlington including perpetuality of flowering as an essential point in a garden Rose; but we think the majority of those who grow Roses solely for garden decoration will agree with him. It is true that we ought not to discard those beautiful but fleeting Roses which we already have; but what we want from raisers are Roses, such as Carmine Pillar, that will continue to flower the whole summer. Mr. Easlea wisely suggested that an autumn-flowering variety should be planted in conjunction with such varieties as Carmine Pillar; and until we get perpetual-flowering forms of such Roses, this is, no doubt, the best way of overcoming their short season of flowering.

It was interesting to learn from such an authority as Mr. R. F. Felton that he regarded Mme. Abel Chatenay as the best all-round decorative variety, and that it is being sent in large quantities from this country to Paris

Mr. George Paul, V.M.H., did good service in advocating the use of such Roses as Grüss an Teplitz, Frau Karl Druschki and the Rugosa race in the shrubbery, where their vigorous habit could be allowed free play, and where they would provide flowers at a season when most of the shrubs would have finished their floral display. We have on several occasions noted the beauty and freedom of such Roses when grown in this way, and those who have shrubberies to plant would do well to give careful attention to the value of these types of Roses.

THE DAFFODIL AS A GARDEN FLOWER.

It is quite in keeping with the trend of public opinion that an effort should be made to popularise the Daffodil as a garden flower, and it is appropriate that the king of raisers, the Rev. G. H. Engleheart, should be the first to draw attention to this phase of the Daffodil. In his opening remarks anent the progress of the Daffodil, after the dinner given by Mr. Robert Sydenham in connection with the Midland Daffodil Show, a report of which appears elsewhere, Mr. Engleheart made out a good case for the retention of those new varieties which, though not up to exhibition standard, are nevertheless excellent for garden purposes. Mr. Engleheart made it quite clear that he did not in the least depreciate the refinement and form that were essential in the exhibition flower, but he thought there was some danger of good garden varieties being lost.

There have been indications for some time past that raisers are devoting their energies to the production of first-class exhibition flowers, many of which it is well known are practically worthless for the garden, and the sooner raisers realise the fact that the general public are the final adjudicators as to what they require, the better will it be for the progress of the Daffodil and all concerned. In these days of fancy prices and high ideals the ordinary mortal may well be excused for standing aloof from all Daffodils. It ought not to be difficult for such a society as that at Birmingham to publish a list of those varieties which, though not good enough for exhibition, are nevertheless free-flowering, of good constitution and possess good colours, and are therefore ideal for planting in the outdoor garden.

We think that raisers would also do well to carefully consider the advisability of naming new varieties similar in most respects to those already in existence. Already there are a number of varieties, particularly in the Poeticus section, in which an ordinary grower of flowers can detect no appreciable difference, and it seems probable that in a few years' time the large Daffodil societies will have to follow the lead of the National Sweet Pea Society and publish a list of too-much-alike varieties.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 8.—United Horticultural Benefit and Provident Institution's Committee Meeting.

May 9.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at three o'clock by M. H. Correvon on "Alpine Gardens," illustrated by lantern slides.

May 10.—East Anglian Horticultural Society's Meeting.

May 11.—British Gardeners' Association's Annual Meeting of London Branch.

The Horticultural Club.—The next house dinner will take place on Tuesday, the 9th inst., at the Hotel Windsor, Victoria Street, S.W. Mr. T. Ernest Waltham will give a lecture on "Glimpses of Morocco and the Canary Isles." The lecture will be illustrated by 100 lantern slides from photographs taken by Mr. Waltham, who will deliver his lecture in the national costume.

Gooseberry mildew in Norfolk.—The Norfolk County Council are adopting stringent measures to stamp out this disease in their county. The Inspector has met with several stubborn growers, and a few days ago the council had to bring before the magistrates Anthony Goodger, a fruit-grower of Emneth, which is situated in the fruit-growing fen district; for non-compliance with an order for pruning, &c., served upon him. It cost the defendant £2 1s. 6d. in fines and costs.

International Horticultural Exhibition.—The first meeting of the Norfolk county committee was held on the 27th ult. at the Royal Hotel, Norwich. Mr. Thomas H. Cook, The Royal Gardens, Sandringham, is local secretary, and tendered one or two apologies. Mr. John Green, Dereham, who is a member of the executive committee, gave a very interesting discourse upon what induced the formation of the scheme, and also upon the great amount of work already being done to make this 1912 exhibition the largest the world has ever known. The Norfolk committee intend to do all in their power to uphold the fame of their district.

Opening of Bargany Policies, Ayrshire.—The beautiful policies of Bargany, near Girvan, Ayrshire, are now to be open to the public under certain conditions during the summer months. A request was made by the Girvan Town Council to that effect to the proprietor, Mr. North Dalrymple Hamilton, and that gentleman has generously granted the concession, and instructed his factor, Mr. Inglis, to intimate the same to the Town Council. A limited number of visitors are to be allowed, and admission is to be by ticket. The privilege so kindly granted will be much esteemed by the inhabitants of Airdrie, and the boon will be a great one, the grounds being noted for their beauty and for the fine condition in which they are kept. Mr. D. Buchanan, the gardener at Bargany, is known as one of the best of the many good Ayrshire gardeners.

Rules of the National Rose Society. Previous to the conference in connection with the above society, a review of which will be found elsewhere, a special general meeting of the members was held at the Westminster Palace Hotel, London, on the 25th ult., to receive the report of the council on the proposed revision of the rules and bye-laws of the society, and to consider and deal with the same. The president, the Rev. J. H. Pemberton, pointed out that the whole of the alterations of the rules related to the methods of electing vice-presidents and officers, the aim of the council being to so arrange the elections that new blood might be introduced from time to time. The reason for calling the special general meeting was that the revised rules might be operative at the annual general meeting to be held in December next. Under the revised rules any member can make nominations, and voting will be by ballot.

Isle of Wight disease among bees.—The Board of Agriculture and Fisheries desire to inform bee-keepers in Great Britain that investigations are being carried on by their scientific advisers into the causes and characteristics of the disease among bees which has now broken out in many counties, and which originally made its appearance in the Isle of Wight. The Board would be glad to receive communications from bee-keepers whose bees have been affected by the disease, and who would be willing to supply information likely to be of service in connection with the investigations. A statement of the points upon which it is desired to obtain particulars would be sent on application. Information as to new outbreaks in districts only recently infected is especially desired. In certain cases specimens of diseased bees will be required. Correspondents are therefore requested to say whether they could send bees for examination. Bees should not be sent to the Board until asked for. Communications should be addressed to The Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rhododendron ciliatum.—This delightful Himalayan Rhododendron, so well illustrated on page 202, apart from its own intrinsic merit, claims recognition from the important part it has played in the hands of the hybridist in the production of new varieties. Many of the garden varieties so largely employed for greenhouse decoration are hybrids of R. ciliatum, while in conjunction with R. dahuricum it yielded R. præcox, one of the most charming of our hardy early-flowered Rhododendrons. Among the most popular of all greenhouse hybrids is the variety Countess of Haddington, the result of intercrossing R. ciliatum with the primrose-coloured R. Dalhousiæ, while the parents of Princess Alice are R. Edgeworthii and R. ciliatum. Again, the crossing of R. virgatum and R. ciliatum yielded R. multiflorum, a compact white-flowered variety, from which originated Queen of Dwarfs, an even smaller-growing plant. Other greenhouse hybrids show the influence of R. ciliatum to a greater or less extent, but enough is herewith given to indicate the large part it has played in the greenhouse hybrids of to-day. The main characteristics of R. ciliatum are its comparative hardiness, neat, compact habit and profusion of bloom, all of which are in its favour for breeding purposes. Another desirable point concerning R. ciliatum is that, as a rule, its hybrids flower in a much younger state than those of many other Himalayan Rhododendrons.—H. P.

Flowering trees.—Although the abundantly-planted Almond carried this year a splendid bloom, it was unfortunate enough to be severely injured by the spell of cold and frost which visited us just then. No doubt when the Almond was so largely planted, little was known of the great wealth of beautiful flowering trees which now exists to speedily follow. Thus we see that gloriously-coloured flowering tree, the double-blossomed Peach, in remarkable beauty. So also is the pink Prunus triloba flore-pleno. Cerasus Watereri is in glorious beauty. There is a tree of this Cherry near Surbiton Station which commands enthusiastic admiration just now. It is a

ss of pink bloom. Cerasus J. H. Veitch, per in colour, is following. The white Amelan-er, or Snowy Mespilus, is also one mass of ver, likewise the old double white Cherry. The vering forms of Pyrus, again, are masses of rich al red colour. Following come the double k and scarlet Thorns, the diverse Laburnums, rlet Chestnut, Judas Tree, Catalpa and ers. Would that far more of these trees were nted in street forecourts. What a charm they uld give to those too severely dull and gloomy roughfares!—A. C. M.

Horticultural experiments. — Among ctical gardeners much coincident opinion will readily expressed in relation to the criticisms what are called horticultural experiments ch appeared on page 173. Apart from the onclusiveness incidental to so many of those alled experiments, there is the undoubted fact t horticulture as practised by the intelligent dener for many years has in a sense been one g series of experiments, yet based on experience practice, the product of many years of work successful production. Never at any time he history of gardening, in every branch, has it od higher than it now does, yet all its success its magnificent products have in the far larger ree been the work of the plodding practical ticulturist rather than of any mere theoretical erimenter. One of the chief weaknesses in tion to scientific experiment is the tendency set up theories that have perhaps but an ginary or self-conceived basis, and to seek to ke experiments and their results to support sustain those theories, whether sound or not. make experiments of practical value it should, , be mutually determined by some central hority what particular things needed investi-ng, and those things should be selected solely ause of practical value to horticulture. These ng determined, it should be the aim of every erimental station under the control of the tral authority to work out the needful experi-nts with a view to find a practical solution, at one station only, but in all the stations in parts of the kingdom. Were that done, really gible good might be effected, assuming that things experimented on had the production of ctical good in view—if, in the immediate ance certain experiments, in relation to fruit and bush bloom, undertaken simultaneously h reference to ascertaining how far insect or ficial action promoted fertilisation, how far t bloom contained within itself the elements ertilisation without external aid, whether some ieties of fruits were much more free pollen ducers than others and should be liberally nted in orchards to furnish the desired pollen, , not least, whether it was possible to create a in of fruit trees or bushes the bloom of which uld be unaffected by frosts. Of course, such eriments might have results of the greatest ue for fruit-growers if continued over a series years, or they might result in nothing useful. s well that the wide distinction which exists ween experiments and trials has been pointed Experiments are presumably the work of botanist or of the scientific horticulturist, who wish to support or refute certain theories, ful or the reverse. But trials are conducted he interests of the seedsman, specially, in the place, for his own information and interest, , in the second place, in the interests of the t body of gardeners, professional, amateur or ager, to whom the results of such trials come as uable help in selecting what they shall purchase sow or plant in view of securing the very best lts. All such trials merit our warmest support.

D

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS

Flower Garden.

VIOLETS.—Plants which were raised from cuttings last September may now be planted out on a border with an eastern or northern aspect. Put them out about 9 inches apart and 12 inches between the rows. During dry weather they must be sprinkled with water late in the afternoon, or red spider will soon put in an appearance. When the plants are well established, an occasional dusting of soot will help to keep this pest at bay, and will also act as a stimulant. If the soil is of a light nature, a top-dressing of manure from an old spent Mushroom-bed, or something of a similar nature, will be of great benefit to the plants during dry periods. The soil between the plants must be frequently disturbed with the Dutch hoe.

Spring Bedding Plants.—In some districts it is desirable to make an early start in the propagation of plants for next season's spring bedding. From the middle to the end of the present month will be late enough to sow seeds of the various kinds of plants used for this purpose. Most of them should be sown in fine soil on a border which is shaded during the hottest part of the day. Sow the seeds thinly in drills about 1 foot apart. Wallflowers, Polyanthus Primroses, Alyssums, Aubrietias, Silene, Pansies, Campanula medium (Canterbury Bells), Myosotis and Delphiniums may all be treated in this manner. Some of the choicer kinds of Aubrietias may be propagated from cuttings. These should be inserted in a light compost in boxes. Shade from bright sunshine till the cuttings are rooted. They must eventually be planted out in the reserve garden.

Plant-houses.

Chrysanthemums.—Repotting must be attended to before the plants become pot-bound. Most of the earliest plants may be placed outdoors in a sheltered situation; but some provision must be made so that a covering may be placed over them in case of frost. Keep a sharp look-out for black fly and take measures to eradicate it, or it will quickly spread. An occasional syringing with an insecticide is usually sufficient to prevent this troublesome pest from getting a footing. The plants must be given plenty of room, so that sun and air can have free play among them. Over-crowding is very favourable to the development of "rust."

Carnations.—Plenty of room must now be given to Malmaisons which are throwing up their flowers. Place neat stakes to support the flowers and remove the side buds. The plants will now be in need of more stimulants than hitherto. Clay's Fertilizer is an excellent manure for this purpose. Weak soot-water occasionally will also be of benefit.

Arum Lilies.—When these have finished flowering, they may be placed outdoors and given a period of rest by gradually reducing the supply of water at the roots. Let the plants be exposed to the sun, so that the crowns become well ripened. In July or August they will be ready to be shaken out and repotted.

Azalea indica.—When these have flowered, place them in a moist, warm house to complete their growth. These plants are very subject to attacks of red spider. This pest may be removed by placing the plants on their sides; then give them a vigorous syringing with an insecticide. Any repotting which requires to be done should be deferred till the end of the summer.

Royal Gardens, Windsor. E. Harriss

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Bedding Plants.—The hardening of the numerous varieties of summer bedding plants that have been raised in heat must now be considered, as if left in warm houses after this time they are apt to become drawn. The hardening off process should be done gradually; but if the weather proves to be mild, they may be moved directly from warm vineries to cold frames without any danger if precautions are taken to have the frames well covered with mats at night and to admit air sparingly during the first few days.

Dahlias.—Young plants raised from cuttings should receive a shift into larger pots before they become pot-bound, and stakes provided as soon as the plants require support. These should be moved to cold frames as soon as the weather will permit, and when all danger from frost is past remove the sashes entirely. Some difficulty may be found in getting frame room for all those plants which have been accommodated in houses that are now required for other purposes, so that it may be necessary to erect temporary shelters rather than risk them out in the open.

Tuberous Begonias.—These have now almost entirely superseded Geraniums as bedding plants, especially in the North. The latter are very disappointing unless in a hot and dry season; but the Begonia can be relied on to furnish a brilliant display even in the dullest weather. The tubers should now be put in to start. It is not advisable to have this done too early, nor yet to do so in a high temperature. Cold frames, with 1 foot of stable manure and leaves mixed together, afford just the right conditions in which to start them, damping and closing the frames early in the afternoon, and covering the lights with mats if frost is anticipated.

Kitchen Garden.

Runner and French Beans.—These may now be sown out of doors in most places, although in our district it is not safe to have anything tender above ground earlier than the second week of June, as we invariably have a few frosty nights about that time. Climbing French Beans are a decided improvement on the old Scarlet Runners in point of quality; and as a Dwarf Bean we have found nothing to equal Sutton's Evergreen for a heavy and continuous bearer.

Seed-sowing.—Beetroots, Salsify and Scorzonera may be sown at this time. The principal sowing of Broccoli should now be made, also successional sowings of Cauliflowers, Turnips, Peas and Spinach.

Planting Out.—Onions, Cauliflowers and Lettuces raised under glass may now be planted on well-manured and deeply-cultivated ground.

Fruit Under Glass.

Vineries.—Vines with healthy foliage and their fruits swelling freely should be stimulated frequently with tepid liquid manure or some suitable quick-acting artificial manure applied on the surface of the borders while watering is in progress; but where a good supply of liquid from the farmyard can be obtained, no other feeding need be given. As the sun's rays become more powerful, there may be some danger of the leaves getting scorched; but this can generally be avoided by careful ventilation. If, however, owing sometimes to faulty construction or inferior quality of glass, burning takes place, a light shading should be applied by means of a syringe or spraying-machine.

Thomas Wilson.
(Gardener to the Earl of Strathmore).

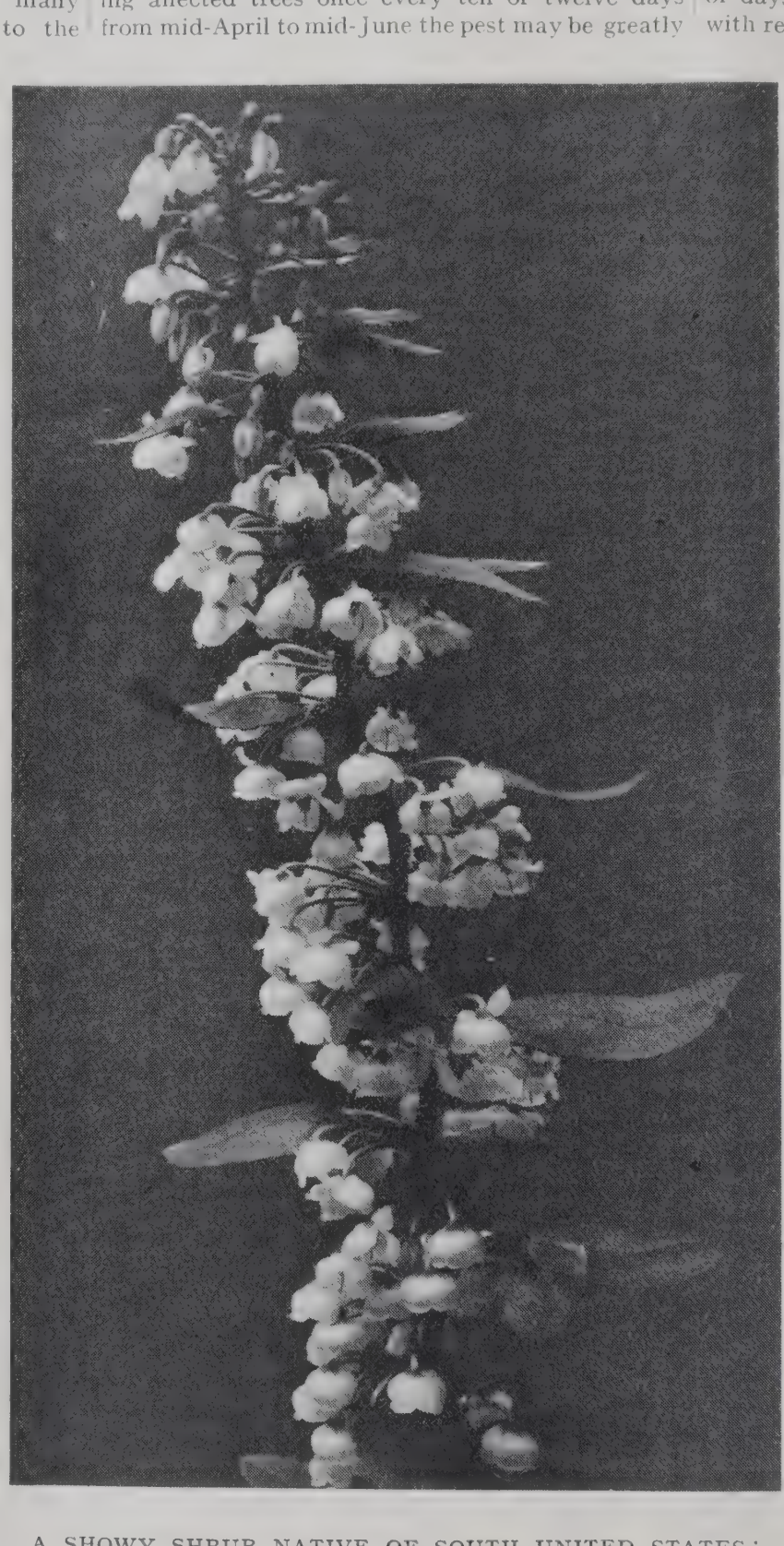
Glamis Castle.

TREES AND SHRUBS.

A BEAUTIFUL HARDY SHRUB.

(Andromeda speciosa cassinefolia.)

FOR some time Andromeda speciosa has been known as Zenobia, under which name it is still met with in many gardens. Andromedas belong to the Heath family, and it is therefore not at all surprising to find that the variety under notice, in common with other members of the family, prefers a peaty soil. On such a soil, and preferably in a damp, low-lying situation, this Andromeda will flower freely all through the summer. Its habit of flowering is well portrayed in the accompanying illustration, which has been prepared from a pot-grown plant shown this spring by Messrs. James Veitch and Sons, Limited, at one of the fortnightly meetings of the Royal Horticultural Society. The individual flowers are pure white, and resemble large pendent blooms of Lily of the Valley. The plant attains a height of about 4 feet, and in addition to its value as a hardy shrub, it is found to force well, when it will remain in flower for three, or even four, weeks during the early part of the year.



A SHOWY SHRUB NATIVE OF SOUTH UNITED STATES: ANDROMEDA SPECIOSA CASSINEFOLIA.

SOME TREE AND SHRUB DISEASES.

There are numerous diseases that attack trees and shrubs which by a little trouble and expense may be satisfactorily dealt with during May and early June, for it is at that period that some insect pests are most susceptible to injury from insecticides, while certain fungoid diseases, such as mildew, may be checked in the early stages by applications of various fungicides. As a rule, it is not advisable to use very strong washes at this period, for buds are bursting and new leaves and shoots are being formed, and these are more easily injured now than would be the case at a later date.

There are three washes which may be recommended for use at this period. 1. Paraffin and soft soap wash.—This may be made by dissolving 1½lb. of soft soap in boiling water, then adding 6 pints of paraffin and stirring the whole together to form a creamy liquid. When well mixed it may be made up to 36 gallons with clear water, well stirred together and used at once. 2. Arsenical wash.—This is made by mixing 2oz. of Paris green in 25 gallons of water. 3. Bordeaux mixture.—Several ways of preparing this have been recommended. The following, however, will be found satisfactory in the present case: Mix 12lb. of copper sulphate in 4 gallons of water, and in another vessel mix 8lb. of quicklime with water. Place the two together when dissolved, and make up to 100 gallons with clear water.

The first wash is useful for attacking various kinds of aphides, such as the Larch aphis and Spruce aphis. These two insects are now considered to be but different stages in the life-cycle of one kind of aphis, while the insect responsible for the gouty, cup-like swellings which frequently occur on Abies nobilis is also said to be due to the same, Chermes abietis. Its presence on the Spruce is very noticeable by the curious, small, Pineapple-like galls which follow an attack. The seriousness of the presence of aphis on young Larch will be at once recognised when it is remembered that the disastrous Larch canker fungus can only enter through wounds which are often caused by the punctures of this insect. By lightly spraying affected trees once every ten or twelve days from mid-April to mid-June the pest may be greatly reduced, and by repeating the spraying for two or three years it may be excluded from the garden.

The same wash may be used with effect in dealing with various scale insects which are often found on conifers, such as Thuya, Cupressus and Juniperus; while scale insects which infest Willows, Ashes, Lilacs and Pyrus may be attacked in the same way. The ugly yellow blisters frequently seen on Holly leaves are caused by the larvæ of the Holly fly. During late spring mature insects are about, and many may be destroyed by spraying with the paraffin wash.

The arsenical wash is found useful in those cases where caterpillars feed on the leaves. During June the caterpillars of the small ermine moth will be very noticeable by reason of their fine webs on the branches of Euonymus, Apple and other subjects. If not dealt with as soon as observed, they quickly defoliate a considerable area of leaf surface. One application of the arsenical wash, however, is usually sufficient to poison the foliage and destroy the caterpillars in the course of a couple of days. The same thing applies at a later date with regard to the buff-tip moth, whose caterpillars attack the leaves of many kinds of trees, especially Limes, and quickly cause havoc if steps are not taken to deal with them. Saw-flies are destructive in the larval stage on many trees, but they may be destroyed by poisoning the foliage on which they are feeding.

By spraying Roses at this time with Bordeaux mixture it is possible to ward off serious attacks of mildew at a later date, for it is at this period that the spores are laying the foundation for the conspicuous powdery stage which appears towards July and August. Batches of young Oaks and other nursery stock which were infested with mildew last year ought to be sprayed several times within the next few weeks with this mixture, which will probably check the reappearance of the disease. With one of these three mixtures it is possible to combat attacks of many of the commoner garden pests, and attention to spraying over a period of a few weeks may possibly mean the difference between healthy foliage and an unsightly diseased condition. All the washes recommended are inexpensive, and they may be made and applied with a small amount of trouble. As a rule, it is better to apply the various washes by the aid of a spraying-machine rather than with a syringe, as they can be more evenly distributed in a fine spray, which is usually all that is required, the soaking of the plant with the liquid being unnecessary, especially in the case of arsenical and fungus washes. D.

THE FRUIT GARDEN

THE AMATEUR'S VINERY IN MAY.

NOW that the month of May has come, the amateur Grape-grower will not be quite as anxious regarding the heating of the structure as he was six weeks ago. Although it is a much easier matter to keep up the temperature now than it was a few weeks ago, great care must be taken not to allow the young foliage to be frozen by sudden night frosts. Such frosts may come during the first half of May, and even if the leaves escape being frozen, a big check to growth would result. Of course, as the Vines increase in growth they will require more heat, and a higher night temperature will prove very beneficial; therefore the wise cultivator will see to it that the pipes are nicely warmed by sunset.

Amateurs who are growing Vines in cool houses must carefully watch the weather. On bright, sunny days the ventilators must be closed about 3.30 p.m., so as to husband some of the natural heat. It will not be advisable to sprinkle much water on the floor of such houses; but, still, it is

essary to lightly damp down the house at closing-
e, otherwise red spider will soon take possession
the tender leaves. In heated houses more
isture is needed, or else the insect pests named
l thrips, too, will prove troublesome.

VENTILATION.—This is a very important part
the work in connection with the cultivation
Vines at all times of the year, but especially
during the month of May. Early ventilation
ry morning is essential to success. A little
admitted before the sun shines strongly on
house disperses the condensed moisture from
ves and bunches, and if more air be admitted
he day becomes warmer, the Vines do not suffer
check. On days when the sun is obscured
times by clouds, the cultivator must be very
tchful, as it will be necessary to reduce and increase
amount of ventilation accordingly. It would
unwise, however, to entirely close the house,
some moisture would be sure to settle on the
ves, and then, if the sun shone clearly again
denly, a certain amount of scorching would
ult, even if the ventilators were quickly opened.
e safest way is to leave the ventilators slightly
n until the final closing of them in the afternoon.

THINNING OUT THE BUNCHES.—
there are more bunches on the
ng shoots than are required,
early removal of them will
ve beneficial to the Vines; the
ter should be freed from any
plus burden in their early stages
growth, as this will not only
engthen the Vines, but also the
ps retained on them. It is well to
ve the bunches as evenly dis-
ed on the Vines as possible;
if this act would mean the
ting off of certain good bunches,
not carry it out, but retain the
t bunches. Nevertheless, the
regate weight for each Vine
st not be exceeded.

TREATMENT OF VINES IN
OWER.—One can generally tell
ether Vines are in flower or not
on entering the vinery, as the
ssoms have a very agreeable
grance. A few flowers generally
n on one of the shoulders of
bunch first. Each embryo
ry is concealed under a cap:
en ripe the latter falls off,
ealing the tiny berry with its
til and stamens. The fertilis-
pollen is more abundant on
e varieties than others, and it
dries and acts in a lower tem-
ature. The moment, however,
first flowers open, less moisture
he house must be the rule until
berries are set and have com-
nced to swell; also it is advis-
e to maintain a slightly higher
perature for a time. The
ing of the berries must be
sted by artificial means. Every
rning, just before noon, the
tivator must gently tap the
nch which bears the bunch; a
rp but gentle tap serves the
pose of distributing the pollen
better than a thump, as it
e, as the pollen must only be slightly dislodged.
s careful tapping will be quite suffrcient for
setting of such varieties as Black Hamburgh,
resfield Court, Gros Maroc, Gros Colmar
Black Alicante; but Muscat of Alex-
ria and all other Muscats will require setting
with a camel-hair brush and, if available,
some pollen from other free-setting varieties.
The Muscat Grapes must also have about 8° more
heat than other varieties during the flowering
period, if this can be managed. While the Vines
are in flower refrain from removing any lateral
shoots; then gradually pinch them off as
usual. B.

FRUIT NOTES.

WATERING WALL TREES.—Neither in the fruit
nor in any other section of the garden do we
want to have to start watering before it
is absolutely necessary; but with trees on
walls a very sharp look-out is imperative, because
the bricks absorb so much moisture out of the
ground that the roots of the plants often have to
go short. This must not be if the finest crops of
the best quality fruit are desired. Examine the
soil at frequent intervals, and when dryness is
found heavily soak two or three times on succes-
sive evenings; and in the possible event of the trees
not making as much growth as one might desire,
supplement the pure water with weak liquid
manure. As soon as the border is made pleasantly
moist to a good depth and the surface has dried
sufficiently to permit of it, prick it over with a
fork; and if there is any short manure to spare,
spread it over to a depth of 2 inches.

INSECT PESTS.—It may be thought that it is
still too early to worry readers with reminders of
the enemies that will attack their trees before the
season is out; but some of these come in good
time, and it is wise to be prepared for their instant
extirpation. When the attack is made on two or
three flies or caterpillars it is not particularly
difficult to ensure their destruction; but when
there are an odd million or two the problem
assumes a much more formidable aspect. Those
of my readers who are well advised will get their
first blow in early, and thus save themselves
endless worry and, possibly, disappointment.

PINCHING CURRANTS AND GOOSEBERRIES.—
Before space is available in THE GARDEN for my
next column of fruit notes this important opera-
tion will probably be in hand. It is a simple task,
but one which favours the crop of the present
season and also those of the future at one and the
same time. As far as the immediate fruit is con-
cerned, this summer pinching does good by admit-
ting light and air, and thus favouring superior
size, colour and quality. In regard to the future
it is beneficial, because it concentrates strength
on the buds of the spur itself and discourages its
needless elongation. It is advantageous on all
forms of trees, but more especially so on cordons,
since these will become almost
valueless unless they are subjected
to the treatment. The rule ought
to be to pinch out the points of
the new shoots when they have
made six leaves, and subsequently
to pinch out all secondary shoots
to two leaves as soon as these are
formed.

FEEDING STRAWBERRIES.—There
is no disputing the fact that Straw-
berries appreciate abundant sup-
plies of food, and the man who
neglects to provide the necessaries
loses in the bulk and quality of
the crop. A certain quantity of
food is given when the mulching
of long litter is spread, but it is
rarely sufficient for two or three
year old plantations; these should
have more generous treatment.
Where the mulching material is
down, draw it away from the
plants, and if the weather has
been dry, give two or three heavy
soakings with pure water and
follow them with weak liquid
manure; or, in the event of the
latter not being conveniently at
command, wait until the surface
has dried a little; then prick it
lightly over, and finish by spread-
ing 1oz. of nitrate of soda to each
square yard. If this is not in hand,
use any complete plant fertiliser
that can be procured.

PEACHES STONING.—When
Peaches, Nectarines, Apricots and
Plums are perfecting their stones,
the demands which they make
upon the soil for lime are inces-
sant, and unless they are met,
the process will never be properly
accomplished and the crop will
result in partial or complete
failure. The grower must, there-
fore, see to it that there is plenty
of lime available, and if a shortage
is suspected, the sooner a dressing is spread
on the surface the better. The rains will quickly
wash it in, or, if the weather is dry, one or
two waterings will answer the same purpose.
Lime rubble can always be applied with good
results.

FRUIT-GROWER.



A VASE OF COLUMBINES WHICH HAVE BEEN GROWN IN A GREENHOUSE. (*See page* 214.)

THE GREENHOUSE.

AQUILEGIAS IN POTS AND VASES.

I WAS very interested in the article on Aquilegias in The Garden of January 28 of this year, and I can fully endorse Mr. Smith's advice about the wisdom of trusting to seedlings to give good plants, and also what he says about early sowing. The time to sow, in my opinion, is early February, and then, if the young seedlings are grown on without a check, they will make good little plants by early September, when I like to see them put in their permanent position in the border, so that they can make some new roots and get, to some extent, established before frosts come to give what to them must be a very unwelcome "lift up."

The long-spurred hybrids (A. cærulea hybrida) give an endless variety of colour, and if closely examined they will be found to differ considerably in form. It is the blending of these two traits that makes them so interesting and so charming. They are not grown half enough as pot plants. As such they are useful in their growing state for room decoration and as cut flowers. When produced under glass, they have a delicacy of tint which we do not get when they are gathered from the border. The arrangement on page 213 was made with glass-grown flowers, and is shown to give an idea of the charm of the Columbine as a flower for vases.

In growing in pots, I aim at having the plants potted in August, and then I stand them out of doors in a shady position where they will get no midday sun. Here they remain until frosts come in November, when they are removed into a cold frame and the dead and decayed leaves carefully picked off. Beyond protecting them from severe cold with mats and giving a very occasional watering, they require no care until they are brought into very gentle heat in early March. On no account must they be hurried. They do not like being bustled into flower, and resent it by only giving poor blooms. If, however, we exercise our patience and give them about six weeks to come to their flowering stage, their strength and healthy looks will amply reward us. I always use plants one and a-half years old; that is, plants raised from seed sown in February, 1910, will be used this autumn for potting. The largest ones I put singly in 7-inch or 8-inch pots, and the smaller ones three in 9-inch ones. This makes a fine show and gives plenty of bloom for cutting. If the top soil is removed after the growing season is over, and fresh put in its place, I find the same plants give excellent results a second season, and it is but little trouble to give them the requisite attention out of doors during the summer. If grown in a cool temperature as advised, very little difficulty will be experienced in their cultivation. So far as soil is concerned, any good, rich, light garden soil seems to suit them very well.

Joseph Jacob.

AN INTERESTING AROID PLANT.

(Lysichitum camtschatense.)

This is a little-known plant, and one that appears to have been quite overlooked in works on horticulture. The bold flowering clump shown in the illustration is taken from the Himalayan House at Kew, where this plant may be seen flourishing near the edge of a pool. An account of this species appears in "A Practical Guide to Garden Plants," by John Weathers. The author refers to it as "A noble-looking Aroid, native of the swamps of Northern Asia and America. It is a stemless plant, throwing up large oblong lance-shaped acute leaves 1—2ft. length, and 3—10in. across, from a thick horizontal rootstock. The leaves are sometimes spotted or mottled like those of the Dieffenbachia, a tropical relative. The stout flower stalk is 6—12in. high and bears a spathe with a broad sharp-pointed blade, and a spadix 3—4in. long. The flowers on the spadix are hermaphrodite and all fertile." The author goes on to say, "It is not yet in cultivation, but will doubtless prove to be perfectly hardy in marshy parts of the rockery or near the banks of lakes, streams, &c. It would probably produce seeds freely in our climate, and by this means could be readily increased."

In actual practice it is found to propagate quite freely by offsets, consequently there is no need to adopt the slower practice of raising plants from seed. There is only one known species of Lysichitum, although there is now a white variety in cultivation which is not nearly so strong in constitution. The type has bright yellow spathes which are very showy indeed. That the plant has proved hardy in our climate is shown by the fact that it may now be seen flowering outside at Kew. Even though it is a little-known plant in this country, it is the possessor of a common or popular name, for it is known as the Skunk Weed.



A LITTLE-KNOWN WATERSIDE PLANT: LYSICHITUM CAMTSCHATENSE.

MALMAISON CARNATIONS.

There is a special quality in a good Malmaison Carnation flower which has an irresistible charm, while a specimen plant in flower is one of the most beautiful plants that it is possible to produce. Perhaps in some low-lying, damp and foggy districts it is a difficult matter to produce healthy plants. If my memory serves me aright, I think I have heard that its cultivation for market purposes has been given up in some localities near London for this reason. Where the climatic conditions are favourable, the Malmaison may be grown to perfection by both amateurs and professionals. Some plants grown by cottagers which it has been my privilege to see have been perfect specimens, denoting good culture. I attributed their robust health to the fact that they had received no coddling. They were grown with the aid of a garden frame, being placed in a sunny window when the buds were well advanced. So many amateurs fall into the error of placing their plants in a hot, dry, badly-ventilated greenhouse. The Carnation is a plant which will not stand this treatment. It grows weak and sickly, falls a prey to disease and succumbs, or is thrown out in disgust. Clean pots, good drainage, and a good sweet loam (sterilised, if possible) free from wireworm, made porous by silver sand, must in the first place be secured. Where a quantity of plants are grown, a greenhouse should be devoted entirely to them. Wooden stages, where they exist, should be covered with slates and the plants arranged on these. Slate forms a cool base for the plants. Do not overcrowd. Use rain-water, and only afford this when the plants are in need of it. During winter, and also during summer, should dull weather prevail, avoid damping the foliage. In cases where the rust has given trouble, use Carvita as per instructions supplied with this excellent preventive. This gives a pleasing healthy gloss to the foliage. As the flower-stems commence to grow, lightly secure them to neat supports. The application of some approved fertiliser will assist in building up fine flowers. Rearrange the plants occasionally, lightly stir the surface of the soil and remove all dead foliage. Cleanliness is the keynote of suceess and must be strictly observed in the Carnation-house. Ventilate freely on all occasions. The ventilators should be partly open during the night, except during frost or strong gales. For supplying flowers during the winter months I have found the variety Baldwin to be excellent.

Colin Ruse.

THE FLOWER GARDEN

THE DUTCH GARDEN AT WEST HALL, BYFLEET.

THIS, one of the many pleasing features in the well-kept gardens of West Hall, Byfleet, the residence of F. C. Stoop, Esq., is a recent addition —or ought I to say an alteration?— and certainly is an instance where the design of the garden is well in keeping with the house. The site was originally planted with Rhododendrons, which, if my memory serves me correctly, did not flourish very well, and this garden, though only laid out as recently as five years ago, now looks as though it had been in existence nearly, if not quite, as long as the house. The latter is certainly not of recent construction, though it has been very materially added to and beautified by the present owner, who is not only a lover of his house, but of his garden also.

As may be imagined from the illustration, the garden is enclosed on three sides by a Yew hedge, the house itself forming the remaining side. This hedge is a very old one, and was of quite huge dimensions until taken in hand by the able gardener (Mr. G. Carpenter), who reduced it both in height and width, until it would now pass for quite a young hedge in the full vigour of its growth. The low parapet wall, all the stonework, fountain, sundial and examples of topiary work have that sense of proportion which goes to make such a pleasing whole, and great credit is due to the designer, or I believe I ought to say designers in this instance. The previously-mentioned wall is beautifully covered with suitable climbers, such as Roses, Pyrus, Clematis, Viburnum and Honeysuckle, and very rarely can one go into the garden without finding something in bloom on this wall.

The borders under the walls are planted with various classes of old-fashioned plants, and Primula japonica and a good collection of Helleborus flourish wonderfully on the shady side. The fissures between the stone paths are planted or sown with various dwarf-growing and creeping plants, such as Saponaria, Cerastium and Aubrietias, which in their season give a very pleasing bit of colour.

Many of the beds at this season are planted with Tulips, in each instance the early Tulips being followed by the May-flowering or Darwin varieties, which include such well-known sorts as Clara Butt, Mrs. Farncombe Sanders and Pride of Haarlem. Planted in this way they make a very fine show for quite a long period. Other beds are filled with various kinds of Narcissi, Wallflowers, &c., while all the beds of bulbs are carpeted either with double Arabis or Myosotis.

During the summer months the beds are filled with various classes of old-fashioned and sweet-scented plants. Annuals are largely used, and these are as well adapted for a garden of this sort as anything else; in fact, they look very much better than if the beds were planted with the stiffer classes of bedding plants. Zinnias, Phlox Drummondii, Marigolds, Stocks, Asters and Antirrhinums are the chief kinds used, and certainly the last-named are as much a feature during the summer months as are the Tulips in the spring, the delicate colouring of some of the varieties of Antirrhinums producing effects not easily beaten.

THOMAS STEVENSON.



VIEW IN THE DUTCH GARDEN AT WEST HALL, BYFLEET, SURREY.

HARDENING OFF YOUNG HERBACEOUS PLANTS.

THERE appears to be rather a common error among amateurs that young hardy plants do not require any hardening off before planting them out in the open. This is a glaring mistake, and one which frequently leads to the loss of valuable seedlings, even some which may have been newly purchased and which are put into the open for the first time, after having been propagated and grown on in heat.

It is unfortunate that so many of these hardy plants, especially those which are new or scarce, are propagated and kept in heat by some members of the trade. The exigencies of business and the call for rapid propagation frequently necessitate that these plants should be propagated by cuttings or divisions subjected to considerable heat. After they are rooted, the young subjects are often grown on in frames, generally slightly heated, or, at least, kept closer than they ought to be. This we may deprecate, but we must recognise that the propagators cannot well help themselves, as not only has the demand for these plants to be satisfied, but the narrow margin of profit which prevails in the trade calls for rapid propagation of mere fragments, in many cases, and this means that they must afterwards be grown on quickly so as to make them presentable when ready to be sent out. In consequence many of these plants are soft, tender, and unfit to be at once exposed to the vicissitudes of our climate, even comparatively late in spring.

So, too, with young plants raised at home from seeds in heat and carefully treated in their early stages, but not given sufficient air and light or hardened off by placing them in

colder structures before they are planted in their permanent quarters.

How frequently we see such tender subjects planted out in May or June and expected to stand a blazing sun during the day, with a drying cold wind or even frost at night, without the least effort to acclimatise them before submitting them to this ordeal. The consequence is that their growth is checked, and that many even may be lost, frequently from the blazing sun and the absence of the moist, genial air to which they have been accustomed. How, then, can we prevent this? It is easy to do so, although it means trouble. Plants received from nurseries in such a condition, and young plants raised from seeds or by division or cuttings at home, should be subjected to some hardening process, unless the weather is exceptionally favourable. Dull, showery weather will obviate much of the loss, and consequently at such times plants may be planted out with little preparation.

Some consideration and understanding of the needs of plant-life will prevent many losses, and a little judgment and care in hardening off these hardy flowers will often give much profit and pleasure to the cultivator.

When it is necessary to plant out these subjects in an unhardened condition—an emergency which may sometimes arise—a flower-pot tilted over them during the day will frequently prevent loss, but it should be so placed that sufficient air may enter, the pot being removed when dull, moist weather intervenes, and a gradual exposure to full air and light given to the plant.

Dumfries. S. ARNOTT.

TULIPA KAUFMANNIANA.

IF one could believe in the transmigration of souls of plants, surely the lovely Tulip in its last life was a Water Lily of unblemished character, but who disliked wet feet as much as a cat does. Now, in a reincarnation the large creamy white flowers possess much of the aspect of a Water Lily—in the long pointed segments and deep yellow throat, and the bulb enjoys a deep, warm soil and the sunshine of spring.



THE WATER-LILY TULIP, TULIPA KAUFMANNIANA, IN MR. E. A. BOWLES' GARDEN.

There are species of Tulipa that flower earlier in the season—such as biflora, for instance—but they are so small and Star of Bethlehem-like that one does not feel they are really Tulips. They were Ornithogalums in their last life, perhaps, and are slowly working upward, if one may continue the "make-believe," as children say. But this splendid species, in mid-March and onward into April, is a grand feature in a sunny border. All it seems to need is deep planting and leaving alone. I think the deep planting is the most important point in its successful cultivation, and 6 inches to 8 inches, if the soil is well drained, is my idea of deep planting. Messrs. Van Tubergen of Haarlem have been raising it from seed, and have selected a race of superior form with larger flowers and richer red markings on the outside of the segments. These selected bulbs are well worth the slight additional charge made for them, and a clump of six of them, planted three years ago and since untouched, are shown in the accompanying illustration. T. kaufmanniana was discovered by Dr. Albert Regel of St. Petersburg on the mountains that surround the river Tschirtschik, and was named in honour of General von Kaufmann, the Governor-General of the Province, and described in Regel's "Gartenflora," Vol. XXVI., in 1877. There are some fine varieties known with yellow or red ground colours, but the type form with creamy white ground colour is as lovely as any, looking less like florists' Tulips.

Yet it is but seldom that this opportunity offers. Advantage should, however, be taken of dull, showery days to put out the plants temporarily, or, if they are in cold frames, the lights should be left off in such weather. Even if the weather is dry and warm, plenty of air should be allowed about the plants to render them sturdy and hardy. In blazing weather a little shade, but not so much as to draw up the plants, will be good for them, and the north side of a wall forms a good position for these subjects. Watering should be thoroughly attended to, and the plants must not suffer from drought.

With regard to planting young subjects received from nurseries, such as small alpines, these ought not to be committed to their permanent positions in the open at once. Some experienced cultivators make a point of potting all such plants and allowing them to become established in the pots under cool treatment, and then put them out with as little disturbance of the roots as possible. In this way they have fewer losses than they would otherwise sustain.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

THE TOWN GARDEN.

THE POLYANTHUS.—Those who take delight in the pleasures of spring gardening should remember the exceeding value of this old-fashioned flower, as much for its homely simplicity and charm as for the ease and abundance by which it may be raised from seeds. Here, indeed, to the town-dweller and the amateur in general at least, is the key to that wide popularity it now enjoys, since the expenditure of a few pence or shillings may result in dozens or hundreds of plants—thousands should they be required—in a single year. Not only so, for the seedling plant of a year old is in the fulness and vigour of its youth, a period never again to be equalled, perhaps, so far as it concerns the superiority of its abundant flowering. Compared with the seedling plant, the divided example, particularly after the stress and strain of a great flowering, is an enfeebled thing, a thing whose youthtime has passed, never to return again.

NATURE'S WAY.—Then, again, apart from the value of the seedling to the gardener, seed propagation is Nature's own way of perpetuating the members of the vegetable kingdom, and in this every amateur should copy her teachings. Those who have never indulged in the Polyanthus before should make an attempt now by securing a packet or two of seeds and sowing them at once.

WHERE TO SOW.—The seeds may be sown in shallow, well-drained boxes containing fine sandy soil, or they may be sown in the open ground—and often enough preferably so—provided a sheltered, *i.e.*, shaded, spot is at hand. In such a place the ground should be well broken up, and some finely-pulverised manure added if such is procurable. Break the surface of the soil down finely by the use of fork and rake before scattering the seeds very thinly over the prepared bed of soil.

A SPECIAL VALUE attaches to the open-air seed-bed, since by the thin sowing advocated little remains to be done beyond keeping the plants free from weeds and fairly well supplied with moisture. Many gardeners of the old school so appreciated this fact that their seed-beds would be formed in the shrubbery or about its margins, where uniformly cool conditions were invariably present.

COVERING THE SEEDS.—Provided the suggestions thrown out in the preceding paragraphs are followed, the soil covering for the freshly-sown seeds is an unimportant item; that is to say, the seed of a Polyanthus is of considerable weight, and, despite the finely-pulverised surface of the soil of the seed-bed, it will find its way into the interstices of the soil and be quite content. In Nature, indeed, as well as in the experience of the gardener, the self-sown seed, which is never covered at all, invariably vegetates in a carpet-like mass, so thickly and abundantly as to demand early attention in transplanting if the majority of the seedlings are to be preserved.

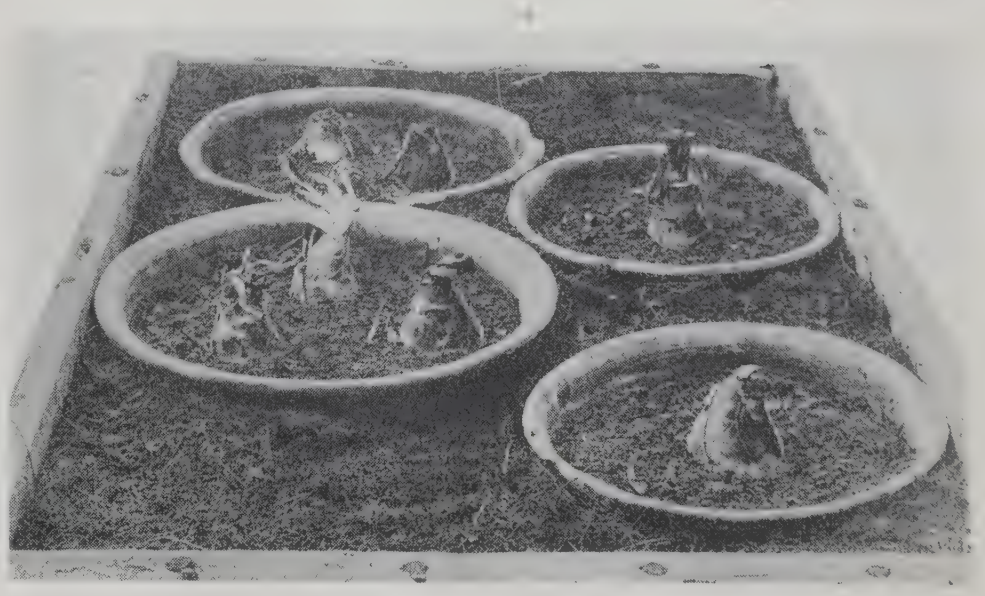
DEEPLY-BURIED SEEDS.—I make a point of emphasising this question of covering the seeds, feeling assured that a very large percentage of good seeds of all descriptions are lost each year owing to the soil covering alone; and by instancing the way in which self-sown seeds reproduce their kind in myriads I hope I have made it clear that the seeds of Polyanthus should not be covered more than their own depth, even if at all. A good watering after the sowing is a potent factor in putting the seeds into their places, so to speak, the more so with seeds uncovered by soil. Seeds of these popular plants are available separately in white, yellow, crimson and orange shades, while the Munstead strain embraces enough variety to please the most fastidious. S. N. N.

GARDENING FOR BEGINNERS.

POTTING TUBEROSES.

FEW beginners may be aware that the Tuberose is a half-hardy bulbous plant. This may be due to the fact that for so long this subject has been forced under glass, during the progress of which operation considerable bottom-heat has been utilised. The Tuberose is known to botanists under the name of Polianthes, and it is one of the sweetest of greenhouse flowers. The Tuberose is a native of Mexico, and was first introduced in 1629, so that it has been a familiar plant to gardeners for almost three centuries. Any reader who has a heated glass structure should certainly grow a dozen or two plants, as their blossoms are always so very useful for decoration. There are four varieties of the species—the double African, American, Italian, and a well-known kind, The Pearl.

The Tuberose is not a difficult subject to cultivate, although the flowers, of waxen appearance and exotic-like fragrance, may possibly lead some inexperienced growers to think that they require a stove temperature. Nothing of the kind. This subject may even be grown in a window with a warm, sunny aspect quite successfully. The varieties differ in their character, however, and need to be potted at different periods. For instance, the African kinds should be potted during October, November and December, and these will then come into blossom quite satisfactorily in the succeeding autumn. American or Pearl varieties are usually potted at any period during January to May inclusive, and in this way a succession of blossoms may be ensured over several months. I know of a most successful grower of these plants who prided himself on obtaining blossoms in September and even later. His method was to procure sound, strong bulbs, and without any artificial heat and by avoiding excess of moisture to grow them on carefully in a cool manner. A mixture of good loam and a little coarse sand was all that was required, and the bulbs were potted firmly. The potting was done early in May, when the bulbs were watered in and stood on a bed of ashes in a cold frame. Here they remained until roots were developed and top growths were evolving, when they were watered again. Watering should always be done most carefully, as excess of moisture at the beginning is a frequent source of failure. By cultivating the Tuberose in this cold method, growth is more robust. As the summer advances and growth progresses, the frame-lights may be ultimately removed and the plants plunged in Cocoanut fibre outdoors in a cool quarter of the garden at the foot of a wall or fence. In a warm season plants treated in this manner may be flowered very successfully outdoors, although I should be disposed to flower them in a cool greenhouse.



2.—METHOD OF PLUNGING POTS IN FIBRE.

The more orthodox way of cultivating the Tuberose is quite different to that described above, however. The tubers should be potted at frequent short intervals, so that as one series of plants goes out of flower another one is ready to succeed it. Even in the matter of potting the tubers opinions vary. The most satisfactory methods are those of placing one tuber in a 5-inch pot or three tubers in a pot 6 inches in diameter. The former method is generally considered the better, as when there is more than one bulb in a pot there is always the risk of the plants coming into flower at different periods. The soils should be well mixed, so that when roots are emitted they may be able to take full advantage of the plant food available in the compost. Carefully-drained clean pots should be used. Arrange the pot-sherds so that the drainage may be satisfactory, and cover the crocks with a piece of turfy loam or some of the rougher portions of the soil to prevent the finer particles of the compost from clogging the drainage. The bulbs should be embedded to about two-thirds of their depth. As soon as the first shoots appear, fill in more soil, taking care, however, to leave sufficient space for ample supplies of water to be given. Fig. 1 shows three examples of bulbs of the Tuberose and one bulb potted up into a 5-inch pot, also three bulbs adjusted in position in a 6-inch pot. Note how the bulbs are embedded only two-thirds of their own length.



1.—THE BULBS BEFORE AND AFTER POTTING.

Subsequent to the potting-up of the tubers the pots should be plunged to their rims in boxes or frames filled with Cocoanut fibre or spent Hops, and given one watering only until growth appears. The boxes and frames should be accommodated in a warm greenhouse, when bottom-heat can be provided—70° to 80° is the recognised temperature—until growth begins, after which the plants should be stood on shelves near to the glass, where a temperature of from 55° to 65° can be maintained while they are growing. During the flowering period 50° to 55° is a suitable temperature. Those who do not wish to force their bulbs in this manner should place the pots in a cold frame after the potting is completed, covering them with 4 inches of Cocoanut fibre and giving no water until growth begins. When growth has commenced, remove the plunging material, water moderately, and later on place the more forward plants in the cool greenhouse; this may be done in a series of batches. Fig. 2 shows how the pots should be plunged for forcing the bulbs. D. B. CRANE.

HARDENING BEDDING-OUT PLANTS.

ALTHOUGH the temperature under glass is not much higher, if any, than the outside temperature in summer-time, there is a great difference between the two temperatures at the present time. Bedding-out plants would spoil if they were retained in the hottest houses right up to the bedding-out season, and if put into the open air at once without some protection they would be badly crippled. So it is advisable to take pains to see that all the plants are gradually inured to full exposure. Some cultivators place covering material over the plants, but not at the sides; consequently a cold wind blows underneath and through the plants, and cold draughts at such a season and in the circumstances do much harm, checking growth seriously. In the absence of frost, even on cold nights, I would prefer to surround the plants with scrim or canvas protection and leave the top open rather than to cover the latter and leave the sides open. For some time after they are put out it is advisable to refrain from watering the plants overhead indiscriminately B.

DAFFODIL NOTES.

VINCENT SQUARE, APRIL 25.

THE NEW SUB-COMMITTEES.—At the meeting of the committee on the 25th ult., the names of those selected to serve on the publication and the schedule committees were submitted to the members and passed. I am unable to make them public until they have been formally approved by the Council. Doubtless their sanction will have been obtained before May 9, and the names will then be officially announced.

THE COMMITTEE'S AWARDS.—One first-class certificate and two awards of merit were given. The recipient of highest honour was a magnificent large semi-Poet, Miss Willmott. The Poet part of the flower was the slightly undulating pure white perianth, which, unfortunately, I did not measure, but it must have been nearly 4 inches across. The pale yellow eye is well proportioned, and for its size has a rather narrow red-rimmed edge. This is the "semi" part; there is a decided incomparabilis or Barri look about it, and yet the Poet influence can be clearly seen. I consider this to be a first-rate market and garden variety, and one which, on account of its size, will hold its own on the show-table. For house decoration it will be highly effective, as the two grand bunches of bloom submitted amply proved. Mr. Walter T. Ware is offering it to the trade for this season's delivery, so it is sure to appear in a good many dealers' lists this year. Those who want a good thing should try to get it. Awards of merit were given to Socrates and Queen of Hearts. The first is a well-named Poet, if ever there was one. The suggestion of power and massiveness which the old Poet's heads invariably give me seem to have their counterpart in the flower; I suppose largely owing to the well-defined extra deep red ribbon edge which surrounds the eye. The perianth is 3 inches across, round and of great substance. Socrates is an exceptionally impressive flower. Messrs. Barr and Sons have got in it something worth having. Queen of Hearts is a red-cupped incomparabilis, with a soft primrose-coloured perianth 3⅜ inches across and composed of wide, overlapping segments which seem a little inclined to "hood." The cup, which is entirely red, has a diameter of 1 inch, and has the solid look of such flowers as Firebrand, in contradistinction to the more liquid look of the red cups, such as we get in Blackwell and Torch. The flower, as a whole, has a soft and refined appearance, which is due to the proportion and harmony of its parts and the blending of its colouring. Mr. Bourne, who holds the stock, offers it in his list for ten guineas.

Although it was not up for an award, I cannot refrain from noting a flower of an entirely new type which Mr. P. R. Barr was kind enough to place before the committee. It was named Chameleon, and it was explained that it was a chance seedling from Apricot. To some extent it resembles its parent. It is about the same-sized bloom, and the trumpet shows a good deal the same shade of colour; but its exterior is a distinct yellow, very similar in tone to the perianth, which, instead of being composed of long and slender segments, is stiff and stumpy, like the indentations which habit has accustomed us to look for in diagrammatic representations of the sun. Some called it a sickly-looking thing; others thought it looked washed out. Personally, I did not share these views, and must confess to a sneaking liking for this colour curiosity, and think that with a background to suit it and not the very trying light of a sunny committee-room, some of its critics would change their opinion. Of one thing all were agreed, viz., that it was a break right away from anything we have seen up to now. Talking of novelties reminds me that Mr. C. Lemesle Adams had an Ajax in a box down in the hall with quite a pinky-looking trumpet.

THE GROUPS.—Although it was so near Birmingham, there were nine exhibits to be judged. That of Messrs. Barr and Sons received the highest award, viz., a silver-gilt Flora medal. It contained examples of many of the best seasonable varieties, both old and new. The firm's acquisition of the Rosemorran Gardens at Penzance has already borne fruit, inasmuch as it has lifted the old firm to the high position it undoubtedly should occupy at exhibitions. It was a capital exhibit. The only fault to find with it, if fault it was, was the introduction of a paler centre between the two ends of a darker green. It gave the whole a split-up look and took away from its general effectiveness. Doubtless it led wanderers to the gems of the collection; but I think Messrs. Barr will find that all who love Daffodils have sharp enough eyes to find them for themselves, if only there are any there. Socrates I have already alluded to. Cygnet, a pale bicolor Ajax, has a very distinct look, which is partly on account of its pale lemon, rather long and narrow trumpet (1⅞ inches long by 1½ inches wide), and partly because the perianth (4 inches) is very much at right angles in its setting. I admired the flower very much last year, and seeing it again now my good opinion is confirmed. Dresden is an all red, flat-eyed Poet of the round type. The segments do not overlap quite so much as in some varieties, and the eye (three-quarters of an inch) is large in proportion to the size of the flower (2½ inches in diameter). Minerva is one of the very round Poets, small as flowers go now, but cool and refined-looking, with greeny yellow, red-rimmed eye. There was a single bloom of the superb Challenger, the head boy of its class. Then there were Peter Barr, Lady Audrey, Marie Louise (very large all red cup of a brighter and paler shade than is commonly seen), Macebearer and many grand seedlings.

Mr. C. Bourne, Simpson, Bletchley, gained a silver-gilt Banksian medal, and had a fine lot of blooms displayed and elegantly arranged in large bunches. It is a pity he had not more space. The public cannot see flowers when they are too crowded. The Daffodil season is short, and I would respectfully urge that this fact should be considered by the spacing committee when they are making allotments. Hard by there was a long length of red Salvia, and, much as I enjoy and admire a mass at this season, I do not when the poor Daffodils have to suffer. After this growl, let me go on with my descriptions. The Queen of Hearts in the centre looked worthy of her new dignity, and she was nobly supported by Countess Grey (an exquisite triandrus Magni), Viscountess Falmouth (a fine starry giant Leedsii, very effective for cutting), Lord Muncaster (a massive yellow Ajax, although rather rough), Bernardino (that exquisite drooping ruddy apricot-cupped gem), Great Warley (the giant bicolor incomparabilis), Noble (the pale yellow giant incomparabilis), Castile and Southern Star (two splendid things for pots), Zenith (a beautiful small, wavy, white-perianthed, soft red-rimmed cupped Engleheartii), Whitewell (perianth of immense substance), &c.

Messrs. R. H. Bath showed their large Poet Laureate in excellent form. At its best it is a flower that takes beating. It is a rapid increaser, and for garden purposes just what is wanted. Marie Hall, their beautiful and graceful triandrus Magni, with its flat, right-angled perianth 3⅜ inches from edge to edge, pale yellow and white; Brilliancy, the giant Barri; My Lady, an exceedingly lovely white Ajax, the perianth (3½ inches) pure white and the trumpet 1¾ inches long by 1⅜ inches, delicately formed of the very palest citron; Matchless, what we should have classed in olden days as a medium-sized, round-shaped Burbidgei, with a white, undulating perianth and a good-sized soft orange and yellow cup; and Aspasia, the best of all the cheaper white-perianthed Poetaz, a plant no one should be without and everyone should grow, both in pots and in the garden, were included.

There was an interesting amateur exhibit from Mr. A. W. Merry, a fine lot of seedling trumpets from the Rev. G. P. Haydon, and some wonderfully-grown calathinus from Mr. James Douglas.

JOSEPH JACOB.

NEW PLANTS.

RHODODENDRON PENGAER.—This handsome and showy hybrid is the result of crossing R. Thomsonii and R. griffithianum (Aucklandii), the first-named being the seed parent. The original plant is now twenty years old, and has spent the whole of its life in the open garden; hence it is perfectly hardy. The flowers are of large size and of an intense crimson-scarlet shade. The truss is bold and the foliage handsome. Exhibited by the raiser, Sir John T. D. Llewelyn, Bart., Penllergaer, near Swansea. Award of merit.

Auricula Umpire.—A very handsome show flower referred to the scarlet self class, the marginal colour being of a rich velvet red, and the "paste" or central portion of the flower white. From Mr. James Douglas, Great Bookham, Surrey. Award of merit.

Primula obconica Chenies Excelsior.—A richly-coloured variety said to be a cross between P. obconica var. and P. japonica. In our opinion there is not the least evidence of any cross having been effected, though it is certainly one of the brightest-coloured varieties we have seen. Exhibited by Adeline Duchess of Bedford, Rickmansworth (gardener, Mr. J. Dickson). Award of merit.

Narcissus Miss Willmott.—A magnificent variety in every way, embracing the best attributes of the finest Poeticus and incomparabilis, having been raised from a cross between Gloria Mundi and a Poet's variety. Wedded to the great size of the incomparabilis is the more perfect circular flower of Poeticus, with all its purity, fragrance and refinement, the large, shapely crown being heavily margined with colour. It is reputedly a splendid grower—a plant of great vigour—and forces well; hence a meritorious all-round kind. The variety obtained an award of merit on April 30, 1907, and was now granted a first-class certificate. The honour was never better deserved. On each occasion the exhibitor was Mr. Walter T. Ware, Bath.

Narcissus Socrates.—A Poeticus pure and simple, a variety of great beauty, with fine petal character, the intensely-coloured rim of the crown rendering the variety at once conspicuous. From Messrs. Barr and Sons, Covent Garden, W.C. Award of merit.

Narcissus Queen of Hearts.—An incomparabilis variety of great beauty. The flower is of large size, perianth pale yellow or primrose, and rendered conspicuous by the big uniformly orange-coloured crown. A handsome variety, even in a setting of the best. Exhibited by Mr. Christopher Bourne, Simpson, Bletchley. Award of merit.

Odontoglossum Ramos Edwardii.—This is a handsome hybrid with a long and branching inflorescence. It was raised by crossing O. ramosissimum and O. Edwardii. The flowers are of a pale purplish hue, deeper at the base. Shown

Sir Trevor Lawrence, Bart., K.C.V.O. Award merit.

Dia-Cattleya Sanderæ.—As the name implies, s is a bigeneric hybrid. It is the result of a ss between the interesting Diacrium bicornutum l Cattleya Mendelii. The flowers are of splendid m, pale mauve pink in colour, and the lip is of cream shade, with golden throat. Shown by ssrs. Sander and Sons. Award of merit.

The foregoing were shown before the Royal rticultural Society on April 25, when the ards were made.

THE ROSE GARDEN.

SOME NEW FORCING ROSES.

WE are on the eve of seeing some very remarkable additions to our forcing Roses, and raisers are adopting the very laudable plan of well testing such elties, either themselves or by large mmercial growers, before they launch m into the open market. It was te a relief after what has been tten and said regarding Rayon d'Or see Mr. Prince exhibiting it in such d form as he did on April 11. I do say this will be a great addition to ing Roses, excepting as a pot plant; its wonderful yellow-brown colour lovely fragrance must command reciation, seeing such a colour is too rare among Roses. Lady Hillon increases in favour every time it own. It is grand in all ways, both olour, form and growth.

essrs. S. McGredy and Sons have a elty in Mrs. Amy Hammond that fair to eclipse Mme. Abel Chatenay. s a better grower, freer bloomer, has er and more pointed buds, and the ur it develops under glass is marous, the apricot shading giving the er a most wonderful brilliance. I ld advise all who plant out Roses er glass extensively, either for private or for commercial purposes, to secure variety when it is introduced in June, nquestionably it is a great gain.

rs. Geo. Shawyer is in some respects rior in bud to Lady Ashtown, rwise perhaps too near that variety e generally useful. My Maryland probably displace Bridesmaid and rney as pinks, for it is not only ter in colour, but of stronger th. With me every shoot of this produced a bud, and I look upon s a real good novelty, which we to our American friends.

hite Killarney will be a useful sort. ugh we could wish it had the snowy y of Frau Karl Druschki. I intend the white seedling of Caroline ut, Souvenir de L. Rose Vilin, as cer. I am inclined to think it will to be a valuable sort for this se.

e Lyon Rose is sure of a welcome y collection, and it is remarkable how it varies our under different treatment.

e of M. Pernet-Ducher's novelties of last year, ly, Beauté de Lyon, is in the opinion of some rs superior to Lyon Rose. Mr. Prince had it d form at the Royal Horticultural Society on th ult. The growth more nearly resembles d'Or

Lady Pirrie must surely become a favourite pot Rose. The enchanting tints will command general admiration, although the bloom is none too full.

Joseph Lowe is a Rose that has secured for itself a permanent position as a forced flower, whatever may be the ultimate destiny of it for outdoor growth. Personally, I think for outside work we need to get away from those Roses originating from Mrs. W. J. Grant, for their lack of robust growth is disappointing.

Polyantha Roses are much in the ascendent just now, and with two such fine novelties as Orleans Rose and Jessie, together with some of Herr Lambert's pretty introductions, this section should remain in good demand.

As a good forcing rambler we may probably not have a better novelty than Excelsa for some time. It is decidedly good. Shower of Gold, too, is very welcome by reason of its colour, which has hitherto been much wanting. That prince of rambler raisers, Mr. M. H. Walsh of Woods Hole, Mass., U.S.A., exhibited a charming lot of ramblers at the National Flower Show held at Boston, Mass., U.S.A., on March 25. Mrs. M. H. Walsh is a pure white rambler that has gained quite a reputation on the other side, and it is one that will be in large demand. P



NARCISSUS WHITEWELL SHOWN BY MISS CURREY AT BIRMINGHAM. MESSRS. CARTWRIGHT AND GOODWIN RECEIVED AN AWARD OF MERIT FOR THIS VARIETY.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER

FLOWER GARDEN.

Sweet Pea plant for inspection (*X. Y. Z.*).—The plant sent had perfectly healthy roots and lower part of the stem. The expanded leaves showed a rather curious mottling, due to the presence of minute patches of brown dead cells near the upper surface of the leaf. Similar small patches were present on the stem. The unexpanded leaves were perfectly free from the spotting. It is stated that the plants wither up in a few days. The one sent was quite unwithered. No insect or fungus was to be found upon the plants, and the injury appeared rather to be due to spraying with too strong a solution, or perhaps something is wrong with the water supply. We have known similar appearances to be due to allowing the air to become too dry after being moist. Is it perfectly certain that you have sent a plant which shows the premonitory symptoms of the trouble of which you complain? We feel confident that too much manure is mixed with soil in which seedling Peas are being raised in many cases. Here you have leaf-mould, horse-manure and wood-ashes.

Best twenty-four fancy varieties of Carnations for border culture and exhibiting (*X.*). — Alice Byron Stewart, King of Spain, Mrs. Fred Gardiner, Queen Eleanor, Renown, Charles Martel, Erl King (Martin Smith), Father O'Flynn, Gloriosa, Guinevere, Highland Lass, King Solomon, Lieutenant Shackleton, Robert Morton, Linkman, Lord Steyne, Mandarin, Millie, Pagan, Pasquin, Rhoda, Rony Buchanan, Sam Weller and The Nizam.

Best twenty-four self Carnations for border and for exhibiting (*X.*).—Agnes Sorrel (maroon), Ashantee (marcon), Brigadier (scarlet), Cardinal (scarlet), Daffodil (yellow), Duchess of Wellington (heliotrope), Elizabeth Shilfner (apricot), Ibis (scarlet), Lady Roscoe (blush white), Miss Willmott (coral red), Mrs. Eric Hambro (white), Sir Galahad (white), Bob Acres (scarlet), Hercules (crimson), Kate Nickleby (white), Mrs. Griffith Jones (apricot), Mrs. Robert Gordon (pink), Robert Bruce (apricot), T. E. Harwood (pink), Mrs. Geo. Marshall (crimson), Ellen Douglas (silvery grey), Lady Hermione (salmon), Mrs. Guy Sebright (rose) and Splendour (purple)

Diseased Ferns (*F. W. H.*).—On the enclosed fronds are decided traces of one of the forms of mealy bug or soft whitish scale, while the plants are also badly attacked with Fern rust. As the young fronds are just now on the point of pushing up, the present is a good time to take the plants in hand. Any fronds that are in a very bad state should be at once cut off and burnt. If the disease is very bad, it may be advisable to cut off all the old fronds and burn them; but if any are left on, they must be occasionally sprayed both on the under and upper surfaces with Abol or a weak solution of Condy's Fluid

TREES AND SHRUBS.

Propagating Andromedas (*Hawick, N.B.*). Cassiope (Andromeda) fastigiata and C. tetragona may be propagated by cuttings in the same way as Heaths. Take short cuttings, say, 1 inch to 1¼ inches long, from the points of the current year's shoots; trim the leaves off the lower half without injuring the bark, and insert the cuttings. Do not bury more than one-third of the cutting in the compost. As soon as a pot is filled, give a good watering and plunge in a close frame, either cold or with a little bottom-heat. The heat, however, must be very gentle. Cover each pot with a bell-glass, if possible. Watering is best done by soaking the pots in water until it rises to the surface of the soil. The formation of roots is soon followed by signs of growth, a. which time the pots may be removed to a cool frame near the glass and be gradually introduced to more airy conditions. Keep in a frame for the winter and plant out in spring in prepared beds. Daphne Cneorum may be propagated by layering the branches. These may be weighted down into sandy peaty soil with pieces of stone or with wooden pegs. Leave for a year; then remove and plant in the nursery quarters for a year. Cuttings may also be rooted in summer, but they are very difficult and grow slowly.

Skimmias not bearing berries (*Chelston*).—The specimens forwarded for examination were male and female forms of Skimmia japonica. If you obtain a small camel-hair brush and transfer pollen from the anthers of the flowers of the male plant to the stigmas of the flowers of the female plant, you will be almost certain to have fruit on it. On the male plant you will, of course, never find fruit. Were the plants growing side by side, pollination would doubtless be effected by insect or wind agency.

MISCELLANEOUS.

An abnormal Arum (*F. D. M., Huntingdon*).—The flower sent for inspection is quite similar to the one illustrated in THE GARDEN for April 22, 1911 (page 186). It is not a rare occurrence for an Arum leaf to be spathe-like in appearance. Such a sport or variation is more curious than beautiful. It is of no commercial value.

Asphalt tennis court and skating rink (*C. F. L.*).—The incline on your tennis court ought to be made from the net to the lines A L B and C M D. A drop of 2 inches between the highest and lowest levels ought to be ample for an asphalt court to cause the water to run away quickly, and it is probable that 1½ inches would answer.

Names of plants.—*M. C.*—Galax aphylla, a North American plant requiring a shady position planted in peaty soil.——*W. A. C., India.*—Kerria japonica.——*J. M., Dumbarton.*—Sambucus racemosus.——*L. S. O.*—Anemone ranunculoides.——*S. P. R.*—1, Saxifraga decipiens var.; 2, Symphoricarpus racemosus; 3, Fatzia japonica; 4, probably Papaver orientale.——*New Castle.*—A fine flower of the old double Daffodil (Narcissus Telamonius plenus).——*Comfied.*—1, Larix species (cones wanted for name of species); 2, Thuya dolabrata; 3, Cupressus lawsoniana erecta viridis; 4, Pseudotsuga Douglasii; 5, Abies Pinsapo; 6, Ribes aureum.——*E. K.*—1, Prunus Padus; 2, Amelanchier canadensis.——*H. M.*—1, Milla uniflora: Daffodils: 2, Sir Watkin; 3, obvallaris; 4, Emperor; 5, Horsfieldii; 6, Princeps; 7, Frank Miles; 8, Telamonius plenus; 9, Butter and Eggs; 10, Eggs and Bacon.

SOCIETIES.

THE MIDLAND DAFFODIL SHOW.

THE annual exhibition in connection with the Midland Daffodil Society was held in the Edgbaston Botanic Gardens, Birmingham, on the 27th and 28th ult. Notwithstanding the fact that the season has been a poor one for Daffodils, the exhibition was pronounced by many of the experts present to be 30 per cent. better than on any previous occasion. Following his usual custom, Mr. Robert Sydenham invited a large number of friends to dinner at the Grand Hotel on the evening of the first day, and after the dinner an interesting discussion on the progress of the Daffodil took place, this being opened by the president, the Rev. G. H. Engleheart.

GROUP A.—CUT BLOOMS (OPEN TO ALL).

For a collection of Daffodils, fifty varieties, one vase of each variety and three stems in a vase, Messrs. Chapman of Rye was fourth, his exhibit including some beautiful Poets, such as Biarritz, Rhymster and Cassandra. There were five entries in this class.

For twelve distinct varieties of long trumpet Daffodils, Messrs. Cartwright and Goodwin were first out of four competitors, staging exquisite blooms of Mrs. H. J. Veitch, Princess Ina, Weardale Perfection, Mrs. Betteridge, Lord Roberts, Mme. de Graaff, Glory of Noordwijk, Leiden Jar, Onslaught, General Mackaroff, Herod and Cornelia. Second prize went to Mr. J. Pope, King's Norton, who had some exquisite flowers of Middleton Favourite. Third and fourth prizes went respectively to Mr. J. Mallender, Bawtrey, and the Rev. J. Jacob, Whitewell.

For six distinct varieties of short trumpet Daffodils, Messrs. Cartwright and Goodwin were again first, Felspur, Neptune, Bert Sands, Giraffe, Lady Margaret Boscawen and Long Tom being the varieties staged. The Rev. J. Jacob was a good second, having exquisite blooms of Thora (which has a lovely apricot trumpet), Mrs. W. A. Wolseley and Endurance. Third, fourth and fifth prizes were won in the order named by Mr. C. Bourne, Bletchley, Mr. J. Pope and Mr. J. Mallender.

For twelve large-cupped varieties, Messrs. Cartwright and Goodwin were once more on top, their flowers of Whitewell, Joan of Arc, White Nectarine and Eoster being well-nigh perfect. The Rev. J. Jacob followed with a fine lot of flowers, Sunrise (with brilliant red cup), Redbrook, Bernardino and Charles being exquisite. Mr. H. D. Phillips of Olton was third, Mr. C. Bourne fourth, and Mr. J. Pope fifth.

For twelve distinct varieties of small-cupped Daffodils, the Rev. J. Jacob was a good first, staging clean and bright flowers of Delicacy, Firebrand, Pancake, Ellen Barr, Vivid, Japonica, Jacob Faithful, Scarletta, Evening, Ecstasy, White Lady and Charlotte. Jacob Faithful possesses a perianth of intense whiteness and good form, the eye being bright golden yellow. Second prize went to Messrs. Cartwright and Goodwin, whose flowers were good, but rather small. Mr. J. Pope and Mr. C. Bourne followed in the order named.

For six distinct varieties of true Poeticus, Messrs. Cartwright and Goodwin were first, staging fine flowers of Childe Harold, Matthew Arnold, Rudyard Kipling, Oliver Goldsmith, Highland Bard and Sir Philip Sydney. Mr. C. Bourne was second, his best flowers being Homer and Laurette. Mr. F. H. Chapman, Rye, was placed third. His Acme, Kestrel and Homer were superb. The Rev. J. Jacob was fourth.

For six distinct varieties of flat cups, Messrs. Cartwright and Goodwin were once more to the fore, staging fine blooms of Sulphur Eye, Circlet and Semiramis. The Rev. J. Jacob, Mr. J. Pope and Mr. C. Bourne followed in the order named.

For six bunch-flowered Daffodils, distinct, the Rev. J. Jacob was first, his Jaune à Merveille and Orient being exquisite. Messrs. Cartwright and Goodwin were second

GROUP B.—OPEN TO AMATEURS ONLY

There were no fewer than seven entries in the class for twenty-four varieties, representing various classes. Mr. S. F. Stafforth, Boston, was a good first, staging a very clean lot of large blooms, among them being Evangeline, Glory of Leiden, Lord Roberts, Horace and Mme. de Graaff. Second honours fell to the Rev. T. Buncombe, Black Torrington, who had J. B. M. Camm, Blood Orange and Horace in good form. Third and fourth prizes were won respectively by Mr. N. Y. Lower, Presteign, and Mr. E. H. Wood Ludlow, the fifth going to Mr. H. R. Darlington, Potter's Bar.

For nine distinct varieties of long trumpet Daffodils, Mr. H. R. Darlington, Potter's Bar, and the Rev. T. Buncombe, Black Torrington, Devon, were placed equal first. The former had good blooms of Weardale Perfection, Mme. de Graaff and King Alfred, the latter having fine flowers of J. B. M. Camm and Weardale Perfection. J. A. Kenrick, Esq., Harborne (gardener, Mr. R. Usher), was third; Mr. N. Y. Lower, Presteign, fourth; and Mr. W. H. Parton, fifth.

For three distinct varieties of short trumpet Daffodils, Mr. N. Y. Lower was first with good blooms of Lady Margaret Boscawen, Winifred and Orangeman. Messrs. H. R. Darlington, E. H. Wood, Ludlow, and Mrs. Gumbleton, Tewkesbury, following in the order named.

There were no fewer than nine competitors in the class for nine distinct varieties of large cups, Mr. Darlington being the champion with some very good flowers, Evangeline, Diana and Albatross calling for special mention. Second prize went to Mr. S. F. Stafforth, Boston, who had Enid and Brimstone in good condition. Mr. N. Y. Lower was third, the Rev. T. Buncombe fourth and Mr. W. H. Parton fifth.

Cartwright and Goodwin were first with a superb display of high-class flowers, all of which were clean and bright, and the exhibit was well staged. With such a magnificent lot it is difficult to select any for special mention, but the following particularly appealed to us: Coreen, Bard of Avon (a beautiful Poet), Semiramis (flat red cup), Longfellow, John Bradford (a very large trumpet, after the colour of Mme. de Graaff), Gipsy John (also a large pale-coloured trumpet) and Cassandra. Mr. C. Bourne of Bletchley was second, staging a fine lot of high-class flowers. Among those that called for special mention here were Chaucer, Peveril, Lucifer, Queen of Hearts (a very bright-cupped flower), Alys (pure white Leedsii) and White Knight (large trumpet). Third honours went to Mr. J. Pope, King's Norton, who had good blooms of Bernardino, Victory and Firebrand among his flowers. Mr. Herbert



THE NEW NARCISSUS MISS WILLMOTT, WHICH RECEIVED A FIRST-CLASS CERTIFICATE AT BIRMINGHAM. MR. WALTER T. WARE ALSO SECURED A SIMILAR AWARD FOR THIS VARIETY FROM THE ROYAL HORTICULTURAL SOCIETY ON APRIL 25.



THE NEW IRIS
ALBOPURPUREA
COLCHESTERENSE

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ROYAL GARDENERS' ORPHAN FUND.

AS everyone interested in horticulture should know, the primary object of the Royal Gardeners' Orphan Fund is to aid in the maintenance and education of the orphans of gardeners in public, private and market gardens or in nursery and seed establishments. The fund is a most deserving one, and each year many pathetic instances of motherless and fatherless children of gardeners are brought before the committee for consideration.

There is a tendency to look upon a gardener's life as all sunshine; but a moment's reflection will put a different complexion upon the life of one who has to battle with the elements and to face inclement weather. Moreover, the gardener is naturally conscientious and hard-working; and are we not constantly being reminded that he is, generally speaking, poorly paid? With these thoughts in mind, it will not be out of place to make allusion to the excellent work that is being carried on among the orphan children of a hard-working class. The fund makes an allowance not exceeding 5s. per week for each of as many orphan children as the funds will allow; and it is to the lasting credit of the officers and to those who have subscribed to this charitable fund that it is able to carry on this admirable work in supporting so many necessitous cases. This allowance is kept up until the child reaches the age of fourteen years; but the work of the fund does not cease here, for after this age is attained special grants are made to assist the orphans by means of purchasing clothing or tools, or providing apprenticeship fees when they are commencing to earn their own livelihood. There are now 117 children on the fund.

We are especially mindful of this good cause by the annual festival held on May 4 at the Hotel Cecil, when N. N. Sherwood, Esq., presided over a well-attended and influential gathering. Both the chairman and A. W. Sutton, Esq., made eloquent appeals on behalf of the fund. The appeal was most effective, so much so that the Rev. Canon Curtis, who spoke afterwards, humorously remarked that he was in the unique position of being able to take a lesson from two laymen in the art of begging. The result of the appeal was a record subscription, and the secretary was able to announce the grand total of £1,570. The attendance was also a record one. This is indeed gratifying, and the supporters of the fund are to be warmly congratulated, particularly in view of public unrest, which involves the management of all charitable institutions in great anxiety and concern. There is, however, little hope that the fund will every be able to cope with all of the many necessitous cases that are brought forward. At the last election twenty-one cases were selected, out of which only fifteen were placed on the fund, the remaining six having to wait a whole year for another chance of election unless the funds justify support at an earlier date.

It is with these hard facts to face that the committee urgently appeal for liberal support. In the ranks of gardeners, as in those of most other callings, there are many distressing cases of premature death. The bread-winner is suddenly removed from the scene of his labours while still young, and therefore before he has had time and opportunity to provide for those dependent upon his industry. The widow, being often left with several children of tender years, is unable to use her capacity for earning a living, because her presence and care are needed at home. Surely, the cry of the children is one that we have no right or desire to disregard!

Some interesting remarks relating to the history of the fund were made by the chairman at the recent festival. It was pointed out that the first meeting, called to consider a proposition made simultaneously by Mr. Charles Penny, Mr. H. J. Clayton and Mr. James Udale, to "establish a gardeners' orphanage or fund for the benefit of the orphan children of gardeners, as a memorial of the Jubilee of Queen Victoria," was held on March 22, 1887, in the conservatory of the former Royal Horticultural Society's gardens at South Kensington. A provisional committee was appointed to prepare a scheme, consisting of the chairman, Mr. Deal, Mr. Shirley Hibberd, Dr. Masters, Mr. James Douglas, Mr. John Fraser, Mr. Charles Penny, Mr. C. H. Sharman, Mr. Harry J. Veitch, Mr. J. Roberts, Mr. A. F. Barron, Mr. R. Dean, Mr. J. Matthews, Mr. John Wright, Mr. B. S. Williams, Mr. William Richards, Mr. B. Wynne and Mr. W. Roupell. Mr. William Richards was appointed hon. treasurer, and Messrs. J. Wright, B. Wynne and A. F. Barron

hon. secretaries. Queen Alexandra, when Princess of Wales, became patroness of the fund in January, 1892; and early in 1893 Queen Victoria commanded that the fund should be called the Royal Gardeners' Orphan Fund.

Towards the close of the evening at the annual festival it was suggested by N. N. Sherwood, Esq., that a new fund, to be called the Queen Mary Fund, should be started with the object of assisting one more orphan than would otherwise be the case. This would mean an expenditure of £13 per annum, and Mr. Sherwood promised £50 towards the new fund. As an instance of the good work done in the past, it was mentioned that one of the earliest girls to be elected on the fund has shown her gratitude by now becoming an annual subscriber. Any information with reference to the fund will be gladly furnished by the secretary, Mr. B. Wynne, Milton House, 35, Surrey Street, Strand, London, W.C.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 17.—North of England Horticultural Society's Meeting and Exhibition at Leeds.

May 19.—Société Nationale d'horticulture de France Spring Exhibition at Paris (seven days).

Kew Guild dinner.—The annual dinner and general meeting of past and present Kewites will be held at the Tavistock Hotel, Covent Garden, W.C., on Wednesday, May 24 (second day of the Temple Show). Dinner will be served at 7 p.m., to be followed by the general meeting, songs, &c.

The Royal Horticultural Society's Journal.—The President and Council of the Royal Horticultural Society greatly regret the unavoidable delay which has taken place in the issue of the society's Journal, caused by the recent strike of printers' operatives in London.—W. WILKS, *Secretary.*

The Gardeners' Royal Benevolent Institution.—The seventy-second anniversary festival dinner of the above praiseworthy institution will be held at the Grocers' Hall, City of London, on the 23rd inst., the first day of the Temple Show, at 7 p.m. Sir Marcus Samuel, Bart., will preside.

The Royal National Tulip Society.—The annual exhibition in connection with the above society will be held under the auspices of the Royal Horticultural Society at the Temple Gardens, London, on the 24th and 25th inst., the second and third days of the Temple Show. The schedule can be obtained from the hon. secretary, Mr. W. Peters, Farcet House, Cambridge.

Flower shows at Birmingham.—The Birmingham Botanical and Horticultural Society have decided to again hold two flower shows during the present year. They will be held at the Botanic Gardens, Edgbaston, on June 8 and July 20. The former will be chiefly devoted to Orchids and early summer flowers, and the latter to Roses and midsummer flowers. Honorary exhibits of flowers, fruits and vegetables will be welcomed. Schedules may be obtained from the hon. secretaries, Botanic Gardens, Birmingham.

The National Sweet Pea Society.—Under the provisions of Rule 9, and in accordance with Rule 11, a special general meeting of the members of the National Sweet Pea Society will be held at the Hotel Windsor, Victoria Street, Westminster, at 2.30 p.m., on Thursday, May 18, when the new floral committee rules will be submitted on behalf of the general committee, and such rules, as adopted, will become operative immediately. No other business will be transacted at the meeting.

An interesting shrub.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Shea showed flowers and foliage of Oncoba spinosa var. Routledgei, a newly-introduced greenhouse shrub from Central Africa. The seed had been sent home to Mr. Shea from Central Africa, a fruit having been presented to a friend of his by a native chief as a parting gift, on account of its great value as a means of ridding one of enemies with little trouble. The instruction given was to soak the hard fruit in water and present the decoction to the person disliked to drink. The fruit has, therefore, probably very poisonous properties. The plant has large showy white flowers, strongly scented, and with numerous yellow stamens. Many of the flowers lacked a pistil. Mr. Shea's plant appears to differ from the type which is a native of Arabia, and the varietal name of Routledgei is in honour of the sender of the seed. It was unanimously resolved to recommend the award of a botanical certificate to the plant on the ground of its novelty and peculiar properties.



THE LATE S. A. DE GRAAF.
(*See page x. of our issue for last week.*)

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

The Daffodil as a garden flower.—There are some notes in THE GARDEN for May 6 on "The Daffodil as a Garden Flower" that call for comment. I will not here concern myself with anything except the last paragraph, with which I am not in agreement. It is a painful blow to me to see it actually suggested that a list of too-much-alike varieties of the Poeticus section should be published. Practically all the Poeticus varieties in commerce—at any rate, with a very few exceptions—emanated from one source, and the eminent raiser to whom I refer would be the last man likely to spoil his reputation by sending out varieties that were too much alike. But apart from this, the suggestion made strikes at the very root of one of the most interesting studies connected with the genus Narcissus, *i.e.*, the examination and identification of the Poeticus varieties by their small and sometimes unnoticed points of difference. It is in this, as well as in its beauty and fragrance, that the fascination of the Poeticus section lies, and I for one should consider the adoption of any such proposal as that suggested a most impolitic and deplorable step.—F. HERBERT CHAPMAN. [We publish the above letter with pleasure, but Mr. Chapman rather misses the point. He admits fully our contention that "already there are a number of varieties, particularly in the Poeticus section, in which an ordinary grower of flowers can detect no appreciable difference." A new variety of any flower should, before being named, be so distinct from any other existing named variety that an ordinary grower of flowers can see at a glance, when he has the two side by side, the difference between them. We should very greatly deplore the necessity for publishing a list of too-much-alike varieties of Daffodils, and for that reason alone we drew attention to the tendency for raisers to name varieties that, to quote Mr. Chapman, have only "small and sometimes unnoticed points of difference."—ED.]

Hardy Primulas at Clandon Park.—The notes on hardy Primulas at Clandon Park move me to write to tell you—I wish I could send you a photograph, but the place is unphotographable—about our Primula dell here. At the edge of a small wood lies a deep hollow, which was once the quarry from which the house was built. It lies some 10 feet below the level, and is entered by winding walks. Rhododendron, Andromeda, rugosa Roses, Magnolia soulangeana and Lilacs grow round the old quarry edge. There are several Scotch Firs and some Sumachs. The rough grass has been planted with Scillas, Chionodoxas and Daffodils, while Anemone apennina flourishes everywhere. The rocky sides we have planted with innumerable Primula denticulata and cashmeriana mixed with Primroses. The combination of colour is most attractive. Primulas rosea and japonica flourish in the shady places, and I am putting out a number of P. kewensis seedlings which may or may not stand the winter. When I get enough seedlings of P. cockburniana I will take a hint from Clandon and put them in the dell. Erythronium Dens-canis is going into the grass. We are 862 feet above sea-level.—ROWLAND THURNAM, M.D., *Blagdon, Bristol.*

Affiliation of allotment associations. In reply to Mr. Wadd, I can assure him that we have heard of the society he mentions, for we have given the question of registering through it careful attention, and have concluded that we ought not to do so. What is needed by small holders and allotment holders is a strong national organisation to obtain better working of the Small Holdings and Allotment Act, and to get improvements in that Act at the earliest opportunity. The chief work necessary for such an organisation would be in bringing constant pressure to bear on the Board of Agriculture and in compelling the provision of suitable land at a fair price. If the society mentioned were a suitable body for such work, we should have had no hesitation in joining it; but I believe that the only organisation suitable would be a democratic one entirely supported and controlled by small holders and allotment holders. I should think it is fairly plain that a society like the Agricultural Organisation Society, having one-third of its committee nominated mostly by the Board of Agriculture, and deriving a large

t of its income from the same source, is incap- e of making much impression on the Board Agriculture's policy. Then, too, its members elected at such time and place as would only e wealthy subscribers a good chance of being resented. This society does work which is ctically that of a semi-Government Department, is not a suitable body for small holders and tment holders to affiliate with if they wish to ain the best results from the Act. Under se conditions we consider that whatever we to the Agricultural Organisation Society is ply for the use of their rules. The required ments are that you purchase one of their shares, rying no interest, and give them one of yours, ing 5 per cent., also pay an affiliation fee, ch in our case amounts to over £2 per annum. cash payment at once should be sufficient; annual fee is unreasonable, especially as it ht hinder the formation of a democratic ional body.—E. G. MORRELL, *Hill Fields Allot- t Association, Coventry.*

Potatoes. — The rise in the prices of old atoes just at the planting season will have had effect, no doubt, of stimulating the planting wider breadths this spring. It is not probable t the prices of seed tubers will have been terially affected, as it may be assumed that se were ordered or purchased prior to the , and should before now have been planted. atever the weather conditions may have been diverse parts of the kingdom, most certainly planting season has found the soil in admir- e condition, and the work of planting has nd every facility and encouragement. The ato has become so important an article of d, especially to the masses of our huge popula- , that any decrease in the annual products ously affects the pockets and food of the poor. to quite recently the Potato supply has been ntiful and cheap. Good, sound tubers had n for a long time on sale at stalls, shops and rows at 7lb. for 6d., a very low price relatively, sidering how many hands the tubers have to s through before they reach the consumer. have scares frequently raised over certain ato diseases, but in spite of these the healthy o is an enormous one.—A. D.

Wild-flower competitions for school- ildren.—"A. D." should know better, con- ring he is a native of one of the most noted nties for wild flowers—Hampshire—than to fear few flowers that the children gather for the pose of their competitions and amusement possibly diminish the stock of these kinds in l districts. In this part we enter strongly the teaching of school-children how to arrange l flowers as a means of inciting them to take an rest in flowers generally. We employ wild vers because they are more plentiful for all n any form of garden flowers and so much e suitable for the purpose of arrangement. much has this phase of floral interest grown in neighbourhood that we have now a special w or display in each village in July. This has n going on for the last twenty years, and still one notes the great diminution of flowers or eties as "H. C. F." and "A. D." would have lers to believe will be the case. There is no reason for alarm, because the children do not up the roots, but only pick the flowers, and n the quantity present there need be no fear he destruction of species. We do not find that competition for grasses is nearly so keen as he case of wild flowers. Grasses are but dull cts at their best, and this the children seem to ise. They need something more attractive, this wild flowers provide at a small expense.— M., *Hampshire.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

EARLY STRAWBERRIES OUTDOORS.—If a batch of young plants were planted on a warm border last autumn with a view to producing early fruits, they will need some protection in case of frost. A good plan is to erect a temporary framework so that tiffany or mats can be placed over them at night. Some clean straw must be placed around the plants to keep the fruits clean. When the fruits are set, a good watering with diluted liquid manure will be of great benefit to the crop. All plantations will now be in need of a mulch of long litter.

Raspberries.—Old plantations should be mulched with well-seasoned farmyard manure. It will also pay later on, when the fruits are swelling, to water them with farmyard drainings. Remove suckers as they appear from between the rows, and cut away all the weakly growth from the stools.

Peaches and Nectarines.—The weather during the early part of April, when Peaches and Nectarines outdoors were in full flower, was more in accordance with midwinter than early spring. At the time of writing it is too early to say what effect it has had on the crop, but a sharp look-out must be kept for aphis, as this pest is sure to appear on the young shoots after the cold, retarding weather. Give the trees a good drenching with an insecticide about twice weekly; this should be done late in the afternoon. During favourable weather the trees may also be well washed with clear water. The cold weather will probably have caused "blistering"; this must be picked off and destroyed.

Newly-planted Fruit Trees.—Should any trees which have been recently planted show signs of exhaustion, they should be sprayed with clear water morning and afternoon when the weather is fine and mild. The soil about the roots must be kept moist, especially if new loam has been used in planting. If they have not been mulched, this should be no longer delayed, as it will be of great benefit to the trees during dry periods.

Outdoor Vines.—Remove the surplus shoots from these as soon as it can be seen which are showing the best bunches. An error which is commonly made in the culture of outdoor Grapes is to leave far more growth than is needed to fill the allotted space. This not only causes a general weakening of the Vines, but is often the cause of the fruit failing to mature. Stop the shoots at the second leaf beyond the bunch, and keep all laterals pinched at the first joint. See that the roots are well supplied with moisture, and when the berries are swelling some stimulants must be given. Mildew can be kept in check by dusting the leaves occasionally with flowers of sulphur.

KITCHEN GARDEN.

Outdoor Tomatoes.—Should these require a shift into larger pots, this must be done and the plants kept growing in frames till the weather is suitable for planting them out, which will be about the end of the present month or early in June. Vacant spaces between fruit trees on walls facing south or west may be utilised for this purpose. Failing these, a border which is sheltered from the north and east winds should be selected. If the ground is of a heavy, retentive nature, dig in some old mortar rubble when preparing it for planting.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

ORCHARD-HOUSE.—Fruit trees in pots that have set their fruits freely should now be syringed daily, except during dull weather, and a moderately moist atmosphere maintained. Thinning the fruits must not be undertaken too early; but where a large number have set, the size of the clusters may be reduced to save the trees becoming unduly exhausted. Weak liquid manure should be applied frequently, and where a farmyard tank is not available, a bag containing sheep-manure and soot should be submerged in a tank kept for the purpose. Thinning and stopping of the growths will also need attention, and a careful examination should be made for attacks of aphis. On the first appearance of green fly a weak solution of Quassia should be applied with the syringe or sprayer.

Strawberries in Pots.—These will not require much assistance from fire-heat now, and if a house having other than a southern exposure (preferably an eastern one) can be given them at this season, the fruits will develop and ripen better than if exposed to the full rays of the sun; the staging should be near the glass and the pots supplied with plenty of water, using a stimulant occasionally. The fruits should be well thinned out as soon as set, leaving about half-a-dozen of the best-placed berries for ripening. Remove all runners as soon as they appear, and use the syringe freely until they commence to colour, after which its use may be discontinued as well as stimulants. The house should be well ventilated on all favourable occasions. The later-forced plants may be used for forming permanent plantations, these being more suitable for that purpose than those subjected to much artificial heat for early crops.

Figs.—The early crop of Figs is now ripening, and the house may be afforded more ventilation. As soon as the fruits are gathered, the plants should receive a good syringing and copious watering at the roots. If pinching and regulating of the young growths have been attended to, they should provide a good second crop in autumn. For very early crops a number of the most reliable kinds should be grown in pots. These are easily obtained from cuttings made of well-ripened wood of the current year's growth, and can be had to bear a few fruits when from two to three years old. The variety Brown Turkey is one of the best for general use.

Pines.—The plants that were shifted into their fruiting pots, as advised some time ago, should throw up their fruits in autumn, and will now require liberal supplies of water. Suckers making their appearance should be reduced in number, leaving not more than two to each plant. A warm temperature should be maintained, with frequent dampings during the day to keep the atmosphere moist.

Young Vines required for planting out next month, if in pots, will need moving into larger ones to avoid becoming pot-bound, as in this condition they will not take readily to the soil in the border; they should be kept growing freely, with as much air in the house as can safely be given. Plants are often raised from eyes on squares of turf, and this is a favourite method of many growers who prefer planting canes of their own growth during the month of June instead of planting dormant canes in spring, a system that does not answer with everyone.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

TREES AND SHRUBS.

LILAC-TIME IN THE GARDEN.

THE various garden Lilacs constitute one of the most useful and popular groups of shrubs in the garden, for they are beloved by everyone and blossom at a time when the whole garden is at its best, fresh green leaves and flowers occurring on every hand and no rusty or dying leaves to mar the general effect. Many a lovely picture is made in old gardens by large and ancient bushes thickly studded with elegant trusses of flowers, which scent the whole neighbourhood with their fragrance. Nowadays all sorts of varieties of Lilac may be obtained. The colour of the flowers ranges from light to deep lilac, lilac purple, purple and red on the one hand to white on the other, while in some cases the inflorescences are 8 inches or 9 inches in length. Varieties with double blossoms may also be obtained, but they cannot be said to possess the same beauty as the single forms.

There appears to be a tendency, from high breeding, to produce varieties with less fragrant flowers than the commoner kinds, which is a subject for regret, for, as in the cases of the Rose and Carnation, scentless varieties, however beautiful, fail to possess the subtle charm associated with these particular flowers. A scentless Violet would be looked on with little favour, and a scentless Lilac should be looked on from the same point of view.

The garden Lilacs have originated from two species, Syringa vulgaris and S. persica. The former is known as the common Lilac and is a native of Eastern Europe. It has been so long in our gardens that it has become almost naturalised in some places, for it reproduces itself freely by means of suckers, and instances sometimes occur where suckers have introduced themselves into hedges, and have so grown in companionship with Holly, Thorn or Privet as to become part of the hedge. It is from this species that all the stronger-growing varieties have been raised. These varieties are increased in numerous ways, sometimes by means of cuttings, sometimes by layering, but more frequently by grafting on to stocks of the type. As a rule, Lilacs blossom well, especially if the ground is of a rich loamy character. The majority of the varieties, however, give most satisfactory results when a good surface dressing of rotten manure can be given them directly the flowers have fallen. It also considerably assists new growth if the old flower-heads can be removed before seeds have an opportunity to form. Plants sometimes become weak, especially when suckers are formed freely, and the crop of flowers suffers accordingly. Such a condition may often be set right by removing the suckers and a considerable proportion of the weaker shoots from the centres of the bushes. The bushes will most probably bloom quite freely again. When first planting Lilacs it is bad policy to use poor soil. The second species before referred to is the Persian Lilac (S. persica), a dwarf-growing shrub from Afghanistan. Mature bushes may attain a height of 5 feet, but more frequently it is found from 2½ feet to 3½ feet high. The branches are much weaker than those of the common Lilac, but they produce inflorescences much larger than would be expected from the wood and very little smaller than those of some forms of S. vulgaris. They are peculiarly graceful in appearance, and are borne with great freedom. The flowers of the type are of the ordinary Lilac hue, but the variety alba has white blossoms. A second variety finds favour in some quarters on account of its finely-cut leaves. It is known as laciniata. Between this species and S. vulgaris a very showy hybrid has occurred. It has been given a variety of names, those of Rouen Lilac and S. chinensis being most common. Growing at least 15 feet high, it forms a shapely bush with elegant corymbs of deliciously fragrant flowers. Variations from the type are found in the varieties metensis, rubra and saugeana. Neither this nor S. persica requires the drastic thinning recommended for the varieties of S. vulgaris when they fail to flower, for it is rarely that pruning is necessary, and that only when a plant has outgrown its position. Propagation by cuttings is more easily effected than with strong-growing varieties, while layered branches root freely.

The following strong-growing kinds would form the nucleus of a good collection: Charles X., dark red; Condorcet, lilac blue, semi-double; Duc de Orleans, lilac blue; Delphine, bluish; Marie Legraye, white; alba grandiflora, white; Monument Carnot, double lilac; Camille de Rohan, dark reddish; Mlle. Fernande Viger, white; Philemon, red, very large inflorescences; Souv. de Louis Spath, very fine red; and Marie Lemoine, double white.

D.



A BED OF RHODODENDRON ROSA MUNDI AT KEW.

RHODODENDRON ROSA MUNDI.

THIS handsome Rhododendron is one of the most ornamental varieties in cultivation. It is particularly adapted for planting in bold groups or beds, for it can be relied upon each year to yield a profusion of its attractive flowers. It is rather dwarf-growing, of bushy habit, and shows to advantage as a subject in the foreground of a shrubbery or in a spacious bed. The illustration depicts a fine bed of R. Rosa Mundi in full flower near the Palm House at Kew. It is an April-flowering variety, which carries its flowers well on into the present month. The flowers are white, suffused with pink, and borne in large trusses. It deserves special mention for its hardiness, and this, combined with its early-flowering character, make it an invaluable shrub for a spring display. Moreover, it forces well, and may be had in full bloom at midwinter in a greenhouse or conservatory where little artificial heat is applied. The history of this excellent variety is not quite clear. It is probably of Continental origin, and may have been introduced to this country within the past twenty years. Like most members of its family, it rejoices in a peaty soil, and, failing this, it will give a good account of itself in a fertile loam that is dressed once in two years with fairly fresh cow-manure. With all Rhododendrons it is important that the seed-pods should be removed after flowering.

KITCHEN GARDEN.

THE CULTIVATION OF LATE PEAS.

WITH the spring advancing we turn our thoughts from the early to the late supply. In many gardens late Peas are more difficult to grow than the early crops. The late supply in the North is better than that in the Southern parts of the country; indeed, unless given special culture in the South, it is impossible to grow late Peas on a poor gravelly soil.

Deep culture is, of course, an essential point; but even then with a thin, gravelly subsoil it does not always mean success. With deep culture there must be food, in order to get strong plants that will give a good return.

My best results on a poor soil were obtained when the late supplies were grown in trenches prepared at this date. Consequently, the work was much more simplified at the busy season of June and July, when the late varieties were sown. Thick sowing often leads to failure, as the large-podded Marrowfat varieties require room, and when at all thick are battling for very existence. Should a period of drought or heat set in, they soon fail. Trenches prepared now can be made between other crops, and there need be no waste of labour or space, as it is an easy matter to crop between the trenches. In light, gravelly soils the food for the roots should be generous and the bottom of the trench dug deeply before the food is placed in position; and when from 4 inches to 6 inches, or even

e, of well-decayed manure is given with a portion the top soil incorporated with the manure, at the time of sowing will be in good condition the seed. Choose an open position and place soil taken out of the trench at the sides. Should or hot weather follow during the season, ch the soil each side of the trench before the its commence to pod. This mulch if watered e a week will retain moisture and keep the roots lthy and the haulm free from pests.

s regards the dates to sow, so much depends upon demand. For instance, I always endeavoured ave this vegetable as late as possible, and relied Carter's Michaelmas for this purpose. Sowings e made on a cool border in August. The it is not a tall grower—only 3 feet. The ure was quite the reverse of that advised above. seed was sown in shallow trenches, but only et apart, and as soon as the plants were well ve the soil, the space between the plants was n a thick mulch of spent Mushroom manure, this kept the surface soil cool and encouraged action, the Michaelmas giving us pods well October; indeed, in the North we have had them November in a mild season. Veitch's Autocrat, ugh not bearing such large pods as some of newer introductions, is a grand late Pea, having bust growth and branching freely. It is one he best I ever grew to resist mildew, and is cious when cooked. There is no difficulty in ing this variety from July to October by ting sowings in May, June and July. The Carter's Dreadnought, also a 3-feet variety, e a grand late crop last season, and at a time n many failed owing to the sunless weather. this respect it favours their well-known aelmas, but bears much finer pods, and is as t a cropper; it is a splendid introduction.

Pea that should not be overlooked, and which well in the North, is The Gladstone; this is distinct, having pods much curved, and is a bearer. There is also an improved form of old but good variety; this is Sutton's Selected lstone. The pods are longer, and it is a splendid variety. There are others, such as Latest ll, also a dwarf grower, an excellent variety ate use and well known for its late-cropping ities.

G. WYTHES.

HE GREENHOUSE.

NOTES ON ORCHIDS.

A SELECTION OF LÆLIAS AND CATTLEYAS.

N nearly every collection of Orchids the two genera quoted above occupy a prominent place, and rightly so, for they are among the most showy of all orchidaceous plants and are by no means difficult to grow, particularly the hybrids, of which there are some hundreds in commerce. The genus a is not large, the principal members being urpurata, L. tenebrosa, L. cinnabarina, and anthina. The anceps group is left out of deration for the present, because a separate ture is necessary to secure the best results.

nong the Cattleya species will be found the ta section, which embraces Mossiæ, aurea, lelii, Trianæ and others. Then we have ingiana, the dwarf Aclandiæ, Loddigesii and neri. It is, however, from the hybrids that et the best display; and although much pro- has been made since this fascinating branch begun by Dominy in 1854 (to whom the y-first volume of THE GARDEN is dedicated), nteresting to note that some of his first hybrids ill in the front rank, for we have only to mention richly-coloured Lælio-Cattleya dominiana, with its several named varieties, and the popular Calanthe Veitchii. Other Lælio-Cattleyas include callistoglossa, bletchleyensis, canhamiana, Aphrodite, G. S. Ball, wellsiana, Violetta, Berthe Fournier, luminosa and Golden Oriole; while the Cattleya hybrids embrace Mantinii, the white Dusseldorfei, Undine, the well-known Iris, Enid, Fabia, fulvescens, Maggie Raphael, hardyana and many others of equal merit.

Cultural Details.—Where a quantity of Cattleyas are cultivated, the repotting begins in the spring and is continued throughout the summer months, while a few may require attention during the winter period, but extra care is needed with the watering-pot for any that are given fresh soil at this season. The best time to repot an Orchid is when a new batch of roots are seen at the bottom of the last made growth; then the plant hardly feels



A SPRAY OF THE RARE AUSTRALIAN PLANT, HOVEA CELSII.

any bad effects of the change. Another important factor is to repot before the compost is too far decomposed, or the roots decay and the plant gradually becomes unhealthy. It often happens that a pot of the same dimensions will suffice, because with established specimens a few of the old back pseudo-bulbs are always removed, four or five behind the lead being ample.

Good drainage is essential for all indoor Orchids, and each receptacle ought to be filled one-third of its depth with clean potsherds, over which is arranged a thin layer of sphagnum moss, when it is ready to receive the plant. A lasting rooting medium consists of Osmunda fibre one-half, peat one-fourth and chopped sphagnum moss one-fourth, with a fair sprinkling of finely-broken crocks to render the whole porous. It should be pressed moderately firm about the roots and brought almost level with the rim. After being disturbed at the base, the most important item is watering, and in doing this we must take into consideration the amount of air admitted, whether the atmosphere is filled with moisture and if the plants are well exposed to strong light or heavily shaded; but for a few weeks it is better to err on the dry side, the object being to keep the soil in a sweet condition, while at the same time water must be supplied in sufficient quantity to prevent the pseudo-bulbs from shrivelling.

The majority of cultivators set apart a separate house or division for the subjects of the present article, where an average temperature of 60° Fahr. is maintained. In the same structure could be grown the Brassavola hybrids, of which there are a beautiful series, and suspended from the roof the charming little group of Sophro-Cattleyas (a very fine example was illustrated in THE GARDEN of November 26, 1910) and Sophro-Lælias would thrive. Blinds made of canvas will be needed to protect the foliage from the sun's strong rays, and whenever the weather is bright a gentle dew overhead with a spraying syringe such as advertised in THE GARDEN will prove beneficial. The stages ought to be damped down twice or thrice each day, according to the elements outside, and a little ventilation both top and bottom is advisable if there is no wind to cause a strong current of air to pass over the plants.

Mention has been made about cutting off back bulbs, which should be destroyed, unless the variety happens to be a choice one; then they are laid upon some damp sphagnum moss till a growing point is formed, when each piece may be potted up and treated the same as established plants.

Thrip and scale are the most troublesome insect pests, and the former can be destroyed by vaporising the house with XL All directly one is seen; but for the latter each plant must be carefully washed over with a weak solution of some reliable insecticide, and to remove them from the bottom of the pseudo-bulbs a pointed stick may be employed.

SENTINEL.

A RARE GREENHOUSE PLANT.

(HOVEA CELSII.)

THE genus Hovea comprises about a dozen species of handsome, blue-flowered evergreen plants, mostly confined to Western Australia, of which H. Celsii (syn. elliptica), the species shown in the accompanying illustration, affords quite an acquisition to any collection of hard-wooded greenhouse plants. Although rarely met with nowadays, it was quite a common plant in gardens twenty or thirty years ago. H. Celsii forms an erect shrub from 3 feet to 4 feet high, being rather of a thin, straggling habit. The plants require to be frequently pinched when young, in order to induce bushy growth. The beautiful deep blue Pea-like flowers are produced freely from the axils of the leaves in early spring. Propagation may be effected by either cuttings or seeds. The latter method is preferable, as cuttings are rather difficult to root. The seeds should be sown in well-drained pots filled with fine peat and sand, placing them in an intermediate temperature and shaded from the sun until germination takes place. When large enough the plants should be potted singly in a compost consisting of good fibrous peat, sand and finely-broken crocks. After they become established plenty of air may be admitted, keeping them in a temperature of 45° to 50° during the winter months. Hoveas are liable to the attacks of red spider during hot weather; these may easily be prevented by using the syringe well to the under side of the leaves

W. T.

COLOURED PLATE.

PLATE 1425.

A NEW IRIS.

DURING recent years a number of valuable and beautiful hardy Irises have been introduced to this country, and some have been raised here by crossing the different species and varieties. The Iris family, as a whole, is a large and varied one, and plants suitable for the driest positions, as well as for the bog garden, may be found among the members composing it. The variety illustrated is a new form of Iris albopurpurea, and when exhibited last summer created a great deal of interest, not only among those who make a speciality of these flowers, but also among the general public, who, naturally, look at a new flower mainly from a decorative standpoint.

This new Iris was received many years since in the form of seedling plants from the late Max Leichtlin. It differs from the Iris albopurpurea as figured in the *Botanical Magazine* and by a coloured plate in THE GARDEN some years since, inasmuch as the markings on the falls are not so faint and so spotted, but are of a much deeper blue, and the whole fall is nearly suffused with colour. It also differs from the forms that are now sent from Japan under the name of albopurpurea and albopurpurea cærulea. These Japanese forms are much inferior in shape, and in the case of albopurpurea are of a pale lavender colour. What is sent as albopurpurea cærulea more resembles the plant now figured, but it is of a duplex form, in shape and appearance like an undersized Iris Kæmpferi.

The foregoing reasons induced Messrs. R. Wallace and Co. of Colchester to give this form the name of colchesterense, so as to distinguish it from the many forms of albopurpurea now under cultivation, all of which seem to be very much inferior. It is a beautiful Iris, very free-growing, doing best in moist soil by the water's edge, and when in flower at Colchester last summer was the most beautiful thing in the way of Irises we have seen for many years. When exhibited before the floral committee of the Royal Horticultural Society on June 21, 1910, it received an award of merit, an indication that its beauty and distinctness were undisputed.

A colony of such Irises as this, grouped irregularly by the water-side, so that their roots can obtain an abundant supply of moisture, which is so greatly appreciated by the plants, creates a picture of more than passing interest. As cut flowers many of the Irises—such, for instance, as sibirica—are ideal, as the partly-opened buds develop freely in water, and flowers thus opened show their delicate colour tones unsullied by wind and rain. A black-and-white illustration, showing a growing colony of Iris albopurpurea colchesterense, appeared in our issue for July 13 last year, and gives a good idea of the habit of the plant, the flowers standing well above the characteristic sword-like foliage.

THE FLOWER GARDEN.

MECONOPSIS ACULEATA.

THE genus Meconopsis has always received attention by hardy plant enthusiasts, owing to the delicate colour and inimitable grace of the flowers, and also for the elegant foliage. Apart from our native species, M. cambrica, probably the best-known representative of the genus in gardens is found in M. Wallichii, a species from the Sikkim Himalayas, having evergreen leaves arranged in charming rosettes, from which rise pyramid spikes of flowers of pale blue colour, varied at times by a stain of purple that detracts from their beauty.



AN INTERESTING HARDY PLANT FROM THE HIMALAYAS: MECONOPSIS ACULEATA.

Recently the introduction of M. integrifolia added impetus to the cultivation of this genus, particularly when this species responded to cultural treatment as applied to M. Wallichii. It has full, golden flowers, and is the most meritorious of the yellow-flowered members of the family.

M. aculeata, the plant illustrated, is much less common in gardens than either of the foregoing, and its beauty is greater. A foremost authority on the genus asserts, "Meconopsis aculeata is surpassed in beauty by no flowering plant. The groundwork of its colour is the blue of Delphinium Belladonna, the surface dusting is milk and the central boss of stamens the colour of old gold." The plant, as a whole, appeals to one. The blunt-pointed hirsute leaves and stems, with widely-expanded flowers of unsullied blue, inside relieved with gold, so graceful and lightly poised, shadow forth such strength and beauty as no other Poppy flower can equal. Like the majority of this genus, M. aculeata is a biennial and deciduous in winter. The leaves are arranged in rosettes, the radical ones somewhat cordate in shape, with five or six blunt, rounded points. The leaves are narrower as they ascend the stem, and gradually diminish in size as they approach the flowers. The latter are borne on short stalks, at first recurving, but gradually they stiffen out until they stand perfectly erect. The spike opens from the top downward, beginning about mid-July and lasting until the end of August, four to five flowers being the maximum number open at one time.

M. aculeata ripens seed sparsely, which accounts for its comparative rarity. The pods from the earliest flowers generally contain the most fertile seed. I have on several occasions found spontaneous seedlings of M. Wallichii and M. integrifolia in beds occupied by flowering plants of these the previous year, and was agreeably surprised to find seven plants of M. aculeata originate in a similar way from a specimen I flowered in 1909; the self-sown seedlings were much more vigorous than those raised with care under glass. Seed of all these plants should be sown in autumn or spring in specially-prepared pans of sandy peat soil, and grown as cool as possible in all stages. Damping off is the great danger in the seedling stage, so that water must always be given with care. THOMAS SMITH.

SWEET PEA NOTES.

THE FLORAL COMMITTEE AGAIN.—So the parent society still remains in a state of uncertainty in regard to its floral committee. We all hoped, after that happy gathering of pleasant memory, there would be no further trouble, but that last year's members would do the amiable among the novelties to the complete satisfaction of the world. This, however, falls to the ground if the special general meeting (thank goodness, it is legally called this time) approves the rules and regulations which the general committee has been at such pains to prepare. In these it is suggested that the number of members constituting the floral committee shall be nine, and there cannot be a shadow of a doubt that if these are all sound men they will do the work equally as well as—indeed, in the opinion of competent judges, better than — twice that number. Election, one learns, is to be for three years, and that, as a man or a woman retires, he or she will not be eligible for re-election for at least two years. In the discussion on the point it was shown that this would prevent the society having the services of some of the crack judges for two years, and one speaker seemed to think that this would result either in the end of the world or the collapse of the society; but another good man, with a taste for gruesome wit, demanded of the previous speaker, "What would happen if these great men were dead?" He did not get an answer. I will give him one. The society and its work would proceed just the same; there is not one man, or two men, or half-a-dozen men for that matter, whose retirement from any cause would move the stability

f the National Sweet Pea Society. We want he best men; but we do not want them to catch n to the idea that they are heaven-sent indispens- bles, without whom the society would promptly ie. In the meantime, we wait with anxiety for hat special meeting and its momentous decision vhich will, it is hoped, support the committee.

EARLY PLANTING.—Advocates of early planting vho practised what they preached came down a errible cropper this season. The level-headed ardener can never comprehend why his more mpetuous brothers in the craft cannot restrain hemselves, but feel that directly the weather emains fine for more than two and a-half or three ours they must get all p ants out. Our climate s not a stable one, and it is safer, until the middle f April at the earliest, to calculate upon unfavour- ble conditions occurring rather than upon favour- ble ones; and this season we have had them. Thousands of plants, which would have been safe, ound and healthy in the frames, were planted, nd, if not killed outright, crippled so everely that it is impossible for them ully to recover from the shock. It vill be a lesson to the losers, for it s certain that they will not forget n a hurry the calamity which has visited them. We may take it that n quite eight seasons out of en it is not safe to plant before April 15.

MULCHING.—The plants will now nave become splendidly established, nd the question of applying an early mulching will arise in the minds of many growers. They will argue, and vith some force of truth, that the pplication of short manure above he roots will keep the surface cool nd provide food for the roots. On he other hand, one can question vhether either of these things is ecessary at this stage, and the general opinion would probably be in avour of the latter view. The top should be kept quite open by hoeing or forking; but no covering should be spread for at least a fortnight yet, because the pleasant showers will bring food and sweetness, while fresh, strength-giving air will follow the water down to the roots. These things will do more good in building up the plants than specially-conveyed food; there should be plenty in the ground to last the plants for some weeks to come.

THE MONTH OF SHOWS.—It is premature, per- haps, to talk about July in May; but exhibitors have much to think about, and they must do it in advance. The great days appear to be July 11 and July 12, and schedules ought to be written for soon, carefully studied and a decision reached as to which gatherings will be attended and which left out in the cold. The stock of vases and travel- ling boxes must be overhauled, repairs carried out and breakages replaced. A. B. ESSEX.

WILD PINKS.

WILD Pinks form a group of hardy plants that adapt themselves to a great variety of conditions, and are always employed to excellent advantage when grouped in informal parts of the garden. The choicer species should be given selected sites on the rock garden, while the more robust-growing kinds will succeed on exposed parts, and are among the best plants one can conceive for clothing the face of rock or dry walls. Their cultural requirements are readily supplied, as the majority succeed in rich, gritty soil that is well drained. They grow with marked freedom on chalky or limestone soils, and when this substance is absent old mortar rubble should be added to the soil when preparing the site for planting. Wild Pinks are easily raised from seed, which should be sown in pots or pans of prepared soil in spring, after- wards transplanting the seedlings into boxes and, when strong enough, either planting them direct to their flowering quarters or into nursery rows in the reserve garden, whence they are transplanted to permanent positions in the following spring.

They are very free-flowering, and in the form and colour of the flowers an exceedingly wide and pleasing range is in evidence, while in some species, such as Dianthus plumarius and D. cæsius, the glaucous grey leaves form an additional charm that increases their decorative value beyond the actual flowering period.

D. deltoidea (the Maiden Pink) is one of the most distinct and floriferous of our native species. The flowers are rich, bright carmine in colour, and are excellent in contrast with the soft green leaves. It makes an ideal subject for a steep rocky face or a dry wall, and generally gives a fair show of blossom in autumn.

D. fragrans is a dwarf, sweet-scented Pink with blush white flowers on short stems, and should be placed in a position where one may readily enjoy its fragrance when in flower.

D. alpinus is one of the dwarfest Pinks, yet it produces flowers of an immense size and of a bright rose shade freely spotted with crimson. It succeeds best in a cool, sunny spot that is well drained, and must not be overlooked in winter, as it occasionally suffers from excessive moisture at that season.

D. neglectus is one of the brightest and best rock plants, and also one of the easiest to grow. The foliage of this species is green and grass-like, and the flowers are a brilliant shade of carmine pink, borne singly upon slender, wiry stems that spring in profusion from low, dense mounds of leafage. D. subacaulis is a very tiny, tufted species, with fairy-like flowers of faultless form and colour that are carried upon 6-inch wiry stems and are of a clear pure shade of pink. D. Knappii and D. pubescens merit a position for their yellow flowers. In the former these are carried in clustered heads, while those of D. pubescens are larger and borne singly. D. cinnabarinus and D. cruentus are tall-growing species that are excellent when grouped on the higher parts of the rock garden. In both species the flowers are brilliant and showy in colour, the latter, with its clustered heads of blood crimson flowers, being commonly known as the Blood Pink.

Chiddingfold, Surrey. THOMAS SMITH.

AN INTERESTING MULE PINK.

A HANDSOME Mule Pink after the style of the favourite Napoleon III. is Fürst Bismarck, one of comparative novelty and one which has consider- able claims upon those who like the varieties of the Pink which are classed broadly under the name of Dianthus hybridus, or Mule Pink. It is even larger than the magnificent Napoleon III., while it has also bright red flowers, much after the tone of those of the plant bearing the name of the late Emperor of France. It is, however, more useful as a garden plant, seeing that it is hardier, and that it also produces more "grass" for pro pagating purposes. This want of side shoots is a great failing in Napoleon III., and it is frequently necessary to keep a spare plant well cut back to induce it to give fresh shoots for propagation, even the usual method of cutting down the flower-stems immediately the blooms are past occasionally failing to induce sufficient growth for propagation. In Fürst Bismarck this failing of so many of the Mule Pinks is greatly reduced, and sufficient material can generally be obtained for increase if the flowering shoots are cut back when the bloom is just over. The side growths which appear may be taken off and struck under a bell-glass or in a frame of sandy soil. S. A



A CHARMING EFFECT OBTAINED BY PLANTING WILD PINKS IN A DRY WALL.

THE ROSE GARDEN.

AMONG THE EARLY-FLOWERING ROSES.

I DO not know how to describe the fascination which a walk among the early Roses always imparts to one who has practically lived among Roses all his life, but there is a charm about the first Roses that is wanting when we have the full galaxy of beauty upon us. Among the first to claim attention are the charming little Scotch Roses that always herald the Rose season. Everyone should plant the double white, which is a dear little Rose, with tiny ball-like blooms of snowy whiteness. Then the double yellow must be grown, and one or two pinks and shades of rose. There are no good crimsons, except among the single Scotch; at least, I have not seen one. Perhaps some of our Scotch friends may know of such; if so, I should be glad of their names—I mean a good vivid General Jacqueminot crimson.

Following these Scotch Roses—in fact, almost flowering with them—we have the ever-charming Austrian Briars, the single yellow as golden as a Daffodil and the copper a wonderful bit of colour unequalled among Roses, and a colour we should be glad to see embodied in other tribes. The variety Harrisonii is most useful, also Persian Yellow. This latter is as rich in colour as Maréchal Niel, but somehow one rarely finds a good specimen of it. I should like to see the old Burghley Yellow again just as I saw it years ago at Burghley. I wonder if it is still grown. A new-comer worth growing in every garden is Rosa Hugonis. This opened with me last year on May 18.

Now we come to our modern Roses, represented by Aglaia, a lovely yellowish rambler that people are now beginning to find out how to handle, and that is by leaving it unpruned. It is rather tender and apt to leave nasty gaps after a hard winter. This comes of crossing the Polyantha species with such a tender Rose as Rêve d'Or. But we have the colour, and that is something. Electra is a lovely gem, and must not be omitted, for it is as much at home grown as a bold bedder as on an arch or pergola. Waltham Bride is a very welcome addition to early Roses. Its fragrant blooms are of the purest milky whiteness, and the buds a pretty buff shade. As a trellis Rose or on standards this variety is a great success, and would look well blended with Carmine Pillar, Ruby Queen or Robusta, all early-flowering sorts.

How can I mention the delightful Rosa sinica Anemone in order to convey an idea of its beauty? I can only say, like a famous advertisement, "try it." Its glorious, expansive blooms give one the impression of a large pinky mauve Clematis. Tea Rambler must find a place in every garden, for no early Rose gives us such exquisite buds. What a pity it is not perpetual. The new variety Bar le Duc seems to me to be too much like Tea Rambler, and until I have satisfied myself of its distinctness I cannot recommend it.

We look to the grand wichuraiana group for some of our best early-flowering ramblers, and we are rewarded with Alberic Barbier and Réne André, two of the most beautiful. The delightful white rambler Grüss an Zabern would make a good companion to Ruby Queen, and among other early-flowering climbers of merit I can name the following: Morletti, Daniel Lacombe, Blairii No. 2, alba rubrifolia, Thunbergii and fulgens, a fine and brilliant old rambler which seems to be quite overlooked. Among the Teas and Hybrid Teas we have Reine Olga de Wurtemburg, M. Desir, Mme. Alfred Carrière, Climbing Mrs. W. J. Grant and Nance Christy. This latter would make a glorious shrub Rose of a lovely shell pink shade. Leuchtstern is another Rose one is apt to drop, but it is really one of the best of the multifloras, the white eye being so distinct, and I am told it is a grand sort to grow under trees.

The Penzance Briars not only supply us with a brilliancy and variety of colour, but they give us fragrant foliage, which may be readily detected after a shower. Why cannot we obtain this fragrant foliage in other tribes? It is true the new hybrid Soleil d'Or has imparted quite a fruity fragrance to its foliage, and hybrids from it seem to possess this same fragrance in a marked degree.

The old gallica Roses are now almost forgotten, and yet I for one should be sorry to see them disappear entirely, although their flowers are nothing compared with the glorious creations of modern times. Their very names seem to carry us back to bygone days, for have we not Ohl, Kean, Letitia, D'Agusseau, Juno, as well as York and Lancaster and Rosa Mundi!

Moss Roses are always welcome, and we ought to make much of them now, for practically there are no good autumn-flowering Moss Roses. A grand crimson is Celina, a lovely colour, but small. Then we have the charming old pink, as yet unsurpassed save by gracilis, this latter being more prolific in blooming. One of the best whites is White Bath, but Blanche Moreau is a better grower. The miniature Moss De Meaux is a charming little gem of a pale blush colour, and should not be confused with the miniature Provence De Meaux, which is now almost over.

Hedges of rugosa Roses and still smaller hedges of Polyantha and China Roses were not thought of years ago, simply because most of the varieties are of modern production; but how we should miss them now! The delightful Blanc Double de Coubert makes a splendid early-flowering hedge, almost dazzling in its snowy purity. The only fault I can find with it is that its blooms soon become spoilt by heavy dew and sun. Another good rugosa, and as fragrant as it is brilliant, is Mrs. Anthony Waterer. Here our old friend General Jacqueminot has imparted to the rugosa type its own inimical perfume and almost its own brilliancy of colouring. There are other of these rugosas well worth growing, not forgetting Conrad Ferdinand Meyer, which flowered with me on an east wall last year on May 25. It is one of the *élite* of the tribe, and a Rose for every garden.

Some of the newer Monthly Roses are very lovely, and we are likely to hear much of them, especially Charlotte Klemm, a Rose as brilliant almost as Cramoisie Supérieure and two or three times larger in its blooms. Bébé Fleuri and Laure Dupont are two excellent sorts, the latter with fine large blooms, which are as good as a Tea Rose.

Of the Polyantha Roses, they may now be said to have become a very important group. The fine emanations from crosses with Crimson Rambler have provided the decorator with some real gems. There are two distinct sections of these Polyantha Roses, one allied to the multifloras, having pyramidal trusses of bloom, the other allied to the Tea-scented, having more diffuse heads of bloom. Of this latter Cecile Brunner, Perle d'Or, Aschenbrödel, Georges Pernet and Petite Constante are undoubtedly the best, and they are all now either open or soon will be.

Two old Roses that should not be overlooked, because they are so good, are Gloire de Dijon and Souvenir de la Malmaison. The former is everywhere, but often of indifferent quality owing to starved conditions of growth; and the latter still maintains its charm, although superseded in some respects by the Hybrid Teas.

Where practical, those Roses that only bloom once in the year should be allocated a position to themselves, so that when off bloom they do not mar the beauty of the perpetual-flowering sorts. P.

THE TOWN GARDEN.

PERPETUAL-FLOWERING CARNATIONS.—Where the young plants of these were stopped or pinched a short time ago, new breaks will now have been formed, and the potting into larger pots should be accomplished without delay. Too frequently these successional or serial shifts from pot to pot are rendered tedious and of little avail by being of too small a character. For example, it is almost sheer waste of time to transfer a young and vigorous plant from a 3-inch pot to another "one size larger," which is so frequently recommended to be done. The plant is really in the youthtime of its existence, a time when there should be no check to free and full development. Hence a well-established plant in a 3-inch pot should go at once into another of 5 inches diameter, so that it may be afforded an opportunity to grow away at once.

ERRORS IN POTTING.—Of these one of the commonest, and therefore probably the greatest, is the use of dirty pots, the amateur not knowing or ignoring the value of hygienic conditions to plant-life. The dirty pot may have its pores choked with disease germs, and in many another way would it constitute conditions quite uncongenial. The perfectly clean pot is to the plant what clean linen and a bath are to the individual; hence of vital importance. Loose potting is another error, and while it may be countenanced with such subjects as bedding plants, the same will not hold good with the Carnation. No plants other than those known as hard-wooded have a greater fondness for firm soils than Perpetual-flowering Carnations. Another error is that of filling the pots too full of soil, and where this is done a thorough watering—sufficient to reach the lowest root-fibres—is not possible. A plant in a 5-inch pot should have a water space of about half an inch, and this, charged with water as the plant requires it, will be found quite ample for the needs of the subject.

POTTING SOILS.—These have an importance of their own, and too frequently amateurs do not possess the right kinds. In these circumstances one would suggest the purchase of a mixture from a nurseryman or florist near by, who should also be informed as to the purpose for which it is required. At this season of the year potting soils, if long exposed on the bench, become quite dry, and in this condition are injurious to the young roots of the plants. A little water from a fine-rosed can will, with free mixing, soon put matters right, and an hour or so later the soil will be fit for use. On the other hand, soils should not be wet enough to quickly bind together.

THE YOUNG PLANTS.—To ensure these being in the right condition for potting, all that require it should receive a thorough watering the day before that operation is contemplated, in order that the superfluous moisture will have drained away. There will be no occasion to disturb the ball of the young plant, and it is important that its stem be not buried much below the original level. The plants should now be carrying from three to six young shoots or breaks, and a small stick and tie to support these will be necessary prior to the potting.

INSECT PESTS.—At this season insect pests—green fly in particular—abound, and where, as is usual with amateurs, a mixed collection of plants is grown, extra care is necessary to ensure cleanliness. To fumigate with Nicoticide or a similar thing once a fortnight is the best way to keep such insects in check, selecting a still night or a close or damp one for the operation. Equally undesirable and even more disfiguring to the plants is "rust," a vegetable fungus which is best kept down by hand-picking. S. N. N.

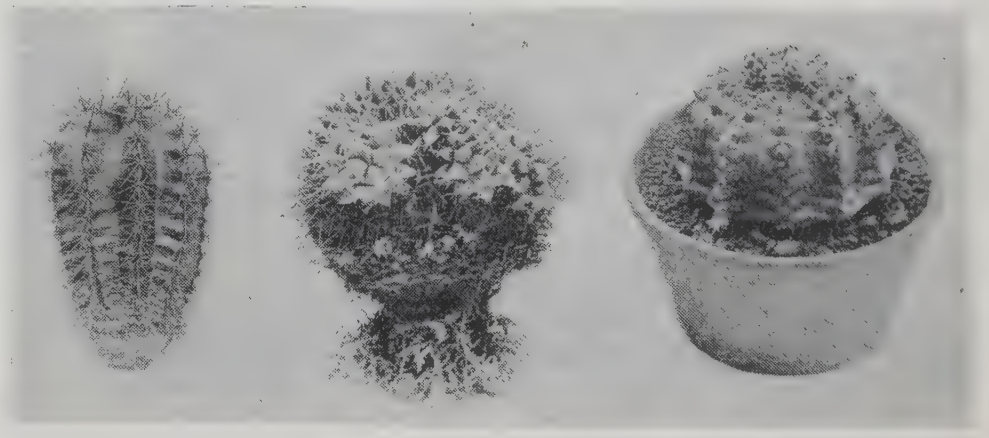
GARDENING FOR BEGINNERS.

REPOTTING CACTI.

THERE are few subjects so quaint and curious in their formation as the Cactus, which has no fewer than some 2,300 species and varieties. Not many years ago a society existed to promote the cultivation of this subject, and lthough some very excellent exhibitions were rganised, the society was only short-lived.

It is an excellent plan to devote a portion of he greenhouse to these plants, as they seldom fail o provide a great amount of interest to the growers nd their friends at all seasons. Cacti are also dapted for window and room decoration, the eculiar construction of their pores enabling the lants to withstand the dry atmospheric conditions hat prevail in most rooms. In this brief note I m more particularly concerned in describing the epotting of a few of the many forms of these urious plants.

In the accompanying photographs three forms f the Cacti, viz., the Cereus, Mammillaria nd the Echinocactus, are shown. Cereuses hrive best in a compost made up of rich sandy oam and brick rubble in equal proportions, and there be added to the foregoing a 9-inch potful f clean, crushed oyster shells to each large barrow-oad of compost, the best interests of this form of acti will be served. It is the proper thing to do hen repotting these plants to place the rougher ortions of the brick rubble over the drainage, nd the latter may well consist of oyster shells laced with their concave side downwards. The chinocereus does well in the same kind of compost, hile the Echinopsis appreciates a few pieces of harcoal added to the compost when the plants are epotted. The Hedgehog Cacti, known botanically nder the name of Echinocactus, succeed better hen repotted in a compost made up of half a part f sandy loam, half a part ballast (burnt earth), wo parts brick rubble and one part made up of qual proportions of crushed oyster shells, charcoal nd silver sand. Of the genus Mammillaria it is ell to point out that the plants do not require ny great depth of soil; as a matter of fact, such state would most injuriously affect them. aking Cacti as a whole, however, a compost that will be found to meet the needs of most plants — and this, perhaps, will apply to the requirements of most cultivators— will be found in a mixture made up as follows: Rich sandy loam and brick rubble, using one part of the former to two of the latter, with the addition of a few pieces of broken charcoal and a free sprinkling of crushed oyster shells, all well mixed together before using. The earlier half of May is the period during which repotting should be done, and from this period until August growth is usually evolved. To grow Cacti satisfactorily the surroundings should be clean and wholesome, the pots perfectly drained, and there should be a proper and efficient system of ventilation of the glass structure. Most plants may be grown in their pots or pans for several years undisturbed, repotting being done only at fairly long intervals. Repotting is often performed by growers because the plants have been over-watered, and they begin to decay in consequence, decomposition invariably commencing at the base. When decay is observed, the best thing to do is to at once cut off the upper part and, after exposing the cut end to the air for a day or two, repot forthwith.



2.—CEREUS AND MAMMILLARIA PREPARED FOR POTTING UP. ON THE EXTREME RIGHT IS AN ECHINOCACTUS PROPERLY REPOTTED.

In Fig. 1 is shown on the left of the picture a plant of one of the Mammillarias that needs repotting. Indications were observed that the plant needed repotting, and as such plants cannot very well be shaken out of their pots without damaging the growths or hurting one's self with their ferocious spines, the pot is usually broken with the sharp rap of a hammer, when the grower is enabled to deal with it. On the right of the same picture is portrayed a small plant of Cereus giganteus, a popular variety. In this case the roots began to decay, necessitating a speedy amputation of the diseased parts. The result of dealing with these plants is shown in the second picture (Fig. 2). On the extreme left is the Cereus of the previous photograph, with the decaying portion cut off. The base of this plant is made to rest on the surface soil, and the plant is maintained in an upright position either by tying it or by inserting four small stakes equidistant round about it until rooting has taken place. The plant in the centre of the picture is the Mammillaria figured in the first photograph Here the soil, &c., has been removed and decaying roots cut out, and in such a condition the plant is ready for repotting. This must be done very carefully. After adjusting the plant in position, the soil should be carefully worked in with the fingers so that the plant shall rest on its base in a proper manner; none of the growths with their spines should be buried. On the extreme right of the second picture there is depicted an Echinocactus repotted. Note the position of the plant in its relation to the surface soil and its satisfactory appearance when the repotting is completed. This is the rule that should be observed throughout, and in such circumstances the results are seldom other than quite satisfactory.

Never use a pot larger than is actually required, otherwise there is a tendency for too much moisture to surround the plant and a risk of the roots rotting in consequence. After repotting keep the plants close for a time until the rooting process is all that could well be desired. D. B. CRANE.



A MAMMILLARIA THAT NEEDS REPOTTING. ON THE RIGHT IS A CEREUS WITH ITS ROOTS IN A DECAYING CONDITION, NEEDING AMPUTATION BEFORE POTTING.

RAISING HIPPEASTRUMS FROM SEED.

No one can help admiring a batch of these plants when they are bearing a number of large, brilliantly-coloured flowers. I would, however, warn those who are inexperienced in the cultivation of Hippeastrums (Amaryllises) that the plants require a warm temperature, or one ranging from 48° while at rest to 75° when growing freely. Seeds may be sown in spring in a compost of fibrous loam, which has been cut and stacked for at least four months, two-thirds, sandy peat one-third. Sand must be added to make the whole porous and to prevent water lodging in it. Use clean, shallow pans and drain well with clean crocks. Three-parts fill the pans with the compost, sow the seeds 2 inches apart and bury them half an inch deep; then give a gentle watering. Place the pans in a warm position, plunged in a slight bottom-heat, if possible, and shade from bright sunshine. In the meantime prepare some 3½-inch pots and more compost, keeping the latter in a warm place. Especially is this advisable just before it is used. It must not be colder than the soil in which the seedlings are growing. A similar compost to that used for the seeds will do, but for subsequent repottings a small quantity of rotted manure and a 5-inch potful of bone-meal to a barrow-load of the compost will be the most suitable. When the seedlings appear, gradually expose them to the full light without causing a check to growth. Avoid over-watering, but take care that the soil does not become too dry, that is, during the growing period Do not force the growth of seedlings with strong artificial manures. When the pots are well filled with roots, some weak manure-water may be applied

occasionally. In summer-time daily syringings are beneficial when the weather is fine. This is not done in order to keep the plants free from insect pests, but to encourage healthy growth. The resting period is during the autumn and early winter months. The cultivator can readily tell when to begin to withhold water, as the leaves assume a yellow tint. When at rest keep the plants in a temperature ranging between 45° and 50°. Retain the pots in an upright position; do not turn them on their sides, and do not place them near hot-water pipes.

The rested bulbs may be started into new growth about the end of January. After repotting the bulbs the main point is to attend to the watering carefully. The bulbs should be buried two-thirds their depth in the soil. Strong ones will flower the third year. Avon.

THE FRUIT GARDEN.

STRAWBERRIES AND HOW TO GROW THEM.

THE Strawberry is a fruit by itself, inasmuch as it is produced on herbaceous plants, instead of trees or hard-wooded plants as are the rest of our fruits. For that reason its culture differs to some extent from that of any other kind of fruit grown in our gardens, and it may be regarded as an ideal subject for the amateur to take up. In preparing the soil for the beds it ought to be dug from 18 inches to 2 feet deep, and a heavy dressing of partially-decayed manure well mixed with it, particularly in the top spit, as the work proceeds. Strawberries are gross-feeding plants, and quickly show signs of any scarcity of food. If, as is usually the case, the site selected for the bed was dug two spits deep and then cropped with early Potatoes, it will suffice if it is given a good dressing of manure and well dug one spit deep. There is no doubt whatever that the best time of the whole year for planting new beds is during August and the early part of September, and to enable this to be done, the earliest runners that form must be layered. By planting at the season named, the plants get well established before the winter, and will give a medium crop of first-quality fruits the following summer. Failing the period named, some growers resort to spring planting; but it is not wise to allow plants put in at that season to crop the following summer. Consequently a whole year is lost.

Before going further, the layering of young plants must have attention. This is one of the easiest operations in fruit-growing, yet it is one that the amateur is apt, through ignorance, to make fatal mistakes over. It has already been stated that early layering should be resorted to, and the very first runners, or stolons, that appear on the plants must be carefully looked after. Many growers advise the retention of a few plants solely for this purpose, the flowers of which are picked off as they appear. Where possible, this method is certainly advisable, as the whole vigour of the plant is thrown into the runners. Good and early runners can usually be secured from young plants that are bearing fruits; but care must be taken to avoid layering young plants from those parents which are barren. In a bed of Strawberries there is almost certain to be a few plants that do not produce flowers, and such are frequently prolific in runners, which, if layered, are likely to inherit this undesirable trait of their parents.

The ideal method of layering is to peg the young plantlets on to soil that has been placed in 3-inch pots. This may either be good prepared potting soil or, if the natural soil of the bed is fairly light and easily worked, this may be used. Drainage in the bottom is not necessary, but may be used if desired.

When filled, the pots should be plunged to their rims in the soil between the rows of plants, and the plantlets pegged into the soil with large hair-pins or small wooden pegs, or, failing either of these, a good-sized stone may be laid on the runner close to the plantlet, the object being to keep the latter in position until rooted. Squares of turf are sometimes used, and a slipshod method is to let the plantlets root in the bed and then lift them, a serious check being the result. For forcing purposes the young plants are sometimes layered into properly-drained 5-inch or 6-inch pots. After layering, the soil in the pots should be kept moist by watering if the weather proves dry, and in a fortnight or three weeks the soil in the pots will be filled with roots. When the young plants have reached this stage they are ready to be severed from the parents, which is easily done by cutting through the runner on each side of the pot. If left on the parents too long, the young plants will root through the bottoms of the pots, and their removal then will cause a severe check to growth. After they are taken from the beds, stand the pots containing the plants in a shady position for a week or ten days, and see that they do not suffer for the want of water, a light damping overhead morning and evening assisting them very much during hot weather. When they have quite recovered from the slight check that is inevitable in their removal, the young plants are ready to go to their permanent quarters, and the earlier they are planted the better in every way. J. C.

(To be continued.)

DAFFODIL NOTES.

Birmingham Reflections.

THE Midland Daffodil show of 1911 is past and over. It was a magnificent show, and in many respects eclipsed all its predecessors; but in advances of the varied types it did not appear to me that there was much improvement. For one thing, the unpropitious season and the late date of the fixture prevented such a flower as Crœsus being shown at the top of its form. Speaking very generally, I consider that the triandrus hybrids, the new maroon ribbon-edged Poets of Engleheart, the large and varied assortment of the same race that were on Mr. Wilson's stand, and the fine lot of flowers that constituted the open competitive Section A were the places where the greatest changes were to be seen. Among the more remarkable flowers one must not forget the perfect Poet shown by Mr. Crosfield in the single bloom classes—Coronation, a beautiful round flower with wide overlapping perianth segments of great substance and a deep yellow eye edged red. I do not think we have any larger flower of this particular type. The specimen exhibited measured 3 inches across, and had an eye half an inch in diameter. Another remarkable flower was the yellow Ajax, Harold Cartwright. It marked a step in the evolution of a florist's trumpet; it was so even and symmetrical in all its parts. Possibly some judges would say its trumpet was on the short side—it was 1½ inches long and 1⅞ inches wide at the mouth—and I confess that I think it would have been a more pleasing bloom had it been longer. Breaks away from the ordinary were to be seen in a great all-over-the-place flower, Prince Fushimi, and in a poorly-perianthed trumpet, Pink Beauty. The first had a large cup with strikingly irregular blotches of orange and white round the edge, and the second was certainly the pinkest thing I have seen in the way of a Daffodil trumpet. Accordion, a fine large incomparabilis, had a sort of pleated cup, with the pleats radiating from the centre, and each one outlined with a wire edge of red. This seems to suggest a new development in cups.

Coming now to what I liked for one reason or another, I place among the most lovely Heroine, often called a glorified Albatross; but it is more than this. The stiff, widely-campanulated perianth, although somewhat ribbed, has a good look about it, and sets off the bright orange red edge of the large cup to great advantage. Ormolu in a large bunch was superb. I once thought I liked violent contrasts, but I have changed my opinion. Then I would have liked Sheba, with its very red eye (seven-eighths of an inch in diameter), the best; now I certainly prefer Ormolu. Both are beautiful Poet varieties; in fact, some thought Sheba one of the best things in the show. Both have the same-sized eye; both have large 3½-inch-diametered perianths; but the softer, more orange-shaded red of the latter gave the flower a quieter and a pleasanter aspect. Socrates always looks impressive, and previous favourable impressions were confirmed. Sarchedon is a grand Poet of great substance. I believe one of our great seedling-raisers has bought the whole stock for breeding purposes.

The variety Miss Willmott was shown in good condition, and for effectiveness in a market bunch has few equals. Crœsus, when it is shown in its best condition, is, I think, very nearly the best of the large orange red cups. When I referred to it three weeks back I had not seen so much of it as I have now, and my opinion has considerably altered. I have seen the pale primrose perianth as smooth and solid-looking as the most fastidious critic could desire. Here, again, a great charm of the flower is the delicious harmony of cup and perianth. Ivorine, with its large, quite flat, pale yellow eye and its undulating, overlapping pure white perianth, is an attractive bloom, and one that stands out from others, because there are not many like it.

For anyone who wants a white trumpet that is suitable either for showing or for the garden, I can very strongly advise a purchase of Florence Pearson. I believe if it goes on as it has begun it will become a very great garden plant, and in all likelihood take the place of Mme. de Graaff. It has a very robust constitution and a good long stem. It increases quickly and is very free-flowering. It is seldom that I can recommend an expensive variety with more confidence. One of the nicest and brightest bunches in the show was a lovely vase of Radiant; in my notes I called it an improved and intensified Eyebright. The white perianth is more white and the eye is larger and brighter. It was the flower that first caught my eye when I began to look at Mr. Wilson's grand gold medal collection.

I must on no account omit Sunrise. Well-grown flowers are very effective and add to the general appearance of the choicest collection. It is a most distinct Daffodil. The white perianth has a broad, pale yellow flame running from the centre down each segment, and the cup is widely expanded and of a beautiful tone of red orange, with a deeper shade at the edge. I see the price has gone up this year—not a bad test for a flower.

I could write of Crosfield's 033, Mrs. W. O. Wolsey, Arctic Light, Bonfire, Charles Surface, Maud Müller, Matthew Arnold, Firetail, Middleton Favourite, Chintz, Sybil Forster, Honey Maid, Endurance, Cygnet, Henry James, Barr's 585, Hypatia, Moonbeam, Charles, Soval, Gay Bird and many others; but my reflections must stop. I remember the 1911 show as the greatest of a long series, full of good things, but with no one outstanding novelty. Joseph Jacob.

THE PARENTAGE OF ROSES.

THE following list of the world's Roses and their parentage has been compiled by Mr. Robert Daniel, 38, Russell Road, Fishponds, Bristol, and by his kind permission we are enabled to publish it. As far as possible we hope to publish a portion each week until completed. The task which Mr. Daniel has undertaken has undoubtedly been one of great magnitude, and the information given by him will, we feel sure, be appreciated by a st number of our readers. The name of the variety, section to which it belongs d date of introduction are all given where possible. A key to the abbreviations ed will be found below.

bé Bramerel	H.P.	Guillot f.	1871	Seedling Geant des Batailles
Cretin	Ch.T.	Mille T.	1908	Seedling Laurette Messimy
Girardin	B.	Bernaix	1882	Louise Odier × Hermosa
Lauray	H.P.	Trouillard	1864	Seedling Geant des Batailles
Raynaud	H.P.	Guillot f.	1863	Seedling General Jacqueminot
Remy	Tea	Mille T. f.	1903	Seedling Dr. Passot
l-el-Kader	H.P.	E. Verdier	1861	Seedling General Jacqueminot
l Grand	H.P.	Damaizin	1865	Seedling Jules Margottin
lle-Weber-Paté	P.P.	Lambert	1905	Thalia × Eugène Fürst
ndance	P.P.	Henderson	1910	Clothilde Soupert × Souv. du President Carnot
ille Chesbron	H.P.	Rousset	1894	Seedling Mme. Eugène Fremy
,, Gonod	H.P.	Gonod	1864	Seedling Jules Margottin
laide Moulle	H.W.	Barbier	1902	R. wichuraiana × Souv. de C. Guillot
le de Bisshop	Tea	Mille T.	1903	Seedling G. Nabonnand
Hamean	Tea	Ketten	1903	Mme. Caro × Luciole
Van den Heede	H.T.	Lambert	1905	Erzherozin M. Dorothea × Souv. de Mme. Eugene Verdier
nchen Müller	P.P.	J. C. Schmidt	1906	Crimson Rambler × Georges Pernet
v. Thoran	H.Sp.	Geschwindt	1886	R. alba × R. arvensis capreolata
ia	M.S.	Lambert	1895	R multiflora × Rêve d'Or
ée Cochet	H.T.	Soupert	1901	Souv. de Mme. E. Verdier × Caroline Testout
Vibert	N.	Vibert	1828	R. indica × R moschata
a carnea	H.P.	Touvais	1867	Seedling General Jacqueminot
eric Barbier	H.W.	Barbier	1900	R. wichuraiana × Shirley Hibberd
ert Durand	Tea	Schwartz	1905	Luciole × André Schwartz
Hoffmann	Tea	Welter	1904	Souv. de C. Guillot × Maman Cochet
James Nottidge	H.T.	Welter	1908	Caroline Testout × Alfred Colomb
Patel	Tea	Godard	1896	Ma Capucine × Beauté Inconstante
Stopford	Tea	Nabonnand	1898	General Schablikine × Papa Gontier
ertine Borguet	Tea	Soupert	1894	Comtesse de Frigneuse × Isabelle Nabonnand
xandre Girault	H.W.	Barbier	1907	R. wichuraiana × Papa Gontier
,, Trimouillet	H.W.	Barbier	1903	R. wichuraiana × Souv. de C. Guillot
ed Colomb	H.P.	Lacharme	1865	Seedling General Jacqueminot
e Furon	H.T.	P. Ducher	1885	Lady M. Fitzwilliam × Mme. C. Guinoisseau
Garnier	H.W.	Fauque	1907	R. wichuraiana × Mme. Charles
Hamilton	Ch.	Nabonnand	1903	Nabonnand × common China
Kopke-Demoy	H.T.	Soupert	1907	Souv. de Mme. E. Verdier × Perle von Godesberg
Roosevelt	H.T.	Durfee	1902	Sport Mme. Abel Chatenay
Rousseau	P.P.	Rose Vilin	1903	Seedling Marie Pavic
e Schneider	Tea	Nolliant	1908	Sport Nardy
nonse Damaizin	H.P.	Damaizin	1861	Louis XIV. race
,, Karr	Tea	Nabonnand	1878	Seedling Duchess of Edinburgh
,, Soupert	H.P.	Lacharme	1883	Seedling Jules Margottin
ce Lorraine	H.P.	Duval	1879	General Jacqueminot race
erufer	C.C.	Lambert	1909	Seedling Grüss an Teplitz
narker	H.T.	J. C. Schmidt	1907	Kaiserin Augusta Victoria × Luciole
arez del Campo	H.Rug.	Gravereaux	1900	Gloire de Dijon × R. rugosa
ateur C. Antoine	H.T.	Ketten	1910	Ludwig Winter × Mme. Abel Chatenay
,, Teyssier	H.T.	Gamon	1899	Seedling Souv. de Mme. Eugénie Verdier
ber	P.W.	G. Paul	1908	Seedling Jersey Beauty
édé Giat	Tea	Godard	1904	Souv. de C. Guillot × Claudine Perreau
élie Gravereaux	H.Rug.	Gravereaux	1902	R. gallica × Eugène Fürst × R. rugosa
erican Belle	H.P.	J. Burton	1893	Sport American Beauty
Martin	H.P.	Chedanne	1907	Seedling × Eugène Fürst
ral La Peyrouse	H.P.	Guillot f.	1863	Seedling General Jacqueminot
elin	H.C.	Noisette	—	R. indica × R. turbinata
ré Despartes	H.P.	Standish	1862	Seedling Eugène Appert
Fresnoy	H.P.	Pernet	1868	Seedling Victor Verdier
Gamon	H.T.	P. Ducher	1909	Unnamed × unnamed
ela Mull	H.T.	Hinner	1902	Mrs. W. J. Grant × Baron N. de Rothschild
Peluffo	H.T.	Soupert	1904	Duchesse Mathilde × Kaiserin Augusta Victoria
a Chartron	Tea	Yve. Schwartz	1896	Kaiserin Augusta Victoria × Luciole
de Diesbach	H.P.	Lacharme	1857	Seedling La Reine
Jung	Tea	Nabonnand	1903	Marie van Houtte × General Schablikine
Rubsamen	H.W.	Weigand	1904	Chance seedling R. wichuraiana
Scharsach	H.P.	Geschwindt	1890	Baroness Rothschild × Mme. Lauriol de Barny
e Leygues	Tea	Nabonnand	1905	General Schablikine × Comtesse Bardi
Marie de Montravel	P.P.	Rambeau	1879	R. multiflora alba × Mme. de Tartas
,, ,, Soupert	H.T.	Soupert	1903	Ernest Metz × Mme. Jules Grolez
,, von Ferstel	H.T.	Welter	1908	Kaiserin Augusta Victoria × Christine de Noue
ette Murat	D.T.	Levet	1884	Seedling Gloire de Dijon
i Welter	Moss	Welter	1907	Cristata × La France
ine Ducher	H.P.	Ducher	1866	Seedling Mme. Domage
Mouton	H.P.	Levet	1874	Seedling La Reine
Rivoire	H.T.	P. Ducher	1895	Dr. Grill × Lady M. Fitzwilliam
inette Durieu	Tea	Godard	1891	Seedling Mme. Caro
nin Reschal	Tea	Nabonnand	1904	M. Tillier × Papa Gontier
heker G. Hofer	H.T.	Welter	1900	Caroline Testout × Mme. Lambard W. F. Bennett
iduc Joseph	Tea	Nabonnand	1892	Seedling Mme. Lambard
iduchesse Elizabeth Marie	P.P.	Soupert	1898	Mignonette × Luciole
,, M. Immaculata	Tea	Soupert	1887	Mme. Lambard × Socrates
	H.W.	G. Paul	1909	R. wichuraiana × Tea Rambler
ur Chiggiato	Tea	Ketten	1898	Safrano × Souv. de Victor Hugo
de Sansal	H.P.	S. Cochet	1855	Seedling Geant des Batailles
R. Goodwin	Pern.	P. Ducher	1909	Seedling × Soleil d'Or
enbrödel	P.P.	Lambert	1903	Petite Leonie × R. lutea punicea

—alba; Alp.—alpine, *i.e.*, Boursault; B.=Bourbon; Bks.=Banksia; Brt.=bracteata; C.C.=crimson China; Ch.=China; Ch.T.=China Tea; Dam.=Damask; D P=Damask Perpetual; D.W.=dwarf wichuraiana; Gal.=gallica; H.B.=Hybrid Bourbon; H.C.=Hybrid China; H.M.=Hybrid Musk; H.N.=Hybrid Noisette; H P.=Hybrid Perpetual; H Rug.=Hybrid rugosa; H.S.B.=Hybrid Sweet Briar; H.Sp.=Hybrid species; H.T.=Hybrid Tea; H.W.=Hybrid wichuraiana; Law.=lawrenceana; Mic.=microphylla; M.S.=multiflora scandens, *i.e.*, Climbing; Polyantha; N.=Noisette; Pern.=pernetiana; P.M.=Perpetual Moss; Pom.=Pompon; Pr.=Prairie; Prov.=Provence; P.S.=Perpetual Scotch; P.P.=Perpetual Pompon, *i.e.*, dwarf Polyantha; Rug.=rugosa; Sp.=species; Sc.=Scotch; Vil.=villosa.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Cactus Dahlias for Exhibition (*A. G.*).—Many of what are described as the finest exhibition Cactus Dahlias are yet hardly in commerce, or are dear if on sale. Snowdon (pure white), Mauve Queen (soft heliotrope), Mrs. Mawley (clear yellow), J. B. Riding (reddish orange), C. E. Wilkins (salmon pink), C. H. Curtis (scarlet crimson), Clara (soft mauve pink), Good Hope (deep rich maroon), Elsie Turner (fawn or chamois), Ruby Grinsted (rich pink shade) and Primrose (sulphur yellow) are all good. To be enabled to select twelve diverse blooms for exhibition, you need at least not fewer than eighteen varieties. Plants, if to be purchased, should be ordered at once from some well-known Dahlia-grower who has all the varieties named in stock. You would not like to have some inferior varieties sent you as substitutes.

Stock-flowered Larkspur (*E. C. A.*).—It is just possible that the sowing of the seeds very thinly in boxes or pans of light sandy soil, covering them with sheets of glass till the seedlings appeared, would in your district meet the case. Wet and uncongenial or heavy soils, or much rain at the moment of vegetating, are ruinous to a large number of choice annuals whose seeds may have been of the finest quality procurable, and the avoiding of these things may reward you with a full measure of success. Keep the soil of the seed-pan or box just moist. In light soils over gravel and sand and in favoured localities fine beds are produced by open-air sowing about mid-April. If you do not mind the trouble, sow a dozen pots with about four seeds in each, just pricking them into the soil. Thus treated, the plants would receive no check from the transference to the open ground.

ROSE GARDEN.

Pruning Roses (*H. W.*).—The Maréchal Niel in a pot need not be pruned this season, with the exception of removing a few inches of its extreme ends. If it is a good specimen with well-ripened growths, it should give you bloom this year; but it is rather strange that the plant has made no new growth yet, seeing that it has been in a warm greenhouse since January. The Dorothy Perkins need not be pruned the first year, although it is advisable to cut back one or two growths to about 2 feet and retain the others nearly full length. You must not expect a lot of bloom the first season, but you will most likely have some.

Roses for hedge in a German garden (*Niebusch*).—There are large numbers of Roses suitable for hedges, and many sorts could be grown that are usually overlooked. For instance, such a fine big crimson Rose as J. B. Clark would be a grand sort for a hedge about the height you desire, viz., 5 feet, and another one to mix with it would be Grüss an Teplitz, a very brilliant, free and fragrant Rose. A good pink sort would be Conrad F. Meyer, but it is perhaps rather too vigorous, although, if desired, its growths may be tied down if they reach too great a height. Another excellent pink is Armosa, and a deep rose pink, Zepherin Drouhin. You would like this latter. It is one of the most charming Roses in existence. For white you could plant Frau Karl Druschki. As you desire stronger growers for arches to be interspersed in the hedge, we should recommend: Pink—Blush Rambler or Dorothy Perkins; red—Hiawatha or Rubin; white—White Dorothy or Grüss an Zabern. Be careful to dig the soil deeply, fully 2 feet deep, and work in plenty of

manure. Plant the Roses 3 feet apart, and as you propose to plant a double row, the rows would only be 15 inches apart, arranging the plants thus * * * * *. Prune back the plants to about 3 feet the first season, excepting the Roses for the arches, after which very little pruning will be needed, only to cut out some of the old wood occasionally. We shall be pleased to afford you any further information you may desire.

MISCELLANEOUS.

Wood-ashes and soot (*S. B. P.*).—The ashes from garden rubbish of which you speak could not do your Bamboo and Pampas Grass any harm, and would probably do good. Soot would have a beneficial effect, but we advise you to procure a large tub, put the soot in a bag and place it in the tub; then fill the tub with water and allow it to stand for twenty-four hours, giving it a stir occasionally. The water may then be applied to the plants. By sowing the soot dry a considerable amount of its manurial properties is lost, especially in the event of dry weather prevailing.

Carnations gone wrong (*Blandford*).—We can find no insect or fungus to account for the trouble. Have the plants been kept in a damp atmosphere?

Carbon bisulphide (*G. H. W.*).—Carbon bisulphide used at the rate of half an ounce to the square yard for injecting into the soil in order to destroy animal pests will do no harm to the roots of any plant so long as it does not come into actual contact with them.

Applying basic slag to lawn (*S. C. R.*).—This is an excellent manure to apply for improving grass lawns. A good way of applying is by mixing 6lb. of basic slag in three barrow-loads of rich garden soil, using this quantity to one rod or perch of the lawn. The soil should be well raked into the grass and afterwards rolled, choosing a dry day for the purpose.

Spraying Roses in spring (*R. M. S.*).—Just now it is a good plan to spray the bushes with a paraffin emulsion. This can be readily made by dissolving 10oz. of soft soap in a pint of boiling water; add 5oz. of paraffin and stir vigorously. For use dilute it with 10 gallons of water. This is a good spray for scale which affects old bushes and stems of standards, and is also a good destroyer of the larvæ of several pests that remain with us throughout the winter. Later, or about the end of April and throughout May, you should spray with Tobacco wash or arsenate of lead to destroy caterpillars of the winter moth and Rose grub.

A faulty propagating-house (*Anxious*).—We should have been better able to advise if you had given us some idea of how your small propagating-house is heated. If there is bottom-heat set up by steam from a shallow tank of water through which the hot-water pipes pass, as is often done in propagating-houses, it might be an advantage to allow the tank to run dry and thus stop the steam, which is sure to cause a large amount of moisture to condense. If not, a little crack of air left on at all times except during actual frost might be beneficial, and, of course, the less moisture there will be.

Fruit trees in pots (*R. W.*). — The following has been found an excellent manure to apply for the successful growth of the Gooseberry, whether in the open ground or in pots. For the open ground the following proportions should be used: Nitrate of soda, ½cwt.; superphosphate, ½cwt.; sulphate of iron, ¼cwt. Mix well together and apply at the rate of 1lb. to 3 square yards. Smaller quantities may, of course, be made. When applied to Gooseberry trees in pots, the most effective way of applying it is by mixing and dissolving a handful of the manure in three gallons of water, and watering the trees with this and clean water alternately. Later on—say, when the fruit is approaching its full size, but before it begins to ripen—you could occasionally with advantage substitute the potash you mention for the above manure.

Contents of cesspool (*Rector*). — There are certain objections to the application of the contents of cesspools direct to the soil which is to be cropped immediately afterwards, one of which, we think, is fatal, *i.e.*, that the produce from the soil thus manured, whether of the Cabbage tribe or anything else, is not always free from faint traces of the unpleasant odours of such sewage. Moreover, its application in a liquid form to the soil and digging it in afterwards is not pleasant or desirable work. Nevertheless, the material in question is a valuable manure, and should be taken the greatest care of. If treated in the following way its strength and fertilising qualities will be fully preserved and the unpleasant elements eliminated. Dig a pit in any out-of-the-way corner of the garden furthest from the house, say, 1 foot deep and large enough to hold the contents of the cesspool for six months, empty the contents into this, and then cover over with a layer of soil 1 inch deep. Serve in the same way after each emptying. Soil thus applied over sewage is a perfect odoriser.

Name of fruit. — *T. Lester.* — Apple Chelmsford Wonder.

Names of plants.—*H. A. L., Hendon.*—Tiarella cordifolia, the Foam Flower.——*W. Dodson.*—Narcissus Leedsii stella.——*E. T. M.*—1, Saxifraga Androsacea; 2, S. muscoides; 3, S. m. atropurpurea; 4 S. cæspitosa; 5, S. Wallacei.——*C. H.*—Billbergia nutans.

SOCIETIES.

PERPETUAL FLOWERING CARNATION SOCIETY.

THIS society held its tenth show in the Royal Botanic Gardens, Regent's Park, on May 2 and 3. As might have been anticipated in the Coronation year, the show was a good one. Large groups of cut blooms were the leading feature, and competition in the trade classes was in most cases very keen. There was, however, little competition in the amateur classes.

COMPETITIVE CLASSES.

A gold medal for the best group of cut Carnations, not less than twelve varieties, was secured by Messrs. Young and Co., Cheltenham, for a bold display, in which White Enchantress, Winsor and Hon. Lady Audley Neeld were prominent varieties. The second place and silver-gilt medal were gained by F. C. Harwood, Esq., Torquay, with a very creditable group.

For the three best vases of British novelties, Mr. C. Engelmann came first with Carola, Regina and Rex. Silver-gilt medal. Mr. W. E. Wallace, Eaton Bray, Beds, was a good second with May Day, Delight and Scarlet Glow. The last-named variety was exceptionally good. Silver medal.

For American novelties, Mr. B. E. Bell, Guernsey, was first. The yellow Whitcombe Riley was well shown by him. Silver-gilt medal.

Two varieties of market Carnations, sixty blooms of each variety, to be shown in two vases of thirty-six blooms each, and two boxes of twenty-four blooms each, packed for market, each variety separate. First prize, the Covent Garden Bowl and the Perpetual Flowering Carnation Society's silver-gilt medal: First, Mr. W. E. Wallace. The varieties shown were Rose Pink Enchantress and White Enchantress. This was one of the most coveted prizes in the show. Second, Thatcham Fruit and Flower Farm, near Newbury. Mr. Engelmann and Mr. H. Burnett were among the competitors in this class.

For twenty-five blooms of one variety, Mr. Wallace secured first place with a grand vase of Enchantress; second, Mr. B. E. Bell, with the variety Admiration.

In a similar class, Mr. A. Smith, Enfield Highway, was first, followed by Mr. Wallace.

For twenty-five blooms, to be selected from varieties named in the schedule, Mr. Wallace secured first place, showing the variety Winsor in good condition. Mr. B. E. Bell was second with the same variety.

In a similar class, Mr. Bell was first with Mrs. C. W. Ward; second, Mr. Engelmann, with Mrs. T. W. Lawson; third, Mr. A. F. Dutton, Iver, Bucks, with Lawson Enchantress.

Mr. Wallace was first for a vase of white blooms with White Enchantress; second, Mr. B. E. Bell, with Judith.

Mr. A. F. Dutton secured first place with Beacon among scarlet varieties; second, Mr. B. E. Bell, with a good vase of Britannia.

For twenty-five blooms, crimson, Mr. Engelmann was first with Carola; second, Mr. A. F. Dutton, the variety being Harlowarden.

For miscellaneous varieties, Mr. Bell was first with Rose Doré, and Mr. Burnett second with Mikado.

For one vase of thirty-six blooms, effectively arranged, Mr. Wallace came first with a grand lot of the pink May Day; second, Mr. Bell, with a combination of pink and crimson, Winsor and President respectively.

For one basket of Carnations, arranged for decorative effect, Mrs. R. F. Hammond, King's Road, Sloane Square, was the winner and only exhibitor.

Group of Perpetual-flowering Carnation plants, to be arranged on a semi-circular space to occupy 25 square feet. Small Ferns or other plants may be used for groundwork. First prize, Lord Howard de Walden's Silver-gilt Challenge Vase: First, Mr. F. May, Hounswood. There was no competition for this handsome prize.

The decorated dinner-tables were certainly a feature of the exhibition, and looked particularly well with a good background of Palms in a spacious conservatory. First, Mr. A. D. Ruff, Sharnbrook, Beds; second, Mr. F. G. Bealing, Bassett, Southampton.

The amateurs' class for table decoration was won by Mrs. Ruff, followed by Miss F. Muscutt, Wolverton, and Mrs. W. Maslin, Addlestone, Surrey.

The amateur classes were, on the whole, rather disappointing. Sir Randolf L. Baker, Bart., Blandford, Dorset (gardener, Mr. A. E. Usher), was among the most successful exhibitors, and his large group, which secured the society's silver-gilt medal, is worthy of special mention.

Six blooms of pink shade: First, Sir Randolf Baker, Bart.; second, Lord Gerard; third, Lord Howard de Walden. The variety Rose Pink Enchantress was shown by all three exhibitors.

The class for six blooms of a crimson variety was well contested. First, Lord Gerard; second, Sir Randolf Baker, both showing Carola; third, Lord Howard de Walden, with Crimson Glow.

NURSERYMEN'S GROUPS.

Messrs. Stuart Low and Co., Enfield, showed a capital lot of Carnations, including Winsor, Hon. Lady Audley Neeld, May Day, Lady Alington and Mikado. A number of interesting Australian plants, such as Acacias, Boronias and Correas, were shown by the same exhibitors.

Mr. G. Engelmann, Saffron Walden, Essex, secured a gold medal for a first-rate collection of cut blooms. The variety Carola was represented by some admirable flowers. Other varieties worthy of special mention were Red Lawson, Winsor, Enchantress, White Perfection and some promising seedlings so far unnamed.

A silver-gilt medal was awarded to Messrs. W. Cutbush and Son, Highgate, for an effective group comprising most of the up-to-date varieties.

Mr. H. Burnett, Guernsey, gained the society's gold medal for a bright display of such varieties as Britannia, Pluto (deep crimson), Marmion, White Enchantress, Mrs. W. J. Hunter (like Rose Doré in colour), Scarlet Glow and a new pure white seedling.

Messrs. Felton and Sons, Hanover Square, W., showed the Lyon Rose and Gerberas together. The delicate colouring of these two distinct flowers harmonised when arranged together in a most pleasing manner.

NEW VARIETY.

The only award of merit went to Mr. C. F. Waters, Deanland Nursery, Balcombe, Sussex, for a new deep cerise variety named Edith Waters. The variety is very free-flowering, fragrant and of good growth, judging by the plants that were exhibited growing in pots.

BOURNEMOUTH GARDENERS' ASSOCIATION.

MR. J. CROOK of Camberley, Surrey, gave a very instructive lecture on "Propagation by Seeds *versus* Cuttings" to an appreciative audience on May 2. As previously mentioned in THE GARDEN, a substantial prize is to be awarded to the member who gains the highest number of points for his exhibits during the year. At this meeting several members showed a number of pot plants and cut blooms exceptionally well. Mr. Nippard had perfect plants of Cinerarias, a noble specimen of Schizanthus and very charming pots of Mignonette. Mr. G. Tompkins had some grand spikes of East Lothian Stocks, beautiful plants of Schizanthuses and Cineraria stellata. Mr. Pearce staged a bright collection of cut flowers, the show Pelargoniums and Gloxinias being very noteworthy. Mr. Crook brought some of his beautiful Polyanthuses, also a dish of Apple Sturmer Pippin. These, he said, were to show how easily Apples could be kept fresh and firm throughout the winter in an ordinary shed if the frost is just excluded, and to prove that expensive fruit-rooms were not necessary. Mr. King of Parkstone presided. The lecturer, at the beginning, said there was plenty of room at the top for the best produce, but none at the bottom, as it was already overcrowded there. He said that stocks would gradually become weaker if propagation was always done by cuttings and not occasionally by seeds. If plants were sometimes propagated by seeds and then by cuttings, the vigour of the stock would be well maintained. He instanced Salvia patens. The plants, he said, would die out in about six years if propagated by cuttings solely. After three years the old plants should be discarded, new stock raised from seeds, and then propagation by cuttings might be resorted to again. The common Primrose, he mentioned, died out after three years. Plants still grew on the hedge banks and other places, but they were young ones, the result of naturally-sown seeds. In these days Cyclamen were very successfully grown in a short period from seeds, and he deprecated the retention of corms after the second year; but he remembered the time when a gardener prided himself on growing corms seven years old. Mr. Crook referred to Potatoes, Seakale and Rhubarb, and said he had proved that it was absolutely necessary to raise stock occasionally from seeds if the proper vigour of the plants was to be maintained. The thongs of Rhubarb and Seakale got weaker; but if plants were sometimes raised from seeds, the thongs of such plants were strong and suitable for future propagation for a time only. Mr. Crook said he had succeeded in saving seeds of Begonia Gloire de Lorraine, whereas many persons thought that seeds would not mature on the plants. The pods of seeds that ripened on his plants were those formed after the latest flowers had developed, which, he said, were mainly female blooms. [It would be interesting to hear if the seeds were fertile.—ED.] The lecturer gave many instances in connection with various kinds of plants as to the benefit that accrued when stocks were raised from seeds; to uniformity, which followed careful selection, and the resultant strengthening of the stocks. A very animated discussion followed the lecture, and Mr. Crook replied in an interesting way to a number of questions that were put to him. Votes of thanks were accorded to the lecturer and chairman.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of this association was held in the hall at 5, St. Andrew Square, Edinburgh, on the evening of May 3. There was a good attendance, presided over by Mr. W. H. Massie of Messrs. Dicksons and Co., the president of the association. The exhibits were both numerous and beautiful, and the hall presented quite a gay appearance. Among the exhibitors were Messrs. Dicksons and Co., who showed a group of the dwarf Polyantha Rose Orleans; Mr. W. G. Pirie, gardener to Mr. C. W. Cowan, Dalhousie Castle, who exhibited a nice collection of choice Narcissi; Messrs. Dobbie and Co., Edinburgh, who sent Begonia Prima Donna; Mr. Porter, Davidson's Mains, who exhibited Deutzias; and Mr. W. Williamson, Logie Green Nurseries, who had good seedling Rhododendrons.

The announcement was made that the prizes offered for the best short papers by young members read at the April meeting had been awarded to the following: First prize to Mr. C. B. Roy, Royal Botanic Gardens, Edinburgh, for his paper on "The Young Gardener's Outlook." Second prize to Mr. M. Phillips, Granton Road Nursery, Edinburgh, for his paper on "Fern Raising and Growing." It was also announced that the sum of £80 had been given to the association by the executive of the Scottish National Exhibition for the proposed horticultural institute, this being part of the surplus from the exhibition. The usual formal business was also transacted.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE WILD GARDEN IN SPRING.

At no time of the year is the wild garden more beautiful or more worthy of attention than during the last few weeks of winter and the early spring months, for throughout that period there is apparently no end to its attractions, as no sooner have we turned from one pleasant feature than another presents itself, only to be supplemented and multiplied many times over by other beautiful effects. The time for planting has gone by; but this is the period to work out schemes for future use, and the would-be planter will be wise to carry his note-book wherever he goes, in order that he may jot down any particularly effective grouping of plants which claims his attention or any new idea which may occur to him. A stroll through the woods of Kent, Hertfordshire, Buckinghamshire or elsewhere is time well spent, for many of these woods are brimful of suggestions, Nature having dealt out showy flowering plants with a lavish hand. The lanes and woods of the South-West Counties, again, afford much food for thought, and the visitor returns with visions of Fern-clad walls and banks, with hosts of flowering plants intermingled. Such effects as these are the ones which the gardener must try to foster, for it is entirely in his hands as to whether the wild garden is to be a success or not. The keynote to the whole scheme must be simplicity, and anything of an artificial, formal nature must be avoided.

Turning to our native woods, what more beautiful effect can be imagined than wide stretches of common Primroses, relieved here and there by trailing Ivy, Wood Anemones, Violets and Wood-sorrel? while the more open meadow-land near by is aglow with Cowslips. Such effects as these may, with a little care, be introduced into the park or woodland surrounding a residence, while the use of proper exotic plants makes it possible to add considerably to our showy native plants. The value of native plants, however, for this kind of work cannot be overestimated, and people would often do better to rely on them alone, rather than plant the unsuitable subjects one sometimes meets with.

In grassland many picturesque effects are noticeable in spring from the various Narcissi. Here and there the tiny N. minor occurs wild, and where this happens it is the forerunner of the other kinds, for its flowers may be found any time after the beginning of February. The double-flowered Daffodil is another early-flowering kind, for it is frequently at its best before the end of March. This is effective wherever it is found, whether growing in wild, irregular groups in the open, as solitary clumps in woods, or on the bank of a lake or stream where its nodding flowers are reflected in the water.

April finds the majority of the Narcissi in bloom and many acres beautiful with such kinds as Emperor, Empress, Sir Watkin, incomparabilis, Leedsii, Barrii and Poeticus. Unfortunately, a discordant note is sometimes struck by improper planting, and one sees formal-shaped clumps painfully regular in size and distribution. Such planting must at all costs be avoided, and that is one reason why the planter should make special note of areas which have been well planted. It is often difficult to get men to plant tastefully, for while half-a-dozen men may be given similar instructions and shown exactly what is wanted, one may, perhaps, do his work very much better than the others, for there appears to be a strong tendency to formality, and it is only the man with an artistic tendency who grasps the idea quickly of reproducing a natural effect. Earlier in the year Crocuses gave evidence of their suitability for clothing conspicuous mounds beneath trees with showy flowers. They are better suited than later-flowering plants for places where the grass must be mown early, for their foliage dies down in May.

In shady places Anemones make a brave show, for in addition to the common Wood Anemone (A. nemorosa) we have the blue A. blanda and A. apennina, the many-coloured A. Hepatica, the taller-growing Pasque-flower (A. Pulsatilla) and several other kinds, all of which provide an attractive display. On moist land the common Lady's Smock, or Cuckoo-flower, commands attention by reason of its delicate white or lilac-tinged flowers, while the Marsh Marigold (Caltha palustris) is glorious with large golden, Buttercup-like blossoms. Glancing at shrubby plants, effective results are obtained by massing Gorse, both single and double flowered, on dry banks or other open land, while the Mediterranean Heath may well be introduced into the landscape. Where such plantations were made a few years ago, the present season finds them

in glorious condition. On the outskirts of woods Cornus Mas is very effective, while it is possible to introduce such subjects as Forsythia suspensa and Berberis stenophylla into certain positions with good results. Towards the end of April the common Broom replaces the Gorse, its golden blossoms being quite as conspicuous. Shady places may be planted with Vinca minor and V. major, and occasionally these plants are found in a state of Nature associated with the Lily of the Valley. It is not often that Daphne Mezereum is found, either wild or naturalised, but the Spurge Laurel (D. Laureola) is frequently seen in chalky districts. Though its flowers are not showy, they are deliciously fragrant, which makes their presence perceptible from a considerable distance. Space will not allow of attention being directed to more of the many plants of herbaceous or shrubby habit which are conspicuous at the present time; but intending planters should be ever watchful for effects worthy of reproduction. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 23.—Royal Horticultural Society's Spring Show at the Temple Gardens (three days). Gardeners' Royal Benevolent Institution's Annual Festival Dinner in the Grocers' Hall, Prince's Street, London. Devon Counties Show at Newton Abbot (three days).

May 24.—National Tulip Society's Show, Temple Gardens. Linnean Society's Annual Meeting. Kew Guild Dinner at the Tavistock Hotel at 7 p.m.

Gardeners' Royal Benevolent Institution.—We are asked to remind readers that the annual festival dinner of the above institution will be held at the Grocers' Hall, Prince's Street, City, at 7.30 p.m. on the 23rd inst. Sir Marcus Samuel, Bart., will preside.

The first Rose of summer. — It may be of interest to other readers to know that our first outdoor Rose was cut on Sunday, the 14th inst. This was the old but fragrant Gloire de Dijon growing against a south wall in an Essex garden. By the time this is published several more flowers will be fully open.—H.

Nursery exhibits at the Festival of Empire.—Messrs. Clay and Sons of Stratford have presented to the Festival of Empire at the Crystal Palace a challenge cup, to be awarded to the premier horticultural display put up by any firm in the exhibition grounds. The following firms have already arranged exhibits: Messrs. J. Cheal and Sons, Toogood and Sons, The King's Acre Nurseries and The Harrow Nursery Company. Full particulars concerning the horticultural section of the festival can be obtained from Mr. T. G. W. Henslow, Crystal Palace, London, S.E.

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Royal Horticultural Hall, Westminster, on Monday evening, May 8. Mr. Charles H. Curtis presided. Three new members were elected, making a total of thirty-nine this year so far. A lapsed member, having reached sixty years of age, withdrew the sum of £11 11s. 8d. standing to his credit. Several members over sixty drew the interest on their account as per Rule 18. The amount paid for sickness since the last meeting was £51 15s. The secretary will be pleased to send a few copies of the report for 1910 to any member wishing to distribute them.

Edinburgh autumn show.—Intimation has been made of the postponement of the dates of the autumn show of the Royal Caledonian Horticultural Society in the Waverley Market, Edinburgh. It was to have been held on September 6 and 7, but the council has decided to postpone it until September 13 and 14. The entries close on September 6. The railway arrangements for September 12, 13, 14 and 15 will be the same as those made for the dates announced before. Intending exhibitors and others will be glad to know of the change, which is likely to be more suitable for many in the North.

The River Thames flower show.—Arrangements have been made to hold a flower show and fête upon Tagg's Island, Hampton Court, on Wednesday and Thursday, June 7 and 8. It should be noted that no flower show has ever been held upon an island in the Thames, a fact which renders the present fixture of an entirely unique character. The island is most accessible, both by railway and tram, from all parts of London, while there is a large local population much interested in the idea. The show will be opened by H.R.H. the Duchess of Albany, and the proceeds will be in aid of the funds of the League of Mercy, supporting all the hospitals.

Site of the Natural History Museum. At a meeting of the Council of the Royal Horticultural Society, the following resolution was carried unanimously and ordered to be forwarded to the Prime Minister: "The Council of the Royal Horticultural Society beg to record their great regret that it should be proposed to encroach on the entirety of the site which was secured to the Natural History Museum by the delimitation of its northern boundary by the Treasury and the Office of Works in 1899, which site they regard as being of vital importance to the efficiency of the museum." Given under the common seal of the Royal Horticultural Society. — W. WILKS, *Secretary*.

East Anglian Horticultural Club.—There was a good gathering at the May meeting of this club, held at the Boar's Head Hotel, Norwich. Mr. F. W. E. Shrivell gave a most interesting discourse upon the uses of chemical manures in the garden. He remarked that for seventeen years the experiments at Goldens Green, Kent, had been carefully noted, and it was proved that in most cases chemicals, plus a small quantity of organic manure, was best. The address was followed by a good discussion. The exhibits greatly brightened up the room, special mention being due to Messrs. Daniels Brothers, Limited, Norwich, for pots of Liliums and Azaleas; Mr. W. Laws, gardener to G. E. White, Esq., for his group of Marmion Carnation; and to Mr. W. Shoesmith, gardener to F. W. Harmer, Esq., for a nice piece of Cypripedium barbatum.

American Gooseberry mildew in Cambridgeshire.—The Board of Agriculture and Fisheries have received information that the summer stage of American Gooseberry mildew (Sphærotheca Mors uvæ) was discovered in two Cambridgeshire gardens on the 8th inst. All Gooseberry growers are advised to examine their bushes carefully, and should any sign of disease be found, to spray their bushes with a solution of liver of sulphur (1lb. to 32 gallons of water). A leaflet describing the disease and giving directions for dealing with it can be obtained from the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W., gratis and post free. Letters so addressed need not be stamped.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.).

Roses injured by ironwork. – Doubtless most readers of THE GARDEN have experienced much annoyance by the injury caused to the growths of Roses upon arches and other supports of iron during severe winters. I have had very promising growths quite ruined by their contact with the iron. There is a very simple remedy which I have found effectual, and that is to place Bamboo canes between the growth of the Roses and the iron. This can readily be done if the plants are released and, after securing the canes to the iron, the growths again replaced. Dark-coloured Bamboo canes are procurable, and are very suitable for the purpose, as they are not at all conspicuous. I would also caution readers regarding the use of copper wire for labels, for this has the same disastrous effect upon the growths. I consider the aluminium wire or tarred twine much superior. While on this subject I would point out a common danger, and that is twisting the wire of the label tightly on to the growth. It should be quite loose.—P.

Royal Gardeners' Orphan Fund. – Very pathetic interest attaches to the list of names of those who formed the provisional committee which really created the now very popular Royal Gardeners' Orphan Fund, as out of the number, I believe, twelve have passed away. However, that committee was formed twenty-four years ago, and many things have happened in that time. But it is perhaps now little known, except to some elderly persons, that it was originally proposed to create, not an orphan fund, but an orphanage. Had that proposal been adopted, a very heavy burden would have been saddled on the gardening community, and the fund could never have assisted one-fourth the orphans that it now does. With others I fought against that proposal, and, happily, it was dropped. It exhibits, in connection with both our splendid gardening charities, great forethought that no such costly burdens as homes, asylums or orphanages exist. With the exception of certain management expenses which are indispensable, and in the cases of both charities well employed, all the moneys collected go direct to the aged or to the orphan recipients. Would that many other similar charities had been as wisely constituted!—D.

Horticultural experiments. — The remarks of "A. D.," which appear on page 211, are very much to the point, and I agree with all that is there advanced in respect to trials that are conducted in the interests of seedsmen, professional gardeners, amateurs and cottagers. If the seedsman or nurseryman benefits, others are bound to afterwards. It has often occurred to me that our hybridisers might direct their efforts very seriously to the raising of late-flowering Apples, Pears and Plums. Perhaps some have already done so; but it seems to me that everyone strives after possessing that which shall be a little earlier than anything now in cultivation. It was heart-breaking to see the blossom of Pears, some early Apples and Plums frozen hard and beaten to and fro in a snowstorm on April 5. For many years I had two trees of Court Pendu Plât Apple. The blooms rarely opened until all danger of severe frosts was past, and, although earlier-flowering sorts were often ruined, this one never was. We certainly require in this country more late-flowering varieties of the three kinds of fruits named, and every encouragement should be given to pioneers in this direction.—GEORGE GARNER.

Rose Climbing Devoniensis.—The instructive and exhaustive notes by your correspondent "A. P." on page 200 regarding Rose Maréchal Niel cannot fail to quicken the interest of amateurs in this capricious yet exceedingly beautiful Rose. Its liability to canker presents a real difficulty to those having a limited experience in Rose culture under glass, and to such the merits of the old Rose Climbing Devoniensis are worthy of attention. It is not, however, a yellow Rose, the flowers being white, with a flesh-tinted centre, and perfectly double. The growth is extremely vigorous, and its free-flowering qualities leave nothing to be desired. The cultural instructions as set out by our correspondent in the case of Rose Maréchal Niel apply in every detail and with equally satisfactory results to Rose Climbing Devoniensis.—THOMAS SMITH.

Flowering trees in forecourts.— In theory it is very desirable to plant flowering trees in street forecourts, as suggested by your correspondent "A. C. M.," page 211. As one, however, who has tried the experiment in London and found out its drawbacks, I should advise anyone to think twice before they planted flowering trees in the forecourts of the great city or its immediate suburbs. My experience is that, as soon as the earliest blossoms commence to open, gangs of juveniles of both sexes make a raid on them, climbing over and breaking down fences and absolutely stripping the trees. Any attempt to guard one's trees is quite useless, for, sooner or later, it will be necessary to relax the vigilance, and then the mischief is quickly done. It is futile, too, to take any action in the matter, as there is practically no means of punishing the authors of the mischief, or magistrates look with a lenient eye on such things. Should one of the depredators be caught, the usual excuse is that the flowers were to be taken to school for the teacher. With regard to the beauty of flowering trees and shrubs in street forecourts, there can be no question; but in order to enjoy them it will, in many instances, be necessary to wait till children are taught to discriminate between their own property and that of others.

Certificated plants at the Royal Horticultural Society. — Naturally, the plants which have at the meetings of the Royal Horticultural Society been given either first-class certificates or awards of merit are of especial interest to many visitors; yet it is often very difficult to find some of them. In the case of the floral committee, all new plants placed before that body are taken to the committee-room upstairs, where the awards are made. Then, as soon as the committee rises, the plants are for the most part fetched by their respective owners and scattered over the hall, sometimes being placed in very out-of-the-way spots. This is most inconvenient, and frequently leads to some of the most interesting subjects being overlooked. A case in point occurred to me at the meeting on April 25, for I could not find Sir J. T. D. Llewelyn's hybrid rhododendron, yet I looked in all directions for it.

Surely it would be no great hardship to anyone if a space was set aside for certificated plants. I am fully aware of a drawback, from an exhibitor's point of view, at all events, when the exhibitor has a group in the hall, as he is anxious to incorporate the plant, or plants, with his own group, and in this way possibly do more business. If it is not practicable to place all plants that have received certificates or awards in one spot, it would surely not be difficult to make a list of these as soon as possible after the committees have finished and place it in a conspicuous part of the hall. The names of the exhibitors would then be a great help towards finding the plants.—H. P.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

FIG TREES IN POTS.—When the first crop of fruits has been gathered, give the trees a thorough washing with an insecticide. If these trees are required for forcing early next year, it is not advisable to tax them with a second crop of fruit. Stop shoots which are growing freely, and cut away all superfluous branches to allow the sunshine and air to penetrate through the trees, in order that the wood may be well ripened. The trees must eventually be placed outdoors in a sunny position when the weather is favourable.

Fig Trees in Borders.—Trees on which the crops are approaching maturity must not suffer for the want of moisture. Shallow borders which are full of roots will be the better if given a good surface dressing with well-seasoned manure. Give abundance of air during mild, genial weather, and leave a little on the top of the house all through the night. Guard against overheating the hot-water pipes. Very little artificial heat is needed at this time of the year, unless it is desired to hasten the crop to ripen. Even then it must not be given to excess.

Peach and Nectarine Trees in Pots.—When the fruits on the early trees commence to ripen, abundance of air must be admitted and the house kept dry. Manures must be discontinued and less clear water given to the roots than hitherto. When the fruits have all been gathered, the trees must be kept in a cool house for a week or two preparatory to placing them outdoors in a sunny position.

Early Peaches in Borders.—The fruits which are swelling must be raised up, so that they are fully exposed to the sun. When they are approaching the ripening stage, it is a good plan to thoroughly soak the borders with diluted liquid manure. No water should be given when the fruits are ripening, or the flavour will be impaired. Some varieties are subject to scalding when they are ripening; therefore a thin shading must be put over the roof to prevent this.

Early Grapes.—During warm, genial weather Grapes which are ripening need plenty of air; therefore both top and bottom ventilators must be opened whenever outside conditions will allow. Should it be necessary to apply more water to the roots, give them a moderate watering with clear water.

Midseason Grapes.—The bunches should again be examined, and should it be necessary to thin out any more berries, this must be done very carefully to avoid rubbing. All lateral growth must now be regularly removed, provided there is a good covering of foliage all over the house. Should red spider appear on the leaves, sponge them with a weak mixture of soft soap and sulphur in water. Some districts are more subject to attacks of this pest than others Where this is so, it is a good practice to syringe the foliage at closing-time with tepid rain-water. This, of course, must be discontinued when the berries are colouring When the berries have stoned, give the borders a good surface dressing of rich farmyard manure, and thoroughly wash this in with tepid water.

Grape Madresfield Court.—Difficulty is sometimes experienced with this excellent Grape in regard to splitting of the berries when they are colouring. Much care is needed during this stage in ventilating the house during changeable weather.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

GREENHOUSE.

SEEDLINGS of Primulas and Cinerarias should be potted off as soon as they are ready to handle, using soil of a light nature composed chiefly of leaf-mould and sand. The young plants can be grown on in a brisk heat for a time, afterwards removing them to a cool house before repotting into their flowering pots.

Primula obconica.—Where home seed is desired, the best varieties should be stood in cold frames, when a fine crop can usually be secured. Special varieties may be kept for potting on, or divided into small pieces to increase the stock, but seedlings give the best results. The double white variety of P. sinensis should be propagated from cuttings annually. Cuttings should be placed in small pots filled with a light, sandy compost. A warm temperature is necessary, but only partial shade should be given; and a close atmosphere such as is provided in a propagating-frame should be avoided, as this plant is very liable to damp off. We have found the conditions in a Melon-house to suit this plant admirably. When rooted and established in flowering pots they may be given the same summer treatment as recommended for the former varieties, but must be moved to winter quarters earlier. Flower-spikes should be picked out as soon as they appear, to induce vigorous growth in the plants.

Tuberous Begonias for the greenhouse display should now be in their flowering pots. These, as advised some time ago, should be potted very loosely with lumpy soil. The plants may soon be moved to cold frames until they show their first flowers. Remove the sashes during the night when all danger of frost is past. Evening dews seem to impart a special luxuriance to the Begonia.

Tuberoses for autumn flowering should also be moved to cold frames and kept there until their flower-spikes are well advanced. Keep the side growths rubbed out as soon as they appear, and so direct all the energy of the bulb to the main shoot. It is not advisable to keep the bulbs long out of the soil after they arrive, as they are apt to shrivel. It is better to pot them all up at once and keep the soil dry, retarding or hastening their growth according to requirements.

Hydrangeas.—The varieties of hortensis that have not shown flower freely should be well exposed to light and air, when they will provide excellent cuttings for producing large single heads of flower next season. They may also be propagated in autumn after they have set their flower-buds; but these do not produce such large heads. The cuttings placed singly in small pots should be kept close and well shaded until rooted. The deep blue colour so much wanted in Hydrangeas seems to be a matter of cultivation rather than of variety. The treatment to obtain the desired object seems to remain a mystery to many growers, and yet the mode of cultivation does not in all cases affect the colouring, as instanced by the behaviour of some old plants under my charge. In 1908 every plant was more or less blue, some having intense shades, which were very much admired and coveted. In 1909 every plant, without exception, was pink, and in 1910 all were again blue, but slightly less brilliant than in 1908. No repotting had been done during that time. The conditions were exactly the same in regard to the water supply and the position of the plants, proving that no mysterious chemical was responsible for the remarkable change of colour in the flowers.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

TOMATOES IN POTS.—Plants which are to fruit in pots will be making excellent progress, and should have incessant attention to keep them constantly on the move. Immediately there are indications of stem roots, top-dressing must commence; and while the material used need not be particularly rich, it should be good, as with the moisture and genial atmosphere of the house, growth will be rapid and unfailing supplies of food are required. See to it that all the shoots which form in the axils of the leaves are promptly rubbed out; if they are permitted to extend they will simply deprive the main stem of sustenance, to its permanent injury. If the little task is put in hand before midday, it will be found that the shoots will push out quite easily with the point of a label or a stick; but later they harden somewhat, and will have to be pinched or cut for complete removal. Keep plants intended for cropping out of doors in steady progress, and directly they have filled the 3-inch pots with roots, put them into those 6 inches in diameter, watering with great care subsequently.

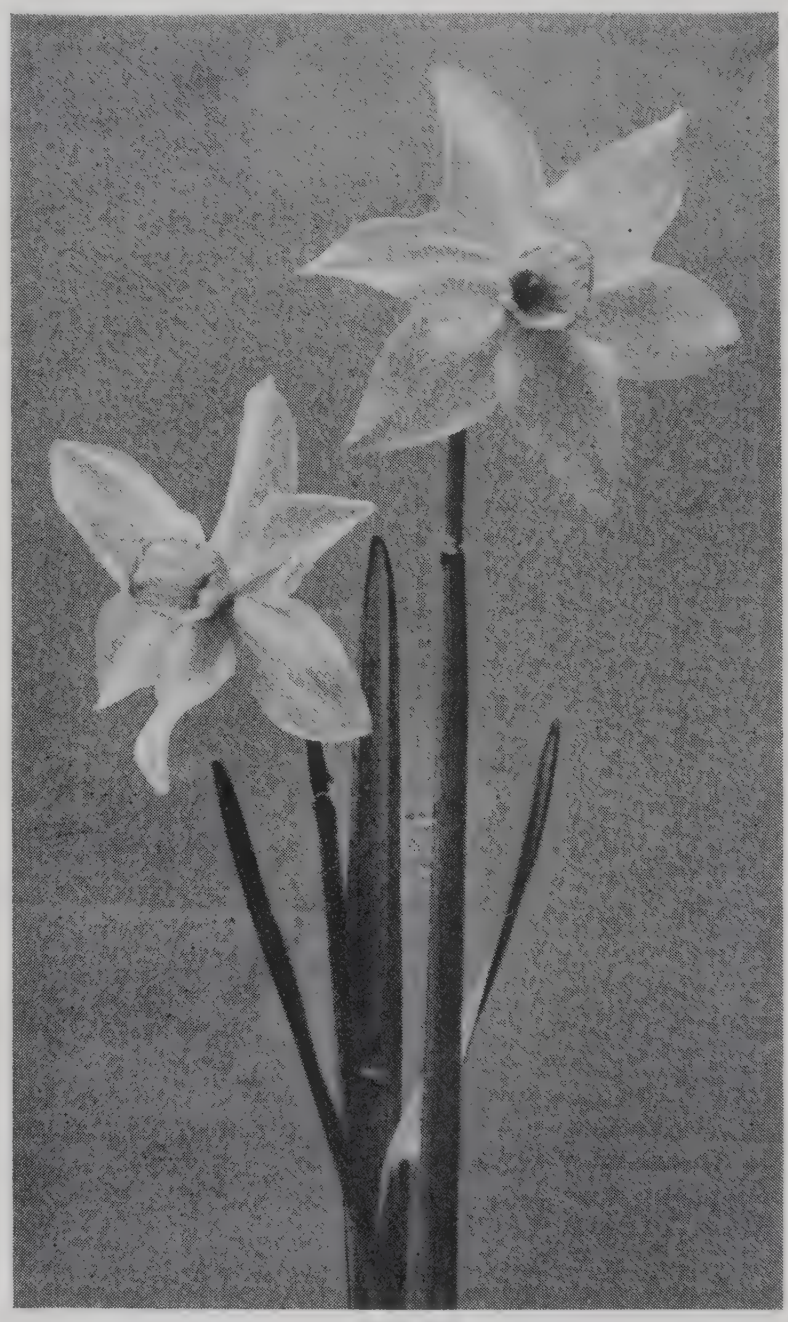
THINNING CARROTS.—This operation will be in hand at intervals for some time, and it is adverted to now to remind readers of the importance of firming the soil up to the plants which are to develop after the superfluous ones have been removed. The object of this is to circumvent the Carrot fly, which does such immense injury in some districts every season. If the seeds were dropped as suggested in an earlier issue, the task of thinning will not be heavy; but, even then, although so few plants have to be turned out, the soil should be refirmed, because it is the tender part of the skin which has previously been covered in with soil that the fly pierces with the object of depositing its eggs. If this simple expedient is strictly observed, the losses from this pest will be absolutely insignificant in any season.

PLANTING CELERY.—The Celery will have to be planted in successive batches, and it is practically certain that there will now be plenty of sturdy plants ready for their permanent positions in the trenches. A point of great importance is to see that there is not a single sucker on the young plants as these divert the nutriment taken up by the roots to themselves, instead of allowing them to pass into the handsome stalks. It is imperative, too, when planting is in hand, that care shall be taken to put in the trench some excellent soil for the roots to rest upon. Many inexperienced cultivators cut out and manure the trenches correctly, and then make the fatal mistake of placing in some of the poor subsoil previously removed. This must never be done, and if new material is not at command, let some of the sweet top soil be pulled down on to the manure. Frequently dust the plants with a mixture of soot and wood-ashes, or the latter alone, as a deterrent of the leaf-miner. At the same time as this is done, the plants should be given a little stimulating food, which they will much appreciate.

HOEING POTATOES.—Immediately the plants can be clearly seen in the lines, run the hoe down to open up the soil and, as soon as possible afterwards, draw mould up to the tops. The loosening of the soil in this manner favours progress by admitting warm air to the roots, while the earthing-up protects the plants from a night frost.

LATE PEAS.—The earliest Peas are coming along splendidly, and there is every promise of excellent crops; but in our admiration of the progress that has been made by these, we must not forget the necessity for late sowings to maintain the supply. There are now many excellent varieties suitable for this purpose, and all growers have their particular favourites; but among standard sorts it will not be easy to find the superiors of Autocrat and Gladstone, the latter, however, appearing to flourish better in the Northern than in the Southern Counties. Bear in mind that it is impossible to cultivate the soil too deeply, and that Peas have a decided partiality for abundant supplies of good food. Provide these things and success is assured.

OUTDOOR TOMATOES.—These should be had in readiness for planting out about the end of the month or early in June. Walls facing south or borders sheltered from the north and east winds are suitable sites to select for this purpose. If the soil is of a tenacious character it will be improved by the addition of lime rubble before planting. H. J.



THE NEW LEEDSII NARCISSUS MISS MAUD WEST.

(*See page* 238.)

THE FRUIT GARDEN.

STRAWBERRIES AND HOW TO GROW THEM.

(*Continued from page* 230.)

THE actual planting is an important operation, much more so than is usually recognised. More failures are due to indiscreet planting than any other cause, it being an easy matter to plant a little too deeply or not quite deep enough, both errors being prolific sources of failure. Previous to the plants being put in, the soil should have had ample time to settle, and if at all sandy should be well trodden down, as Strawberries delight in a firm rooting medium. The soil must also be made firm around the roots, and if the soil is dry it well repays the grower to water the plants freely until well established.

The distance apart to plant will depend largely upon the method of culture to be adopted. During recent years some of our best growers have grown Strawberries as biennials, *i.e.*, the young plants are planted one summer, allowed to fruit the next, and are then destroyed, a new bed being prepared each year. By so doing larger and somewhat earlier fruits are secured. When this system is adopted, the rows may be 18 inches apart and the plants in the rows 15 inches asunder. The more general practice, however, is to allow the beds to remain for three years, and then the rows ought to be 2 feet 6 inches apart and the plants 18 inches or more asunder.

When established, all runners, except any required for propagating purposes, must be cut off as soon as they appear, so as to concentrate the energy of the plants to the production of fruit. The question of manuring the beds is an important and debatable one, some growers advising autumn manuring and others spring. I have tried both, and have come to the conclusion that early March is the best. At that time a 6-inch-thick layer of rather long, partially-decayed manure should be neatly spread between the rows. The plants are just beginning to get active, and as the nutriment is washed down into the soil the roots are in a fit condition to make use of it. By the time the fruits are swelling freely, the straw will have been washed clean and will prevent the ripening fruits being splashed with soil. If necessary, more clean straw may be added, but avoid the natural temptation to use the grass from the lawn for the purpose. If the weather is at all wet, it will cause the fruits that rest upon it to quickly decay. Just when the berries have set it pays to give each plant about half a teaspoonful of finely-crushed nitrate of soda or sulphate of ammonia, scattering it round the crowns and underneath the foliage. It assists the fruit to swell and brings out the colour.

The autumn-fruiting Strawberries, represented by such varieties as St. Antoine de Padoue and St. Joseph, ought to be grown much more extensively than they are at present. Their treatment is practically the same as that advised for the summer-fruiting varieties, except that all flowers should be removed until about the middle of July, so as to induce the plants to flower and fruit freely during the autumn months. In addition

to the two varieties previously mentioned, there is now an excellent new autumn Strawberry named Laxton's Perpetual. The list of summer-fruiting varieties is a large one, but for general purposes Royal Sovereign has not yet been beaten. For flavour British Queen has long held premier place, but it does not thrive in many gardens, and on that account is not recommended for amateurs. A new variety of similar flavour and much better cropping qualities is Epicure. Sir Joseph Paxton, President, The Laxton, Cropper, The Bedford, George Monro and Connoisseur are other good sorts that may be recommended for general purposes. The four last named are comparatively new. A small-fruited, free-cropping Strawberry of exquisite flavour is Vicomtesse Héricart de Thury, a variety that customers who know it would always pay an extra penny per pound for. As a late variety I know of none better than Givon's Late Prolific. J. C.

THE ROSE GARDEN.

RAMBLER ROSES AS POT PLANTS.

THE ever-increasing demand for well-flowered specimens of Rambler Roses in pots is a sign of popular favour, and the innumerable methods in which the floral artist can utilise them will ever render them indispensable for decorative work. Being Coronation year, naturally a great impetus has been given to this branch of the florist's trade, because they can practically be had in bloom at any given period, and there can be no doubt but that our national flower will enter largely into the Coronation decorations, albeit most of them will have to come from plants grown under glass. What can possibly be more graceful than a well-flowered pillar plant of Hiawatha, Tausendschön or Dorothy Perkins? And half-a-dozen of such plants will go a long way in a room wherever located.

With the advent of the more pliable growers, such as the wichuraiana Roses, the commercial florist has not been slow to train these Roses in all manner of forms and devices, such as weeping standards, in fancy baskets, as hanging baskets, and even in the form of a crown and coat-of-arms.

In addition to various rambler forms we may have the little Dwarf Polyanthas with which to edge them. I was glad to hear that Mrs. W. H. Cutbush well maintained its supremity as the best pot plant, although I can conceive it possible that this Rose will have to give place to Orleans Rose in the near future. All who grow these delightful little Roses should work up a big stock of Jessie. It is certainly the most brilliant variety at present raised, and will be a delightful little plant for table decoration if grown in 3-inch pots, for it blooms freely even in such diminutive pots. A word of caution may be necessary to all who purchase these Rambler Roses in bloom: Do not allow the plants to get dry. I have seen plants ruined in a few hours by neglect of watering. Placed as they are in rooms that are very drying, it is essential that they should be well soaked with water a few hours before. I would also advise anyone who desires to keep the plants in such positions for a day or two to remove them to a cool cellar, if possible, for such time as they are not required to be on view; but where this cannot be done, cover the surface of the pot with moss and apply water liberally. Possibly numbers of these plants find their way to the refuse-heap; but really they could be utilised in the garden when off bloom, and would fill up any vacant position on an arch or pergola, or, if desired, they could be cut back and placed in heat, where, by applying plenty of moisture, new growths would be produced and good plants secured for next season's flowering. It is very essential that these ramblers should have their growths well matured, and to do this they need a good ripening off during August and September by placing the plants outdoors, preferably in front of a greenhouse, or, if not possible, standing them in single rows and tying the growths to wires.

Commercial florists do not "go in" for a large variety of sorts. The main kinds grown are Dorothy Perkins, White Dorothy, Mrs. Flight, Hiawatha, Delight (which is freer-blooming than Hiawatha), Coquina, Sweetheart, Philadelphia Rambler, Lady Gay, Queen Alexandra, Crimson Rambler, American Pillar, Veilchenbleau (the Blue Rambler), Blush Rambler and Tausendschön. Excelsa will be largely grown as a double crimson form of Dorothy Perkins, but at present there are no large plants available. The fine new white which the raiser of Hiawatha, Excelsa, Lady Gay, Coquina, &c., is sending out this year, and which he has named Mrs. M. H. Walsh, should be a real acquisition, and it has already created almost a sensation in America. Then a climbing Mrs. W. H. Cutbush has been announced, which also, by reason of its perpetual-flowering quality, will be a real gain.

THE BLUE RAMBLER ROSE.

WHEN well grown this novelty is really very beautiful, and although perhaps it will not blend well with other Roses, I am told it is very effective with blue Hydrangeas. The blooms are produced in glorious trusses, which are well displayed on the plant, and as the flowers possess the enduring quality of Crimson Rambler, from which it was a seedling, its value will be understood. Doubtless the raiser, Herr Schmidt of Erfurt, will have lost no time in hybridising this novelty, so that we may confidently look forward to other good things from the same source. Coronation groups are possible by the aid of this new rambler, and although it does not possess the true blue desired, yet it will answer a very useful purpose. A good crimson or red would be the old Crimson Rambler, Philadelphia Rambler or Hiawatha. Philadelphia Rambler is a wonderful bit of colour, and, strangely, unlike most of the multifloras, it blooms best on the two year old wood. The best whites of to-day are White Dorothy or Sweetheart. When we obtain the grand new white Mrs. M. H. Walsh we shall find it of untold value, for a good showy pure white is very much needed, although White Dorothy may be produced nearly pure white by a little management. P.



THE GOLD MEDAL GROUP OF RAMBLER ROSES IN POTS SHOWN BY MESSRS. T. ROCHFORD AND SONS AT VINCENT SQUARE ON THE 9TH INST.

THE FLOWER GARDEN.

PLANTING VIOLAS OR TUFTED PANSIES.

THE spring planting of Violas or Tufted Pansies was completed in many gardens some time since, but this should not deter those who desire to grow these flowers, as the necessary plants may be obtained and put in their permanent quarters at once, with successful results. Many admirers of the present race of Violas prefer to plant in the autumn, and this may be done most successfully where the garden soil is light and friable. On heavy soils many good varieties are lost annually, and for this reason many growers prefer to plant their Violas in the spring. Autumn planting in suitable soil ensures an early display of blossoms in the succeeding spring.

In gardens where spring planting is observed, there is a tendency with growers to commence planting operations too early. So soon as a few fairly bright days are experienced in the latter part of February, indiscreet growers begin planting, and when the plants have been reared in cold frames and have not been properly hardened off, tender young specimens are acquired, and suffer severely from frosts and cutting easterly winds. It used to be the practice to plant the Viola in mid-March, when the weather was satisfactory and the prospects bright; but, after many years'

experience, I am more disposed to believe that the young plants are better served by allowing them to remain in the cold frame until the really settled weather of late April arrives, for at that season the young plants are in ideal condition for lifting and transplanting. Roots have developed in a wonderful manner of late. The young plants mostly lift with a mass of roots adhering, and in this condition they invariably go ahead at once. The writer would be disposed to pay a slightly higher price for his plants if the specialist would agree to send out plants with more of the soil and roots adhering. It is money well spent, and they are usually most satisfactory. Plants treated in this way suffer very little check in the lifting and transplanting process, and at this later period of the spring the plants are sturdy and vigorous.

The chief concern of the grower, apart from the acquisition of the plants, is the preparation of the flowering quarters. Violas pay for deep working of the soil. In their long, continuous display the roots are persistently drawing on the resources of the soil, and for this reason beds and borders that have been deeply dug and heavily manured have an advantage over others less deeply dug and indifferently prepared. An open, friable soil of a rich character suits these plants admirably, and those who can get their quarters into this condition cannot very well fail to achieve success.

The best effects are obtained by planting in masses of one colour or of one variety. The Viola is admirably adapted for edgings to large beds and borders, where the plants make a most effective display. In the hardy border they are seen to advantage when planted in groups or small colonies of one sort. In small gardens three to six plants arranged in irregular groups are distinctly pretty, and in large gardens, where borders of a bold, comprehensive character are the rule, groups of two dozen plants in each are not by any means too large. They make a welcome piece of colouring here and there right throughout the front of borders of this description, and are bright and interesting for several months; in fact, there is no other flowering subject that flowers for so long and so continuously. A mistake is often made in planting too closely. Nine inches is a good space to observe between the plants, and they will fill up the intervening spaces long before the flowering season is over. For quick results 6 inches between the plants will answer very well. Exhibition plants are grown far more satisfactorily when planted 1 foot to 15 inches asunder; they can be dealt with so much better when treated in this way.

Plant firmly, using a quantity of fine gritty soil to place about the roots at the time of planting. Finish off neatly and water in subsequently, using water from a fine-rosed can. A dozen good bedding sorts are the following: Swan, white, large yellow eye; Charles Jordan, bluish mauve self, slightly rayed; Bessie, blush self, profuse bloomer, rayless; Maggie Mott, mauve blue self, rayless, exceedingly free-flowering; Royal Purple, royal purple, neat yellow eye, effective and free-flowering; Miss E. M. Cann, rich yellow, rayless in warm weather; Cottage Maid, purple and lavender, blotched white, a good fancy flower; White Empress (syn. Blanche), large creamy white self, rayless; Mauve Queen, large mauve self, free and vigorous; Nellie Harston, grey blue, white centre, very distinct and pretty; Acme, purplish crimson, striking yellow eye, free and distinct; and Duchess of Fife, primrose and white, distinctly edged with blue, beautiful habit.

Twelve exhibition varieties are represented by the following: Mary Burnie, creamy white or primrose, edged dark heliotrope, very large; Lingi, an extremely large pale yellow self, rayless in warm weather; J. H. Watson, reddish purple, striped magenta and white, large and attractive; Maggie Currie, rosy ground, striped and marbled purple, upper petals lighter, splendid; Mrs. Chichester, marbled purple on white ground, very large; Wm. Lockwood, an immense rayless yellow self of grand quality; Admiral of the Blues, deep blue rayless self of fine quality; Iliffe, a rayless cream flower, tinged heliotrope on upper petals, very fine, ideal form; James C. Erskine, fawn ground, shaded crimson and purple, yellow and gold, neat eye; Charles B. Murray, glossy crimson ground, striped deep pink and rose, large, smooth, well-formed flower; G. C. Murray, smooth, black bottom and side petals, blue top petals, large flower of fine substance; and Jenny Houston, immense rosy purple self, rather darker round the eye.

Highgate, N. D. B. CRANE.



FLOWER BORDERS IN THE GARDENS AT SKELTON CASTLE, YORKSHIRE.

NARCISSUS MISS MAUD WEST.

THE illustration on page 236 represents a new Leedsii Narcissus which the raiser, Mr. W. Baylor Hartland of Ardcairn, Cork, has named after Miss Maud West, the lady who makes most of the coloured drawings from which our coloured plates are prepared. This Narcissus is a very beautiful variety, and doubtless has a good future in store. Mr. Hartland, in sending us flowers, writes: "I have pleasure in submitting for your inspection my newest and best seedling Leedsii Daffodil, which I have named after your talented artist, Miss Maud West. The measurements which I have made of the largest flower I have had of this variety this year are: Stem, 28 inches; perianth, 4¼ inches; cup, seven-eighths of an inch long and seven-eighths of an inch wide at the mouth; the perianth segments white, nicely overlapping; cup pale sulphur yellow, changing to pure white."

FLOWER-BORDERS AT SKELTON CASTLE.

THE accompanying illustration represents a flower-bordered walk in the garden at Skelton Castle, Cleveland, York, the seat of W. H. A. Wharton, Esq. The gardens have been very greatly improved during recent years by the head-gardener, Mr. J. R. Batty, who, in addition to planting the borders shown, planned a most interesting Rose garden by the old moat. The castle itself is mostly modern, but the large moat and well-laid-out gardens add greatly to the beauty of the place. F. M. S.

THE GREENHOUSE.

PRIMULAS IN THE GREENHOUSE.

IT is questionable if any class of greenhouse plants has received such additions within the last generation as the Primula, for not only has Primula sinensis and P. obconica been improved almost out of knowledge, but a great number of new species have been introduced within that time. Taking first the case of the old Primula sinensis, represented at one time by what may be regarded as the florists' forms, with plain leafage, we have now innumerable varieties showing a wide range of colour, form and habit, while the foliage is almost as variable as the flowers. As individual opinions differ, the ordinary forms are by some looked upon as lumpy in character, while, on the other hand, they are by some preferred to the members of the stellata section. The two, however, are so dissimilar from each other that, where the greenhouse has to be kept gay with flowering subjects, a place may well be found for the members of both sections.

A feature that strikes one whose memory goes ck for many years is the great improvement in our to be found among present-day varieties d, owing to a greater care in isolating plants ended for seed, the way in which the different ms come true. Many rich-coloured varieties e now to be found among the garden Primulas, ile equally pleasing are some of the subtle shades pink. Flowers with a bluish tinge are more tractive than they were, while the pure white es are always admired. Varieties with semi-uble blossoms are now readily obtained from ed, and are by some preferred the single kinds.

This brings one to a section at has totally disappeared from any gardens, and is nowhere own to any great extent. I ude to the old double white, hich can only be increased by ttings or layers. Forty years o I spent a period in one of e then large market nurseries, d a considerable area of glass s given up to the culture of is Primula for the supply of t flowers. As we began picking the autumn, the season ended the end of March or early in pril, when the plants were all ne over and cleaned, every wer-spike being cut off. The use was then kept somewhat ose and moist, the effect being at young roots were pushed t freely from the old, hard ems. The plants were then cut and potted singly into small ts. Kept close for a time, ey soon rooted and grew away ely afterwards.

One group of these Primulas, hich in the late seventies tracted a very large share of tention, has, I believe, totally sappeared. I allude to some rieties raised by the late Mr. chard Gilbert of Burghley, whose ain characteristics were their tensely double character and othed or fringed edges to the tals. They were greatly admired, it proved to be somewhat diffi-lt to grow well.

Primula obconica is another ecies that has advanced with aps and bounds, for a generation nce it had not long been intro-uced, and was then only repre-nted by a poor lilac-tinted form. ow the range of colour varies om pure white to deep car-ine, through numerous inter-ediate shades. What is more, e shape of the flower and habit the plant have improved to corresponding degree. As far as I know, imula obconica has not hybridised with any her species.

That accidental hybrid which made its appear-ce at Kew, and now known as Primula kewensis, s proved to be of great value for greenhouse coration. Apart from the ordinary type, there a form of this with very mealy foliage. Both pposed parents of Primula kewensis, namely, Abyssinian P. verticillata and the Himalayan floribunda, are attractive in the greenhouse, last-named flowering nearly throughout the r. In addition to the above, we have of late years had a great number of species introduced from China, the possibilities of which are at present scarcely understood. One species—Primula malacoides—has, during the last winter and spring, gained hosts of admirers, for it was several times shown in splendid condition at the meetings of the Royal Horticultural Society. The typical P. malacoides has lilac flowers; but there is also a pure white variety. Such Chinese species as Primula cockburniana, P. littoniana, P. bulleyana and others may, from their distinctive characters, apart from their beauty, play an important part in the Primulas of the future. In addition to the species that need the protection of a greenhouse to preserve them during the winter, there are many hardy kinds that develop in a most satisfactory manner with glass protection. The varieties of Primula cortusoides, P. rosea and P. denticulata may be especially named, but many others may be treated in the same way. Nor must we forget the Auricula in its various forms, which is still extensively grown. H. P.

[Primula malacoides has this year been sent to Covent Garden Market in quantity, and has proved a very popular market variety. Ed.]



A SPRING-FLOWERING HEATH (ERICA MEDITERRANEA). (*See page* 240.)

PETUNIAS AS POT PLANTS.

Both double and single flowered Petunias make attractive plants for the greenhouse. Twenty years ago they were extensively cultivated in pots, both for the embellishment of the greenhouse and conservatory and for exhibition purposes. Although the plants are somewhat easy to grow, there is a vast difference between well-grown and badly-grown specimens. The present is a suitable time for a lover of these plants to procure a number in small pots—those 3½ inches in diameter—and grow them on, first in a frame, and then, as they increase in size and commence to form flower-buds freely, in the greenhouse.

Some prefer to grow on seedlings in the flower-pots. When the plants are from a good strain, a very large percentage bear double flowers. Inexperienced cultivators generally transplant and grow on the strongest of the seedlings; but if the objective be double-flowered plants, the weakest, or perhaps more correctly the dwarfest, seedlings should be retained, as they more often bear double flowers, so care in the selection must be the rule. Petunias thrive well in a rather dry soil; that is, those plants do so that are grown in the open borders. Plants in pots need not be given a naturally dry compost, because the bulk, for the sustenance of the roots, is comparatively small, and it is advisable to have such compost of fairly good quality and not too sandy and light. The well-being of the plants will depend, to a great extent, upon the watering and feeding afterwards. If very light soil was used in flower-pots, the watering necessary would be excessive, and then many leaves would quickly assume a bad colour. Fibrous loam, two parts; leaf-soil, one part; rotted manure, one part, with a 3½-inch potful of bone-meal to each bushel of the above, will make a very suitable compost for the repotting of the plants throughout the season. Only add sufficient sand to render the whole compost porous. The young plants must be carefully watched. They should not be allowed to get very pot-bound before they are shifted into larger pots, because any neglect in this matter would cause premature bud formation, and when flower-buds form free growth is arrested. Of course, some buds will show, however careful the cultivator may be; but they must be pinched off until such time as it seems desirable to leave them all on to fully develop. A bushy habit may be secured by frequently pinching off the ends of the shoots—the longest ones. These plants delight in sunshine and dry heat, and flower profusely as a result. Double White and Double Pink, both with fringed edges, are lovely varieties, and when a number of plants of both are grown, the resultant masses of flowers have a charming appearance. There are many colours which may be secured by growing plants raised from a packet of mixed seeds. B.

TREES AND SHRUBS.

THE STAR-FLOWERED MAGNOLIA.

(MAGNOLIA STELLATA.)

ON a sunny day in April or early May there is nothing among hardy shrubs which will light up the landscape with such telling effect as masses of the pure white, star-shaped flowers of Magnolia stellata. It is a deciduous shrub, flowering just before the leaf-buds unfold. Sometimes it is grown as a wall plant, but is seen to advantage when allowed to grow naturally and form a dwarf shrub. This species has the distinction of being the earliest of the Magnolias to flower. It has been in cultivation for many years, and is sometimes known under its old name, M. halleana. The head-quarters of the Magnolia family are in China and Japan, the one under notice being a native of Japan. There is also a variety of M. stellata with blush-coloured flowers. It was sent from Japan by Mr. Maries, and, like the type, is a dwarf-growing deciduous shrub.



MAGNOLIA STELLATA, A DWARF-GROWING SHRUB THAT FLOWERS IN SPRING.

Considering the merits of Magnolias in general, it is at first a matter for surprise that these lovely trees and shrubs are not more extensively grown. One reason to account for this is owing to the dislike which Magnolias have for certain soils and situations. They succeed best in warm positions on loamy soils of an open and porous nature. In the cultivation of Magnolias it must be borne in mind that they resent disturbance at the root more than any other class of plants; consequently, it is never advisable to remove a plant after it has become established. However, transplanting is sometimes a necessary evil, and under such circumstances the best season is in the spring just when growth commences. If transplanting is done in the autumn, the roots, which are very easily bruised, are inclined to rot away, and the plant receives such a severe check that it may never recover. After planting the trees require most careful attention; they should be sheltered under mats, and well syringed if the weather is warm and dry. Magnolias will sometimes ripen their seeds, and if it is desired to raise plants from these sowing should take place at the time of gathering, for no seeds seem to lose their vitality so soon.

THE MEDITERRANEAN HEATH.

(ERICA MEDITERRANEA.)

Too much praise can scarcely be lavished upon the beautiful spring-flowering Heaths, this species being one of the best of the taller-growing kinds. Being a native of the South-West of France and Spain, it is not advisable to plant the Mediterranean Heath extensively in the colder parts of the country, but south of London and in the milder parts of the country it is rarely seriously injured by frosts. In the pleasure grounds and in the more open spaces of the woodland this Heath, together with E. arborea, E. australis, E. lusitanica (codonodes) and E. Veitchii, are worthy of considerable attention. The flowering season is a lengthy one, extending from March to May, fully three months. The average height of the plants is from 4 feet to 6 feet, although in particularly favourable localities specimens double this height are occasionally met with. In habit E. mediterranea forms a shapely bush; the small, reddish mauve blossoms are produced in profusion, the prominent dark anthers also being very noticeable. In addition to the type there are several varieties of this Heath, notably, alba, with white flowers; glauca, a compact form, with glaucous green foliage; hibernica, found in Ireland; and nana, a dwarf-growing form.

A. O.

THE TOWN GARDEN.

BEDDING-OUT PREPARATIONS.—In this direction the garden at the present time requires much thought. The early bulbous plants have gone out of flower, but are yet full of leaf vigour and growth, and care must be exercised if such things are to be preserved for another year. With so much work on hand it not infrequently happens that Tulips, Hyacinths and Daffodils are lifted and thrown aside, too frequently heaped together and given no thought until the bedding arrangements have been completed. To expect any measure of success after such treatment would be unreasonable, and yet, as I know, this really does happen, though the results are not a little disappointing. To avoid the latter it were better to arrange the beds on some sort of plan—systematically, as it were. For example, the earliest of the bedding Tulips or Hyacinths might be planted where Marguerites or Calceolarias would follow, while the May-flowering and Darwin Tulips, which are so much later, might occupy the beds where tuberous Begonias or other tender subjects would presently appear. This arrangement would simplify matters considerably, and afford the more valuable of the bulbous plants time to ripen off.

HYACINTHS AND EARLY TULIPS.—These rarely pay for keeping after the first year, and the first-named group, which requires a great measure of cultural skill even from the expert grower, may just as well be discarded. The Tulips are somewhat different, and if heeled in for a time could be lifted and dried preparatory to being planted afresh. To lift the Daffodil and subject the bulbs to similar treatment might ruin their chances of success another year, and all Daffodils are valuable in garden or shrubbery. These latter I have frequently suggested should be planted 6 inches or even 8 inches deep, so that a summer bed crop can be planted above them with little or no disturbance.

EDGING PLANTS.—It so happens that quite a large number of the best of these are perfectly hardy, and therefore the more easily dealt with. The Mossy Saxifrages, Antennaria candida, Achillea tomentosa and Cerastium are a few that are not merely hardy, enduring and effective, but that will bear transplanting with impunity. The first-named are excellent carpeters of the soil, and may be employed freely as an undergrowth to other plants. For instance, where the owner of a garden desired to plant out standard or other Fuchsias, these Mossy Saxifrages would be ideal as a surface covering, giving a rich green verdure hardly to be equalled.

ECHEVERIA SECUNDA GLAUCA is an ideal edging plant that is almost hardy. Common in past years as an edging to beds of tender or tropical plants, it is of value to-day by reason of its genial good temper and usually amiable disposition. Indeed, it may be planted almost anywhere except in dense shade. In hot and dry places it is invaluable, and more frequently might play a not unimportant part near the house when the latter has its front facing in a southerly direction. In bedding arrangements, as a rule, the plant is not permitted to flower; but the beauty of its glaucous blue leaves is only half of its charm, and I love to see the plant clothed and in its right mind and giving of its floral best. No position is too dry or too hot for it, and if it can be associated with other succulent plants or Cacti, a pretty effect will be secured for a long time.

EARLY-FLOWERING CHRYSANTHEMUMS, if not already planted, should be ordered without further delay and be got into their respective positions at once. I have a great fondness for such old varieties as Goacher's Crimson and the rich yellow Horace Martin *when well grown*. The latter is important, since the "crimson" in the first-named variety is but little more than a dingy red, a rather rusty-looking flower which does not please. On the other hand, when liberally grown from the start, a fine maroon crimson is developed in the early autumn days, which provides an effective and warm colour mass in the garden at that time.

S. N. N.

GARDENING FOR BEGINNERS.

PLANTING CUCUMBERS IN FRAMES.

N most gardens of limited area that indispensable adjunct the cold frame serves a very useful purpose to those who desire to grow their own Cucumbers. By this period the cold frame, which has sheltered seedlings and many of the less hardy jects, is no longer required for sheltering purses. The cold winds and severe frosts are eriences of the past, and the cold frame may l be utilised for the culture of Cucumbers. It ot wise to commence too early. Some growers ose gardens are situated in warm and sheltered rters begin so early as mid-April. I prefer plant a month later, and seldom fail when iating the work at this period. As a matter of , the third week in May may be regarded as ideal season during which to carry out the nting operations.



1.—READY FOR PLANTING.

A hot-bed is essential, and this needs to be preed in such a manner that it is really good and ing in its effects. Those who can procure the essary hot-bed materials quite easily should ain stable litter and leaves, using the former in proportion of two parts to one part of the latter. acquisition of these materials may be a simple ter to those whose gardens are situated in the ntry, but growers in and around our large ns find some difficulty in procuring leaves. s difficulty may be overcome by utilising cially-decayed hot-bed manure in place of the es. I have often made up very satisfactory beds with stable manure alone, taking rather e care in its preparation than is usually given n the proper materials are used. Prepare the erials comprising the hot-bed at least a week re they are wanted. The heap of manure and es should be turned over several times, as this ures their being well mixed, and also tends to vide a more even temperature when the hot- is made up. There should be an interval of y or two between each turning over of the heap naterials. Very dry manure that has rather much straw in it should be watered, so as to oughly moisten it throughout.

If it is possible, select a position in the garden the hot-bed that is warm and sunny and ered from cold, drying winds, which rapidly extract the heat. It is a good plan to excavate the soil to the depth of 1 foot or more, and the hole should be much larger than the frame all round — a space of 1 foot on each side will answer very well. The bed when finished should be quite 1 foot to 18 inches above the ground-level, and in the making of it the materials should be thoroughly trodden down. The soil for planting should consist of good turfy loam and old Mushroom-bed manure, or that obtained from an old hot-bed, using five parts of loam to one of the spent manure. If loam cannot be obtained, good garden soil should be used instead. When placing the compost in the frame, make up a sloping mound in each partition, and, assuming a two-light frame is used, one mound under each light will be sufficient. The amount of soil in each mound must be regulated by the depth of the frame. When the temperature is somewhere about 85°, two or three seeds should be sown in each mound, and these covered with 1 inch of soil. Later on, when the young plants are progressing, thin out to one plant to each frame-light. On cold nights the frame-lights should be covered with mats, &c. Always keep the soil just moist without being soddened, and the temperature of the water should be the same as that of the frame, viz., 80° to 90°.

Many beginners doubtless will prefer to purchase their Cucumber plants, and for this reason in Fig. 1 two plants such as most nurserymen offer for sale at this season are shown. The plant on the right has been shaken out of its pot in order that the reader may see the vigorous character of the roots, and that the readiness of the plant for its permanent position may be appreciated. The second illustration (Fig. 2) shows two plants adjusted in position. They are planted in mounds of good soil, and depressed in such a manner as to enable the grower to peg down the growths easily and satisfactorily. So soon as the plants have developed a second or third leaf, the top of each one should be pinched out. This will encourage the formation of the much-to-be-desired main shoots, which should be kept in position with wooden pegs.

D. B. CRANE.

STOPPING THE YOUNG SHOOTS OF FIGS.

INEXPERIENCED cultivators of Figs very often lose a good crop of fruit through neglecting to pinch off the ends of the young shoots. Trees growing in pots or planted out in glass structures which are moderately heated must have the young shoots pinched when the latter are about 6 inches long. The result will be the formation of a number of embryo fruits on the harder wood immediately below that point where the new shoot commenced to grow. In a few cases the result of such stopping of young shoots is the production of numerous shoots from the stem instead of fruits; but it is not often that this occurs.

Later on, trees growing in the open air will require similar treatment; then full crops will be secured and the trees will be quite under control. By watching the growth during the summer months and duly pinching out all very weak side shoots while they are quite small, very little pruning of hard wood will be necessary at any time. At least two crops of fruits may be had from the same trees in one year. The proper time to feed the trees a little is when the fruits are swelling.

B.

PLANTING OUT VIOLETS.

YOUNG, vigorous plants bear finer flowers than old, weakly ones. Strong clumps look far more pleasing to the eye than a patchy bed of old plants. The young clumps can be lifted and transplanted in other positions in the garden, and also in frames; but the old specimens, the roots of which have spread and interlaced, are practically useless for such purposes. Many cultivators use rooted runners from the frames for making new plantations. I have done so to a great extent, and with considerable success; but such runners must be well prepared and attended to, or they may prove to be nothing more than weaklings. To such I prefer later-rooted runners from strong, open border plants. Do not be content to allow the runners to form roots by merely penetrating the ordinary surrounding soil, but make up a compost of loam, leaf-soil, sand or road scrapings and place a good handful around each runner, fastening the latter down with a flat, heavy pebble. If kept duly watered, the runners will soon be fit to transfer to their summer quarters in readiness for all purposes, including that of forcing in frames next winter.

It seems a very simple matter to plant Violets, and it is, especially if the right way be adopted. The best results depend very largely upon the manner



2.—THE SAME PLANTS IN A COLD FRAME. THE STEMS ARE PEGGED DOWN

of planting. Single rows of plants put in between lines of recently-planted Gooseberries or Currants usually do remarkably well. A border facing the west is a good one for Violets in summer-time. The soil must be deeply dug and well enriched with rotted manure; and if the planting can be done as the work of digging proceeds, so much the better, as Violets do not thrive in hard-trodden soil. A distance of 2 feet between the rows and 18 inches from plant to plant in the rows will admit of the full development of the clumps without any overcrowding, except in the case of the variety Princess of Wales, the plants of which should have 3 inches more space each way.

Red spider must not be allowed to attack the plants, else the leaves will be ruined. Every morning and evening about seven o'clock syringe the foliage thoroughly, wetting the under sides of the leaves. See that the plants never suffer through lack of water at the roots, and they will remain healthy all the season. The tiny runners must be cut off regularly. B.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY, MAY 9.

ODONTOGLOSSUM ILLUSTRISSIMUM QUEEN MARY.—This is one of the finest Odontoglossums that we have seen recently, and it received the high award of a first-class certificate. The petals and sepals are deep crimson mahogany in colour; the lip is marked crimson and gold, and tipped with pure white. Parentage: O. lambeanianum × O. ardentissimum. Shown by W. Thompson, Esq., Walton Grange Gardens, Stone.

An award of merit was granted to each of the following:

Miltonia hyeana inversa.—The plant shown was remarkable for its immense flowers, measuring over 6 inches from the dorsal sepal to the lip. The flowers are of pale pink, with a blotch of brown on the upper portion of the lip. Shown by F. M. Ogilvie, Esq., The Shrubbery, Oxford.

Odontioda rosefieldense.—A beautiful self-coloured hybrid with orange flowers. The colour is a most pleasing one, and blends with the golden orange tint of the lip. It is very free-flowering; the plant shown carried thirteen flowers on one spike. Parentage: Cochlioda noetzliana × Odontoglossum triumphans. Shown by de B. Crawshay, Esq., Rosefield, Sevenoaks.

Odontoglossum harvengtense crawshayana.—This variety produces symmetrical flowers of average size. The ground colour is yellow and the perianth evenly marked with nut brown blotches. Parentage: O. crispum × O. triumphans. Shown by de B. Crawshay, Esq.

Rose Orleans.—This very beautiful Polyantha variety is of the perpetual-flowering class, and calculated to be of much value as a bedding variety. The exhibited examples carried large trusses of bloom, while from these flowering stems other trusses had already formed and were in considerable numbers. It is obviously a free as well as a profuse bloomer. Exhibited by Messrs. William Paul and Sons, Waltham Cross.

Asplenium decorum.—Briefly this may be referred to as a compact-growing form of A. divaricatum, from which it is a sporeling. The new-comer falls naturally, we presume, into the bulbiferum class, and readily reproduces itself by the same proliferous means. Exhibited by Messrs. H. B. May and Sons, Edmonton.

Viola Moseley Perfection.—A large-flowered variety of rich golden yellow colour, the flowers only slightly rayed, and frequently not at all. From Messrs. Bakers, Codsall, Wolverhampton.

Rose Mrs. George Shawyer (H.T.).—A really splendid variety, with huge flower-buds that in form remind one of Joseph Lowe. The growth and habit are, however, very distinct, the stems stiff and strong. From Messrs. Lowe and Shawyer, Uxbridge.

Ismene festalis.—This most interesting hybrid has pure white flowers, borne upon strong stems 18 inches long. We are not aware of its parentage, though the exhibited examples would suggest Ismene calathinus and one of the hardy Pancratiums. Exhibited by Mr. A. Worsley, Isleworth.

Rhododendron Dawn's Delight.—This may be likened to a richly-coloured Pink Pearl, but the plant flowers considerably in advance of that variety and has distinct foliage. It is very handsome. Exhibited by Miss Mangles.

Narcissus Socrates.—A Poeticus variety, large, shapely and of fine petal texture. The rather depressed crown is conspicuously bordered with red. Exhibited by Mr. Herbert Chapman, Rye.

As the result of vegetable trials at Wisley, an award of merit has been granted to each of the following: Asparagus Green Canadian, Messrs. Barr and Sons; Asparagus Early Giant French, Messrs. James Veitch and Sons; Kale The Labrador, Messrs. Laxton Brothers; and Cabbage Harbinger, Messrs. Sutton and Sons.

NURSERY NOTES

TULIPS AFTER THE SPRING FROSTS.

THERE were clouded brows, there were downcast hearts, among Tulip-lovers when, in early April, one of the most terrible blizzards for the period within memory raged through nurseries and gardens. The bitter wind swept down on the tender up-springing plants laden with snow and hail. Icicles a yard long hung from the spouts. The foliage was blasted as with fire. It wilted and shrivelled pitifully. I am a Tulip-lover, and have a fairly representative collection of good varieties. The sight of them after nearly a fortnight of appalling winds made my heart ache. I could not walk with seeing eyes among the plants; I passed them with drooping head. And I had letters from Tulip-loving friends which it was really painful to read.

But after it all? Well, we are having one of the best seasons for early Dutch varieties that I remember, and we have a very fair promise with the Darwin and Cottage varieties. The plants have, indeed, made a marvellous recovery; and although one or two of the late varieties, notably the magnificent Pride of Haarlem, seem unlikely to display their pristine vigour, the majority will probably be up to the average.

One of the chief sufferers in April was Mr. W. C. Bull, who has several acres of bulbs at Newington Road, Ramsgate, and grows a large number of the best varieties; but at the end of that month he had a glorious display. I do not think that I have ever seen some of the standard early varieties so good. Keizerskroon, for example, although comparatively dwarf, was astonishing in size and substance of bloom. The old Chrysolora was enormous, and put to shame even that fine yellow Prince de Ligny—at all events in size. Dussart was gigantic and simply gleaming with colour. Couleur Cardinal shone with the dusky splendour of old wine. Crimson King, the best for window-boxes on account of its dwarfness, glowed with a cheerful warmth.

I append a word or two about a few other notable single varieties, some of which are not well known. Pink Beauty, deep rosy red, white plush on outer petal, large, good stalk, a splendid variety; Koh-i-Noor, dark violet red, glossy, rather like Couleur Cardinal; Scarlet Perfection, bright and good; Fire Flame, smoky rose, blooms early in May; alba regalis, cream, stiff stalk; La Boule d'Or, pointed, reflexed petal, bright yellow, distinct and good; Rose Luisante, perhaps the best pink, certainly superior to Cottage Maid; Fred Moore, an improved Thomas Moore, resembling the old variety in colour, but larger and richer, a grand sort; Hector, carmine, shaded plum, yellow edge, a lovely sort; Le Rêve, old rose, good for pots; and Royal White, like a half-submerged Water Lily. Of doubles I noted the following: Double Queen of the Netherlands, tinted white, good for bowls; Safrano, saffron, later on flushed with crimson, almost like a Tea Rose; Reine des Roses, rose, semi-double; Le Blason, pink, semi-double; Blanche Hâtive, white, semi-double; alba maxima, cream; Princess Clotilde, cerise, a charming shade; Golden King, a yellow sport from Tournesal; and Lord Beaconsfield, cerise, delightful for bowls.

Mr. Bull also had a fine lot of Narcissus Poeticus varieties, including such good sorts as Ben Jonson, Cassandra, Herrick and Sonnet. I thought Ben Jonson, of which there were two remarkable beds, the best, for in addition to its good flower it was tall and strong. The late Barri Dorothy Wemyss, with its long stem and bright salmon crown, was very conspicuous. So good a variety ought to find many growers, especially in view of its lateness. WALTER P. WRIGHT.

THE EDITOR'S TABLE.

PRIMULA NOVELTIES FROM SCOTLAND.

Dr. MacWatt sends another consignment of interesting Primulas from his garden at Morelands, Duns. Among the novelties sent are double blue Primroses, Primula Helvetica, P. ciliata purpurea, a blue Jack-in-the-Green (in which the colour is well defined) and Primula cortusoides Morelands Seedling. A double yellow Auricula of a beautiful golden colour is included in this interesting collection.

WOOD ANEMONES FROM HAMPSHIRE.

Mr. G. Stapleton sends a bunch of the interesting blue-flowering variety of Anemone nemorosa with the following note: "I am sending some wild anemones picked recently in one of our North Hampshire woods for your table. I think twenty-four hours in water will revive them sufficiently for you to see their beautiful colour. I hope you will say what you think of them as genuine wildings."

[The flowers, which were received in good condition, are remarkable for their clear blue sepals. The Wood Anemone is generally white, but it is inclined to vary in colour. It is frequent in our native woods, and worthy of extended planting in shaded shrubberies.—ED.]

POLYANTHUSES FROM CORNWALL.

We have received a beautiful selection of these flowers from Mrs. E. Allchin, Tredudwell, Fowey, Cornwall. The flowers are borne in very large trusses, and the predominating colours are deep crimson and rich canary yellow. The following note accompanied these welcome flowers: "I am sending you a few Polyanthuses for your table. They are grown from Barr's Exhibition and mixed varieties. We think they are very good, as they are only seedlings. I sowed them in March, 1910, planted them out in their permanent places in August, and they have been flowering about three weeks, but are now at their best. I always use a little bone-meal and soot when putting them in their permanent quarters."

THE PARENTAGE OF ROSES.

(*Continued from page 231.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
ourpurea	P.P.	Levavasseur	1910	Mme. M. Levavasseur × Perle des Rouges
nschien	M.S.	Lambert	1905	Euphrosyne × Mme. Ocker Ferencz
ste Barbier	H.W.	Barbier	1900	R. wichuraiana × L'Ideal
Comte	Tea	Soupert	1896	Marie van Houtte × Mme. Lambard
Mie	H.P.	Laffay	1851	Seedling La Reine
stine Guinoisseau	H.T.	Guinoisseau	1889	Sport La France
ra	Tea	Nicoff	1907	Bon Silene × Souv. de President Carnot
alia	H.T.	Kerslake	1907	Mrs. W. J. Grant × Caroline Testout
al Queen	H.T.	Australia	—	President × Mrs. John Laing
eur Blériot	H.W.	Fauque	1909	R. wichuraiana × William A. Richardson
hire Queen	Ayr.	Rivers	—	Blush Austrian × Tuscany
ne Morel	Tea	Nabonnand	1906	Marie van Houtte × Sylphide
us	H.P.	Trouillard	1855	Seedling Geant des Batailles
fisch	P.P.	Lambert	1909	Mme. Auguste Guillard × Eugénie Lamesch
elle	M.S.	Soupert	1908	Crimson Rambler × Mignonette
vin	H.T.	Lambert	1896	Charles Darwin × Marie van Houtte
ste Despartes	H.P.	Trouillard	1864	Seedling Geant des Batailles
u Job	H.B.	Nabonnand	1877	Seedling Gloire des Rosomanes
et Deschamps	H.P.	Vigneron	1867	Seedling Comte de Brobinsky
-Duc	M.S.	Soupert	1907	Souv. de Pierre Notting × Crimson Rambler
A. de Rothschild	H.P.	Lacharme	1862	Seedling General Jacqueminot
de Bonstettin	H.P.	Liabaud	1871	General Jacqueminot × Geant des Batailles
Girard de l'Ain	H.P.	Reverchon	1897	Sport Eugène Fürst
Lassus de St. Genies	H.P.	Granger	1867	Seedling Triomphe de l'Exposition
von Lade	H.T.	Welter	1903	Kaiserin Augusta Victoria × Princesse de Bearns
„ Pallandt	H.T.	Welter	1905	Marchioness of Salisbury × Marquise Litta × van Houtte
ess Rothschild	H.P.	Pernet p.	1867	Seedling Souv. de la Reine d'Angleterre
in Anna von Luttwitz	M.S.	Walter	1909	Euphrosyne × Rosel Dach
Armgard von Biel	H.T.	Jacob	1905	Seedling Kaiserin Augusta Victoria
ne C. de Gargan	Tea	Soupert	1893	Mme. Barthelemy Levet × Socrates
„ Huart	H.T.	Ketten	1910	Pharisaer × seedling
de Fonville	D.T.	Gonod	1886	Seedling Beauté de l'Europe
„ Stael	Gal.	Vibert	1820	R. gallica × a Damask
F. van der Noot	Tea	Ketten	1896	Adam × Adrienne Christophle
M. de Tornaco	Tea	Soupert	1897	Marie van Houtte × Papa Gontier
N. de Rothschild	H.P.	Pernet p.	1885	Baroness Rothschild × Souv. de Reine d'Angleterre
x Comtesse de Buisserot	H.T.	Soupert	1899	Seedling × Caroline Testout
é de Grange d'Heby	H.T.	Ducher f.	1890	Baroness Rothschild × Mme. C. Guinoisseau
„ l'Europe	D.T.	Gonod	1881	Gloire de Dijon race
„ Lyon	Pernet	P. Ducher	1910	Seedling × Soleil d'Or
Lyonnaise	H.T.	P. Ducher	1895	Seedling Baroness Rothschild
y of Stapleford	H.T.	Bennett	1880	Alba rosea × Countess of Oxford
Leroux	P.P.	Soupert	1900	Mignonette × Archiduchesse M. Elizabeth
Angevine	H.P.	Robert	1856	Sport Baronne Prevost
le Bordeaux	D.T.	Lartay	1861	Seedling Gloire de Dijon
les Jardins	Gal.	Guillot f.	1872	Seedling Village Maid
Lyonnaise	D.T.	Levet	1869	Seedling Gloire de Dijon
Normandie	H.P.	Oger	1864	Sport La Reine
Panachée	Tea	Gamon	1902	Sport Francis Dubreuil
a Klemm	Tea	Nabonnand	1905	Safrano × G. Nabonnand
e Thouvenot	Tea	Ketten	1898	Mme. Bravy × Clara Pfitzer
Johnson	H.P.	Curtis	1872	Sport Abel Grand
student	P.P.	Lambert	1909	Euphrosyne × Seedling Sunset
etu	H.Rug.	Gravereaux	1907	Pierre Notting × Safrano × Conrad F. Meyer
d et Barré	Tea	P. Ducher	1898	Alice Furon × Duchesse d'Auerstadt
Blye	M.S.	Conard and J.	1907	Hélène × Bon Silene
Double de Coubert	H.Rug.	Cochet C.	1892	Sombreuil × R. rugosa
he Martignat	Tea	Gamon	1903	Marie Van Houtte race
Moreau	P.M.	Mor. Robert	1880	Comtesse de Murinais × White Perpetual
enschmidt	Tea	J. C. Schmidt	1905	Sport Francisca Kruger
Rambler	M.S.	B. R. Cant	1904	Crimson Rambler × The Garland
eu	H.P.	Garçon	1877	Jules Margottin × Baronne Prevost
u	H.P.	Mor. Robert	1883	Seedling Victor Verdier
aux	M.S.	Soupert	1907	Crimson Rambler × Blanche Rebatel
op Baby	P.P.	Wezelenburg	1909	Mme. N. Levavasseur × Euphrosyne
iet d'Or	D.T.	Ducher	1872	Gloire de Dijon race
n d'Or	Tea	Guillot f.	1866	Seedling Canary
maid	Tea	Moore	1893	Sport Catherine Mermet
's Superb	H.C.	Brown	1829	A Tea × a China
Findlay	H.P.	G. Paul	1891	Charles Lefebvre race
	H.P.	Guillot f.	1859	Seedling Eugène Appert
nk	Ch.	Burbank	1900	Hermosa × Seedling Bon Silene
e Scharash	H.P.	Geschwindt	1887	Seedling Jules Margottin
rpa	H.Rug.	Bruant	1895	R. rugosa × common China
ienvogel	P.P.	Welter	1904	Etoile de Mai × Souv. de C. Guillot
ine A. Malibran	Tea	Tesnier f.	1894	Seedling Gloire des Cuivrées
Millet	Tea	Ketten	1901	General Schablikine × Mme. Ettienne
Soupa	H.P.	Laperriere	1902	Caroline Testout × Victor Verdier
in Christy	H.T.	Lacharme	1873	Victor Verdier × Safrano
Hayward	H.P.	Bennett	1893	Triomphe de l'Exposition race
al	Ch.T.	Welter	1904	Laurette Messimy × Empress Alexandra of Russia
Patrizzi	H.P.	Trouillard	1853	Seedling Geant des Batailles
n	H.Rug.	Lambert	1906	R. rugosa rosea × Princesse de Bearns
Sylva	H.T.	Heidecker	1891	Baroness Rothschild × Mme. Barthelemy Levet
ne d'Arden	H.P.	A. Dickson	1888	A. K. Williams × Marie Baumann
Kuster	N.	Pernet p.	1872	Seedling La Pactole
Swailes	H.P.	Swailes	1884	Seedling Eugène Verdier
Testout	H.T.	P. Ducher	1890	Mme. de Tartas × Lady M. Fitzwilliam
r Moulle	H.W.	Barbier	1910	R. wichuraiana × Mme. N. Levavasseur
ine Gerchen-Freundlich	Tea	Ketten	1896	Alphonse Karr × Lady Zoe Brougham
Guillot	B.P.	Guillot f.	1861	Seedling Louise Odier
Soupert	H.P.	Lacharme	1879	Seedling Jules Margottin
Charles	Tea	Schwartz	1906	Luciole × Mme. Falcot
	H.T.	W. Paul	1906	Marquise de Vivens × Marquise de Salisbury
lia rosea	H.P.	Touvais	1863	La Reine race
Dingee	Tea	D. and Conard	1910	Hermosa × White Maman Cochet
Gater	H.P.	G. Paul	1893	General Jacqueminot race
Lefebvre	H.P.	Lacharme	1861	General Jacqueminot × Victor Verdier
Margottin	H.P.	Margottin	1864	Triomphe de l'Exposition race
Molin	H.T.	L. Mermet	1907	Seedling Eugénie Boullet
Verdier	H.P.	Guillot p.	1867	Seedling Victor Verdier

A key to the abbreviations will be found on page [illegible]

LATE TULIPS AT VINCENT SQUARE.

THERE were eight exhibits at the last meeting of the Royal Horticultural Society. Except for Southern and Irish grown flowers, the 9th was a little early. Wallace's beautiful exhibit would have gained in the size of its individual blooms with a few more days' growth, while Massey's showed still more the need of a long time for development. At the Temple, in this dry and trying year, I am afraid we will find reverse conditions prevailing. Flowers then are more likely to be on their last legs. If 1912 were an ordinary year without a great International show, where Tulips are being so well provided for, I would go to all the Tulip people that I know and see if I could not persuade them to sign a round robin to the Royal Horticultural Society praying for an inter-weekly show for the "peacocks" of the floral world. We are going to have a "Daffodil" day (or days, to be strictly accurate) next season. Why not a "Tulip" day?—a day when "le plus bel ornement du Paradis terrestre"; a day when "l'Impératrice des fleurs et la plus belle production de la Nature" (Le Florist François, 1654); a day when the flower "whose bravery excelled Solomon in his greatest lustre," when "the most glorious ornaments of the best gardens," "Flora's choicest Jewels" (Flora, seu de Florum Cultura—John Rea, 1665) might hold undisputed sway, and by their glorious magnificence compel the homage of all who can enjoy the splendour of colour. Somehow it seemed incongruity personified to see so many of them tucked away in the two annexes, where, I fear, they "blushed unseen" by many. Who would ever think of going to those dark, confined regions to find these ancient magnates. Alas! Alas! "Sic transit gloria mundi.".

Two of the eight groups received the highest award of the day, viz., a silver-gilt Flora medal. Messrs. R. W. Wallace and Co. of Colchester in their arrangement struck out a new line with a singularly happy effect. Instead of the usual higgledy-piggledy array of isolated blobs of colour, there was a carefully-graduated scheme of pink, mauve and red, in which all the individual sorts of a similar tone were beautifully blended together.

Somehow it seems inappropriate to describe in detail individual varieties when the emphasis should be on the general effect. I must, however, just refer to the firm's recent introductions Beau Brummel, Marksman, Norman Knight and Audley as beautiful examples of red and orange red varieties after the type of the grand old Orange King. Nor can I omit a passing reference to Blue Eye, a real blue-eyed beauty; to John Ruskin and Beauty of Bath, with their charming harmony of colour; and to the quaint blending of yellows and browny reds which were to be seen in Orion and Quaintness.

Messrs. Hogg and Robertson of "Holland in Ireland" fame gained their high award for the individual excellence of their blooms. They were literally immense and very clean and fresh-looking. The Erguste and Farncombe Sanders were splendid examples of good culture, and there were many others equally as fine. A variety called Biscuit was very pleasing. It is one of the best of the paler browns. Its proper name is Clio or Bronze Queen. Lord Byron is an early May flowerer, and is of a taking shade of deep cherry red. Ronald Gunn is an excellent example of one of the purples with lavender edges, and reminds one a good deal of La Trislesse. Other beautiful things were Leghorn Bonnet (straw), La Merveille (orange red), Garibaldi (yellow and bronze pointed petals), Psyche (rose Darwin), and May Blossom (violet bebleumen)

Messrs. Alex. Dickson and Sons had a large exhibit which was not very far behind the two already mentioned. The usual type of grouping was somewhat departed from, and there was a lower flat foreground with the flowers behind considerably raised, and this again broken by handsome masses of one variety at regular intervals. Golden Sceptre (yellow bizarre with a feathered edge of brown), Grand Master (lilac mauve Darwin), Tara (rich ruby rose), Scarlet Emperor (scarlet), Golden Vase (old gold and bronze), and Scarlet Star (scarlet Darwin) were Tulips to note.

Messrs. Barr and Sons, who with the last-named firm were awarded a silver-gilt Banksian medal, had a finely-grown collection, in which were included several novelties, of which Lady of the Lake (soft yellow pointed flower) and Moonlight (long deep primrose) were perhaps the best. The latter appealed to me very much, and as I had not got it in my own collection, I promptly ordered some. Inglescombe Yellow is another fine Tulip that was well shown here. Chameleon is a very distinct thing which is difficult to describe. The ground of the flower is pale yellow, and it has broad, irregular markings of heliotrope and maroon. Miss Jekyll (white with a lovely blue base), Loveliness (charming rosy pink Darwin), Louis XIV. and Inglescombe Pink must also be mentioned.

The other collections staged were from Messrs. Sutton and Son, R. H. Bath, Limited, George Massey and Sons, and James Box. Among them were to be found good examples of King Harold (grand rich crimson Darwin), alba elegans (white, vase-shaped bloom with a wire edge of red round each petal), Feu Ardente (magnificent tall currant red), Glare of the Garden (crimson), Suzon (rose and flesh coloured Darwin), and Isis (grand carmine scarlet Darwin). JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers o Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Tall and dwarf Cannas (*C. K. C. S., Upper Burma*).—Of the varieties concerning which you enquire, the dwarfest-growing is Königin Charlotte, a very showy flower, the segments of which are scarlet, clearly edged with gold. This will flower in pots when not more than 2 feet high; but planted out in good soil it will grow taller than that. The other varieties on the list, if confined in pots, will grow from 2½ feet to 4 feet, but planted out they will, of course, grow taller. These Cannas are in this country often grown for decorative purposes in pots 6 inches in diameter, under which conditions the varieties enumerated by you will bloom well when 2½ feet to 4 feet high; but planted out in good soil and given a favourable summer, some of them will attain a greater height. We can fully understand the great decorative value possessed by Cannas in a climate such as yours. It gives us great pleasure to learn that THE GARDEN is so much appreciated in such a far-off part of the world as Upper Burma, as it has always been our aim to study readers in whatever part of the world they may be situated and to whatever nationality they may belong.

Polyanthuses for inspection (*J. B.*).—The blue flower sent is a very good one, the colour being exceptionally bright. The yellow one is what is known as a Hose-in-hose Polyanthus, and is fairly common.

Plants for border (*E. H.*).—It is highly probable that the Euonymus hedge and the dryness around militate against success. The root-fibres of the shrub named are about as voracious as the Privet, and few plants can endure where these grow unchecked. The better way would be to deeply cut away the root-fibres of the shrub, manure the ground and try again, for if Marguerites, Zonal and Ivy-leaved Pelargoniums will not thrive, we hardly know what to recommend. The Zonal Pelargoniums should be planted in their pots.

THE GREENHOUSE.

Climbers for a conservatory (*A. W. J.*). Quick-growing climbers likely to suit your purpose are: For the conservatory—Abutilon Thompsonii, with creamy variegated leaves and bell-shaped flowers, in colour yellow, with reddish veins; Cobæa scandens, an exceedingly rapid grower, with purple, bell-shaped blossoms; C. s. variegata, a variegated-leaved variety of the preceding; Ruscus androgynus, long pinnate leaves of a stout leathery texture; Passiflora cærulea racemosa and P. Impératrice Eugenie, two good Passion Flowers; Habrothamnus aurantiacus, orange; H. Newellii, red; Tacsonia exoniensis, rose; and T. Van Volxemii, scarlet. For the greenhouse—Abutilon vexillarium variegatum, small variegated leaves and red and yellow flowers; Clematis indivisa, white; Fuchsias of sorts; Hibbertia dentata, yellow; Jasminum grandiflorum, white, very fragrant; Kennedya prostrata Marryattæ, scarlet; Plumbago capensis, blue; Lantana salviæfolia, lavender; Mandevilla suaveolens, white; and Lonicera sempervirens minor, red and yellow.

Azaleas and Violets (*K. A. W.*).—The Azaleas may be supplied with liquid manure once a week during their season of growth, a tablespoonful of any of the reliable fertilisers being added to a gallon of water and well stirred before using. Azalea indica is not hardy and requires greenhouse or warm frame protection. A. mollis is a perfectly hardy deciduous shrub. Violet runners root in about a month after being pegged down. "Pegging down" is exactly what is implied in these words, and consists merely of bringing the runner into constant touch with the soil; hence a stone, hairpin or bent piece of wire would suffice. "Layering" is a quite distinct operation, and in this instance the shoot must be cut in an upward direction from one joint to the next above, the lower portions of the cut so formed creating a tongue or nib, whence roots are emitted in due course. The operation requires some practice to ensure success. No licence is necessary, so far as we are aware, for the sale of cut flowers in streets. We cannot answer your enquiry about the number of spikes of Lily of the Valley to a penny bunch. Make them up in neat bunches of at least two sizes, and sell them at a penny or twopence each. Such things regulate themselves quickly enough.

ROSE GARDEN.

Climbing Rose for greenhouse (*Mrs. G.*).—A very beautiful and fragrant Rose for your purpose would be Hugh Dickson or J. B. Clark. If you could procure a plant in a pot with long shoots, you would obtain blooms this year. Another lovely sort is Grüss an Teplitz.

Dorothy Perkins and Crimson Rambler unhealthy (*Anxious to Know*).—In all cases the wood sent is very unripe, and in this condition very liable to attacks of fungus and other diseases. We believe in the case of the ramblers the growths were checked in some way last season, either by dryness at the root or over-manuring. In any case, it is best to cut away such wood quite to the ground, and in the case of Frau Karl Druschki perhaps pegging down the shoots would alter it. Avoid feeding with manure of too strong a nature, and open out the growths remaining as much as possible to induce a more perfect ripening. Spraying with Bordeaux mixture would be beneficial also.

Failure with pot Roses (*H. S. W.*).—We think the failure and consequent deformed blooms are owing to the want of sufficiently establishing the plants before bringing them under glass. All Roses planted in the autumn, when grown outside, should not be brought under glass until the following autumn. They need at least a year to establish themselves, and are best plunged in soil or ashes outdoors in an open situation and well looked after during the summer. Some growers bring the plants indoors in the early spring, but bottom-heat is given, which assists root action. It may be you have also refrained from pruning the plants sufficiently hard. This would account for the very puny blooms.

MISCELLANEOUS.

To remove ink from zinc labels (*T. W.*).—The only way to use old zinc labels would be to paint them over with white paint or to scrape away the old writing. The "ink" used eats into the label to some extent and so becomes indelible.

Poisonous plants (*E. C.*).—It is difficult to suggest what can be the cause of the trouble of which you complain, but there are a large number of plants which produce irritation in certain people, among them Ivy (of the ordinary kind), Hyacinths (especially Roman), Narcissus (the sap when gathering blooms) and so on. There are also numerous mosquitoes abroad on fine days in the spring, and it is possible that to these you must look as the cause of the irritation.

Insects for identification (*Worried*). — The creatures damaging the Tulips in your garden are two kinds at least—the rather long, many-legged millipedes and the smaller white springtails. It is probable that the former begin the work; the latter carry it on. In our experience both these pests are most prevalent in rich garden soil containing much organic matter and poor in lime. You would probably find that a good dressing of quicklime, put on in the autumn at the rate of half a bushel to the square rod, would materially reduce the pest.

Weed destroyer for pond (*J. J.*).—We have known copper sulphate to be used in water without injuring fish or Water Lilies. The copper sulphate was used at the rate of 2½oz. to 10,000 gallons of water. On the other hand, we have known the leaves of Water Lilies to be injured when a somewhat stronger mixture was used. We do not recollect hearing of any injury to fish by the use of copper sulphate, but we should say that it would be very likely to cause serious results if it were not used with extreme care. The above-mentioned proportions are usually recommended.

Anemones attacked by fungus (*Reigate*).—The Anemones have been destroyed by the fungus Sclerotinia tuberosa, of which you send the fruit. This pest is very destructive to Anemones of many kinds, and is often common on Anemone nemorosa, of which robinsoniana is a form. It is said that collecting the fruits as soon as they appear checks the disease. Your observation that the cleansing of the underground parts of the fungus succeeded in checking the trouble is a very interesting one, and we should be glad to hear the result if you have further opportunities of carrying on similar experiments with it. It is different in several ways from Peziza vesiculosa.

Tulip bulbs for inspection (*C. W.*).—If you examine the Tulip bulbs that have failed you will find several little black masses of about the size of a Pea about them, and there are probably others present in the soil. It is this fungus that has caused the failure of the Tulips, and the black masses are the provision, consisting of closely compact growths of fungus mycelium, the fungus makes for passing through the winter. It is, of course, possible that the bulbs were infected with the fungus before they were planted, but it is more probable that the soil in which they were planted was infected, and it is certain that it will be after this year, so that it would be best to remove all the soil to a depth of, say, 5 inches or 6 inches and replace with fresh, mixing in powdered quicklime if it is desired to grow bulbs in it next year.

Profitable crops for market (*R. A. B.*).—It is always a difficult matter to make the most of a private garden when the time comes to convert it into a market garden, and especially for the reason that many of the glass houses are occupied by permanent crops, such as Vines, Peaches and Figs. Peaches and Nectarines pay as well as, or better than, any fruit grown under glass if well done. Strawberries are profitable when planted thickly in August in cold pits and made to bear fruit about a fortnight or three weeks before the outdoor ones. The pot ones are generally over by then, and those in cold pits fill a want greatly felt and command handsome prices. Melons pay very well when grown in summer with little or no fire-heat. You must bear in mind not only which are the most remunerative crops to grow, but also how to grow them at the least cost. You are on the right lines, we think, with Tomatoes. Grow as many as you can under glass, and plant largely outdoors also in sheltered, sunny positions. They often give better returns than anything else in the garden. Have strong, young plants at planting-out-time. Some flowers pay to grow also, notably Roses, Carnations, Sweet Peas, and late summer and autumn Chrysanthemums.

Names of plants.—*R. A.*—Berberis Darwinii, Acer species (send mature leaves), Amelanchier canadensis and Tiarella cordifolia.——*A. B. Purchas.*—Collomia coccinea.——*K. B.*—Daphne pontica.——*M. K.*—1, Nephrolepis Piersonii lycopodioides; 2, N. Piersonii; 3, Asparagus myriocladus; 4, Begonia semperflorens; 5, Spiræa astilboides; 6, Cupressus pisifera pilifera; 7, C. lawsoniana; 8, C. macrocarpa; 9, Coleus thyrsoideus.——*W. H.*—Scilla italica.——*H. E. Sparks.*—1, Cydonia japonica alba; 2, Pyrus floribunda; 3, Philadelphus coronarius; 4, Daphne pontica; 5, Quercus Ilex (Holm Oak); 6, Rosmarinus officinalis; 7, probably Liriodendron tulipifera.——*P. H.*—Spiræa arguta.——*Jim Crow.*—1, Do not recognise; probably a Salvia species; 2, Campanula latifolia.——*G. W. Marshall.*—Prunus Padus.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor must state that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden W.C

THE JOHN INNES HORTICULTURAL INSTITUTION.

A FEW weeks ago we had occasion to refer to the relative value of horticultural experiments which have been, or are being, conducted throughout the country, and since then we have received the directors' report of the first year's work that has been done at the recently-founded John Innes Horticultural Institution. In addition, we have been able, through the courtesy of the Director, to visit the institution at Merton Park, Surrey, and to thus gain some idea of the kind of work that is being done there, but which is, as yet, necessarily in its infancy.

Briefly, the work is to be scientific research into all matters pertaining to horticulture and, in a less degree, agriculture. This in itself may seem insignificant; yet when the many problems that need elucidation are marshalled before us, we realise how little is known about plant-life, and especially the hybridising and crossing of different species and varieties. Well equipped with up-to-date laboratories and plant-houses, the latter specially designed for plant-breeding on the strictest possible lines, this new institution is admirably adapted for research work of practically all kinds.

We have heard, on more than one occasion, that the results of the work of the institution will be of little, if any, value to practical gardeners; but this is taking an altogether too narrow view of the work. For instance, one of the many experiments now being carried out at the institution is the crossing, on Mendelian lines, of different species and varieties of Strawberries. We presume that any new ones that may be secured in this way, and which are of special merit, will, in due course, come into commerce, when not only the professional gardener, but the community at large, will benefit from the work. Another experiment is with Sugar Beets, primarily with a view to producing a type which will not run to seed in the first year. Flax, again, is being experimented with, and if varieties capable of giving a 10 per cent. heavier yield of fibre than any we have at present can be evolved, the work of the institution will be fully justified.

In another part of the experimental grounds we saw a number of seedling Chrysanthemums, and these are to be grown on with a view to securing varieties that shall be immune from that troublesome fungoid disease popularly known as rust. This may not, of course, be possible, or, if it is, will no doubt take a considerable amount of time; but we think there is not one grower of this flower who will not welcome such varieties if ever they are produced. Primulas, Peas, Petunias and Begonias, as well as many other kinds of flowers and vegetables, are being crossed, always with some definite object in view. Thus, in Begonias special attention is being given to winter-flowering species and varieties and the inheritance of double flowers. It is well known, of course, that a great deal has been done with these by nurserymen; but there is still room for investigation and experiments.

Fruit trees are also being crossed, with a view to finding out what may be secured from the second generation. This is of necessity a slow process, and one to which most nurserymen cannot afford to devote time and money. Yet it may be that its possibilities are immense, and, as with every other experiment, any good results of such work must eventually benefit the general public.

Of quite a different nature are the experiments which are being made with cyanide of potassium as a fumigant. At present very little is known of this dangerous yet effective substance, and gardeners of all kinds would welcome some definite data about it. Diseases of fruit trees are also being investigated, and although a great deal has been learned about these during recent years in other directions, there is still room for further research. Given the cause of a disease, the remedy in many cases is not difficult to find. The subject of graft hybrids is also receiving attention on a large scale, as well as the variegation of plants, and already some interesting and valuable results have been obtained in the first-named direction.

As already stated, the work of this institution is as yet in its initial stages; but conducted as it is at present on the strictest and most up-to-date lines, its effect on horticulture in years to come will, no doubt, be of an important and far-reaching character, and we shall look forward each year to the annual report which we understand it is the intention of the Council to publish. If this report is of a comprehensive character it should prove of considerable value to all interested in plant life.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 30.—Rhododendron Show, Royal Horticultural Hall, Vincent Square, Westminster (four days.)

May 31.—Bath and West and Southern Counties' Show at Cardiff (six days.)

June 1.—Linnean Society Meeting, 8 p.m. Ipswich and East of England Horticultural Society's Show (two days.) Exhibition of Rhododendrons, daily during June at the Royal Botanic Gardens, Regent's Park.

The Temple Show.—Following our usual custom, we give in this issue a Special Supplement containing a report of the great Temple Show. Any exhibits not included in the report will be dealt with next week

The Royal Horticultural Society and new Daffodils.—The President and Council of the Royal Horticultural Society have approved a recommendation of the Narcissus committee to the effect that "Five flowers of a Daffodil be submitted for an award of merit instead of eight as heretofore." The society's Regulation No. 25 for the standing committees is, therefore, amended accordingly.

Chelmsford Rose and Sweet Pea Show.—We have received a copy of the schedule of this exhibition, which is to be held at the Corn Exchange, Chelmsford, on Wednesday, July 5. A number of classes for Roses and Sweet Peas have been arranged, and the requirements of large and small growers have not been overlooked. The whole of the profits derived from the exhibition are to be devoted to the Chelmsford Hospital, and for this reason the committee should be well supported. The hon. secretary is Mr. Wilfred Marriage, Bishops Hall Mill, Chelmsford, and he will be pleased to send a copy of the schedule to anyone interested in the exhibition.

Essex County School of Horticulture. A copy of the prospectus of the above school for 1911–12 is just to hand. This was one of the first county horticultural schools founded in this country, at a time when the teaching of the principles and practices of horticulture was being only thought of by most county councils, and since then it has made steady headway and has done a vast amount of good work in the county. The prospectus before us shows that an earnest effort is being made to teach elementary horticulture on a broad and sound basis, and in such a manner that the students are made to think for themselves. Students resident in the county are admitted to the courses of instruction free, and a few from other counties are occasionally admitted for a small fee. Copies of the prospectus can, we presume, be obtained free from the Principal, County Laboratories, Chelmsford.

Royal Horticultural Society's medals for exhibits.—The following is a copy of the letter which has been sent by the Council to the chairmen of the Royal Horticultural Society's committees: "I am desired by the Council to recall to the minds of the members of the committees the high merit which should be represented by all the awards, certificates and medals of the society. It is probably to be expected that the number of awards should increase slightly year by year, but there exists a constant danger of their too lavish bestowal. It should, therefore, be a matter for constant watchfulness that the relative standards of merit be fully maintained, and that none of the medals, &c., should become depreciated by neglect in the use of the award ranking below it. If, for example, the use of the bronze medal is allowed to lapse, it can only result in the equivalent depreciation of the next higher awards, which in turn will have a tendency to fall out of use and depreciate those still higher, until at last little value would attach to even gold medals. The value attaching to each medal can only be maintained by maintaining the appropriate value of the medal ranking below it, and so on in descending scale. The value attaching to the society's bronze medal is, therefore, the primary factor of the value which attaches to the highest gold medal, and whatever depreciation the bronze medal suffers, the silver and gold will inevitably reflect in their turn. The Council, therefore, urge the committees to make greater use of the bronze medals, regarding them as very honourable awards suited to groups and collections which require something more than a mere 'vote of thanks.'"

Fruit express trains in the North.—The leading fruit-growers in the Blairgowrie district of Perthshire have just had a meeting with representatives of the Caledonian Railway Company, and have concluded satisfactory arrangements for the despatch of their fruit to the markets. These are much the same as they were last year, and include the despatch of special express fruit trains for the English traffic from Blairgowrie at 5 p.m. and 6.50 p.m., with another for the Scottish traffic at 7.30 p.m. In addition to this it has been arranged that special express trains for London can be had on the guarantee of a certain minimum quantity of fruit for the train. The company again has showed itself ready to meet the reasonable demands of the fruit-growers.

New conservatory for Dumfermline Park.—An event which drew a large assemblage of people took place in the Pittencrieff Park, Dunfermline, on May 16, when the new conservatory for the park was opened by Dr. Ross, chairman of the Carnegie Dunfermline Trust. The conservatory and other houses have been provided by this Trust, which has done, and is still doing, so much to improve the amenity of the town and assisting horticulture in the place to a marked degree. The range of houses is a very fine one, and replaces one which was too small and antiquated for a place like Pittencrieff Park. The conservatory has been well stocked with good plants, and it already has assumed a charming appearance. Mr. James Dunagan is the superintendent of this fine park.

The Victorian Order of Horticulture.—Just recently the Council of the Royal Horticultural Society have, at the instigation of some new members, issued to each holder of the Victoria Medal of Honour a very handsome diploma of the Order signed by Sir Trevor Lawrence, Bart., president, and the Rev. W. Wilks, secretary. That this diploma will be greatly prized by the recipients there can be no doubt, and will find a honoured position on the walls of their homes. It is hoped that the relatives of the thirty-six deceased members of the Order have also received diplomas as family recognition of the honour paid to their departed ones in earlier years. Only one defect in the diploma, if it is to be regarded as an historical document, seems to exist. These documents are dated from the present year, while many of the present members of the Order have been so since 1897. If the date of such membership could have been inserted in each diploma, its value as evidence of an historical fact would have been much enhanced. During the fourteen years which have elapsed since the Victorian Order was instituted, the medal has been granted by the Council to ninety-nine persons, of whom three were ladies. Of these Miss Willmott and Miss Jekyll are, happily, still with us; but Miss Ormerod, of entomological fame, has passed away. Of the members appointed in 1897 only thirty-one now remain. Of the Council, the President, Sir J. T. D. Llewelyn (vice-president), Sir Daniel Morris, Messrs. G. Bunyard, J. Hudson, W. Marshall, H. B. May and H. J. Veitch are members of the Order. No meeting of the members, so far as we are aware, has ever been held. Were such a gathering thought desirable, no more fitting opportunity for such a meeting could well be offered than at the holding of the great International Exhibition of 1912. But, apart from the Council of the Royal Horticultural Society, the Order has no officers of any description; hence the holding of occasional gatherings seems to be quite unprovided for.

South-Eastern Agricultural College. The half-yearly meeting of the governors of the South-Eastern Agricultural College was held at Wye on Tuesday, May 16, the Right Hon. Lord Ashcombe presiding. The Principal reported that 124 students were in residence, and that since the January meeting five old students had received appointments at home and abroad. Ten students entered for the Professional Associateship of the Surveyors' Institution in March, and the following nine were successful: W. Adam, W. B. Barling, R. Edwards, R. A. Hay, C. G. Kibler, F. W. Page-Roberts, L. H. Pyke, A. L. Tate and W. T. Trench. An increased grant from the Board of Agriculture and a grant for research work from the Development Commissioners were reported, and it was decided that it would be necessary to erect further temporary buildings for the accommodation of students until the formalities for the erection of permanent rooms were completed.

The 1910 Potato crop.—From the Returns of produce of crops in Great Britain just issued by the Board of Agriculture we learn officially that another favourable season for the production of Potatoes has to be recorded. The yield per acre in 1910 was 6·44 tons, as compared with 6·39 tons in 1909 and 6·97 tons in 1908. The area planted was, however, curtailed to the extent of 35,800 acres, so that the total crop of 3,477,139 tons was less by nearly 200,000 tons than in 1909. In England the crop was above the average in each division, except in the South-Eastern Counties; but in South Wales and North-East and North-West Scotland it was also rather lighter than usual. On the large Potato area of Lincolnshire the crop averaged 7·59 tons per acre, or nearly two tons above the ten-year average, while the North-Eastern Counties, as a whole, returned a yield one and a-half tons over the average. In the North-West of England the yield was only about one-third of a ton above the average, and the Eastern Counties gave an excess of over three-quarters of a ton. The good result in England was thus mainly due to the heavy crop realised in Lincolnshire.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Lysichitum camtschatense.—In your issue of the 6th inst. you have an article on Lysichitum camtschatense. I grow it in the open by a Sussex pond. I brought the roots from Vancouver, where it grows in any well-watered place. Mine bloomed two years ago, and I think may do so again this year. Other roots I should put nearer the water than these are. It must be quite hardy, as it bears a temperature down to 2° Fahr. in British Columbia, where it is commonly called Skunk Cabbage (not Weed) owing to the smell of the handsome flower.—DELTA, *Sussex.*



CTUS CINERARIA.

FELTHAM BEAUTY. BLUE.

ate Tulips.—To see these gorgeous spring ers in all their beauty it is not only needful to them growing, but in quantity. No flowers wn excel the Tulip for beauty of form, for gance, and for richness of colour and variety. up as cut flowers at exhibitions they may be active, but when seen bold, erect, in full sunlight, tly stirred by the passing breezes, they are eed glorious. It is when a visit is paid to a b farm, such as Messrs. Barr and Sons' at Long ton, that the full glory of the Tulip is seen. ver varieties show remarkable development in and length of stem. When these become ap they will be universally grown.—D.

Wild-flower competitions for school-ldren.—I fully agree with all that "E. M., mpshire," says in his reply to "A. D." on this ject. For twenty-five years I have been vely engaged in promoting the love of wild ers, and through them of others—cultivated ers—among children, and although as many as baskets and bouquets have been exhibited small village, I would challenge anyone to say hfully that the country-side had been denuded these precious gems in consequence. My erience has taught me that the children cherish wild flower plants and do not disturb their s, and I further learned, from observation, the plants, in certain places where most of flowers had been gathered, had strengthened r by year owing to the fact that they were ved of some of the flowers early in the season. one should stand in the way of the children ying the wild flowers in a proper way; it is when the destruction of the roots is com-ced that the time will have come for protests. is not exception taken to the work of farmers others who trim up their hedges and hedge-s soon after the hay is gathered in? They off the wild flowers wholesale, but the plants stronger the following year and flower again y.—B., *Hampshire.*

atriotic flower-beds.—It is by no ns improbable that, arising out of the Coro-on year, in many gardens one, if not more, he flower-beds will presently be planted with national colours—red, white and blue. Among r requests I have been invited to specify ts suited to work out a fairly clearly-defined l design forming a Union Jack. Such a design be furnished only with somewhat compact-grow-plants of the required colours, and such as will bloom over a fairly long season. I cannot for white anything better than the dwarf, pact Koniga or Alyssum, and for blue a good , compact-habited Lobelia. Something suit-of a red colour is more difficult; but I think pt well pegged and pinched, nothing would be er than a compact-growing scarlet Verbena, h can be obtained true from seed. However, e readers may be prepared with even better t suggestions. With greenhouse or pot plants taller character, Paul Crampel Geranium, gined with white Petunia and edged with blue lia, may suit. So, too, may a base of Souvenir harles Turner Ivy-leaved Geranium, dotted with white Swainsonas and either tall or standard bago capensis or Heliotrope President eld. White and blue Violas mixed as a carpet, of which come red Pentstemons or Snap-ons, would be a cheap arrangement, as also d be annuals, such as a base of pure white tias, from out of which rose small clumps of blue Larkspurs and red Clarkias. Certainly ossible combinations of these three colours flowers and annuals alone are many, while rpet of Phacelia campanularia, dotted with e Rocket Candytuft and Linum rubrum, d be charming for some time.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

SUMMER BEDDING.—All bedding plants must soon be ready for planting, therefore they must be thoroughly hardened off and inured to thorough exposure to the sun's rays before being put out in the beds. Care must be exercised in the hardening of later plants which have been growing in warm, moist houses. They must be placed in frames for a few days and shaded during the hottest part of the day; then expose them to outdoor conditions by degrees. Strict attention must be paid to the watering of all bedding plants at this period, and it is very important that they be thoroughly soaked before planting them out. They must also be frequently watered till they are established in the ground.

The Mixed Border.—There is a great variety of plants suitable for the making up of the mixed border, and if they are placed out judiciously, this forms one of the most attractive features in the garden, and is a pleasing contrast to the beds of more formal design. Apart from the herbaceous perennial plants suitable for this purpose are Dahlias, Pentstemons, early-flowering Chrysanthemums, Helianthus, Nemesias, Salpiglossis, Zinnias, Asters, Stocks, Hollyhocks, Godetias, Antirrhinums, Cosmos, Malope, Nigellas, Phlox Drummondii, Calliopsis, Larkspurs, Petunias, Nicotianas, Gladioli and Liliums. Of course, there are many others which may be effectively employed in the mixed border, but the above-named plants will give a long and varied show of beautiful flowers.

Ghent and Mollis Azaleas.—At the present time beds of these are making a gorgeous show outdoors. Where the natural soil is suitable for their culture, they should be planted extensively in the shrubberies, or in masses on the grass within sight of the dwelling. When in flower there is nothing to equal the brilliant display they make. They are also invaluable for table and other decorative work. After they have flowered remove the dead blooms, and should the plants be in need of stimulants, water with diluted liquid manure. They require a compost of peat and leaves in which to grow. Plants growing in pots should be placed outdoors to ripen their growths. Plunge the pots in ashes to prevent the soil becoming dry too quickly.

Rose Garden.

Roses.—Vigorous measures must be taken to destroy aphis before the flowers begin to expand. This pest will, no doubt, be plentiful everywhere after the cold weather which was experienced during the greater part of April. Syringe the trees late in the afternoon with a strong solution of soft soap at intervals of two or three days. A little sulphur may be added as a preventive of mildew. On light soils it is advisable to mulch the beds with well-rotted farmyard manure.

Climbing Roses Under Glass.—When these have flowered, pruning must be attended to. Cut hard back all the old flowering wood, thus making room for young growth. This should be trained over the trellis about 6 inches apart. Remove a portion of the old soil from the surface of the border and top-dress with loam and crushed bones. Later on, when growth is active, water the trees with diluted liquid manure. Give the trees a syringing with clear water in the afternoon and fumigate occasionally to keep down aphis.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

The earliest plants of Celery which were pricked out in the usual way and have been carefully attended to should now be ready for planting out in the trenches, these being previously prepared and enriched with well-decayed manure. The plants should be lifted with good balls of soil, and after planting should receive a good soaking of clear water if the soil is at all dry. It may also be found necessary to afford slight shade for a few days to prevent them from flagging if the sun is hot. This can be effected by means of a few Spruce branches or Pea stakes, which, when the young plants get established, can be lifted and utilised on the nearest line of Peas requiring stakes. Greens and other spring-sown Brassicas will now be ready for planting out. If the weather should prove hot and dry, a little water to each plant after planting will keep it all right, or the roots may be puddled in a mixture of soil, soot and water.

Vegetable Marrows.—In the North these are all the better if given a start in frames on a slight hot-bed. If planted now they will give a good supply in autumn. When the plants have made a good start and are growing freely, the lights and frames may be entirely removed and the plants allowed to ramble in all directions. They may be also grown successfully if a barrow-load of manure is placed at intervals in the kitchen garden with a little soil on the top and one plant placed on each mound, over which place a bell-glass or hand-light to give them a start.

Growing Crops.—Keep the hoe working freely on all favourable occasions among growing crops, such as Carrots, Onions, Turnips, &c., and thin out the rows as soon as the seedlings are large enough to handle. Sow for succession Peas, Turnips, Lettuces and Radishes. Sow also a few more lines of Broad Beans; these should be given plenty of room to ensure the pods setting thickly. The earliest-sown crop should have the tops pinched out when the plants are between 2 feet and 3 feet high.

Flower Garden.

Summer Bedding.—In most gardens an effort is made previous to the actual time for starting bedding-out operations to have everything in readiness, so that the planting can be carried out with the least possible delay. Having got the kitchen garden and other work well advanced, the week preceding the time for planting out may be devoted to the preparation of the beds and borders. Where the beds are formed on grass, this should first be mowed and the edges trimmed; and presuming that the beds have been dug and manured earlier in the year, they should now be loosened with a digging-fork, breaking up the soil into fine particles and smoothing over with the rake. Where spring-flowering plants have been used, it is usually necessary to leave these till the last moment before replanting the beds with their summer occupants. Bulbs of Tulips and Hyacinths, while not suitable for planting in the beds a second year, do well enough for forcing to supply cut flowers if properly ripened off. Stakes for Dahlias and other plants requiring support should also be placed in position now, and as soon as all is ready planting may commence with the hardier subjects; but if the weather proves cold at the usual date for bedding out, it is better to wait another week than commit the plants that have been in most cases reared under glass to a cold and uncongenial soil.

Thomas Wilson.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE ROSE GARDEN.

RAISING NEW SEEDLING ROSES.

ONE of the most interesting hobbies that the Rose amateur can have is the raising of new seedling Roses. The author has raised many new Roses for his own amusement, though none, so far, warrants being placed in commerce to compete with those already obtainable. Yet a child of your own is always more acceptable than a superior child of someone else. There are few articles necessary; in fact, common household articles will answer quite well—a small pair of fine scissors; one or two tweezers, such as those used by watchmakers; half-a-dozen small, soft camel-hair brushes of varying sizes; some small tubes of green glass to contain pollen; some very small boxes to receive the pollen until it has lost its humidity; a pen-knife; a small phial containing a few drops of water sweetened with honey; an ordinary hand magnifying-glass; a cheap microscope, if one's interest is sufficient for the few shillings necessary; and one or two small toothpicks.

The mother Rose should receive the first consideration. In order to prevent self-pollination the stamens should be removed early before the pollen is ripe. On cutting the filaments (the stems of the stamens) it is always advisable to hold the Rose in a drooping position, so as to avoid any pollen falling on the flower. In the case of the centre stamens being difficult to remove, first raise them, and then nip them off with the tweezers. In nearly all cases the pollen is not ripe until after the flower is full-blown; but in a few Roses the pollen is ripe while the Rose is still a bud. Such can be opened for the purpose. In the latter case it is advisable to make sure no pollen grains remain on the stigma (which is in the centre of the flower) by closely examining the bloom by means of the pocket lens and removing such pollen very carefully.

The female flower is the one that is to finally bear the heps. It is often necessary to remove some of the petals, so as to make the work of hybridisation easier. In such cases do not injure the female organs in any way, otherwise there may be disappointment. When the process is ended it is absolutely necessary to cover the bloom with a small muslin bag to keep bees and other insects from interfering with the flower.

The petals of the male flower, or such as are necessary, should be removed shortly after daybreak; but it is advisable to allow the pollen to remain until midday if it is to be used at once. The pollen is applied to the stigma by simply touching it with the brush charged with the pollen. The brush is charged by simply passing it over the male organs of the pollen parent. If there is a quantity to do, it is more expeditious if the anthers (containing the pollen) of the male Rose are cut, thus saving the pollen before actual dehiscence. It is then placed for about twenty-four hours in one of the small boxes, first labelling the box with the name of the Rose to which the pollen belongs. By that time the pollen will have lost its humidity, and is then sealed up in one of the small glass tubes. It will thus keep for at least eight days, probably considerably longer. The advantage of thus harvesting the pollen is that, as the flowers do not open at the same time, probably the tree which we have chosen as the seed parent possesses no Roses in a fit condition to receive the pollen.

The usual method of sowing the seed is to place the heps in sand during winter and spring, and then to clear the seeds from the rubbish. It is, however, much simpler to leave the heps hanging on the trees until the end of the year, and then beat out the seeds and sow them. The soil should be light and sandy, consisting of friable loam, leaf-mould and thoroughly-decayed manure. The seeds should be sown in pans or boxes in a cold frame or pit, allowing the sun to shine on the pans for an hour or two daily; indeed, the hardier Roses can have the pans plunged in an east or west border. March is a very convenient time to sow, and the seeds should be 1 inch deep. Some will appear in June, but many take a year, and even two years, to germinate.

When the plants have two or three leaves, they should be carefully raised and transferred to small pots, taking great care not to interfere with the soil in the seed-box more than is absolutely necessary. If grown in a cold greenhouse, they can be shifted as necessary until they reach 7-inch or 9-inch pots. Some flower the first year; others, again, not until the second year. The flowers at first are usually only semi-double; but if the colour is satisfactory, such can be budded in the ordinary way, and will probably make a charming addition to England's flower.

As many seedling Roses damp off, it is advisable to take one or two of the most plump buds and bud them on Briar. Flowers can then be looked for at a shorter date. In favour of this perhaps the author may be allowed to give one of his actual experiences. He obtained a dwarf wichuraiana Rose, somewhat like a glorified Leonie Lamesch; but owing to the heavy clay soil and the wet winters Bristol enjoys, the plant died. A few budded plants would have prevented this loss.

In the British Isles more success is ensured under glass than in the open. At Lyons the autumns are sunny and dry, and, consequently, the heps ripen better than with us. In any case, it is advisable, unless the reader has glass, to leave the Teas, Chinas and Noisettes severely alone, and try his hand on the very hardy Roses only.

Systematic hybridisation can only be effected by being in a position to prove the ancestry of those Roses with which we are experimenting. Some Roses, such as Killarney, should give way to others, first, because, not knowing the parentage, we are working in the dark; and, secondly, because in most seasons it is so terribly subject to mildew. Foreign and Colonial growers take such interest in the crossing of Roses that they make no secret of such results.

Bristol. R. DANIEL.



THE NEW HYBRID TEA ROSE MRS. GEORGE SHAWYER. (*Much reduced.*)

ROSE MRS. GEORGE SHAWYER.

THIS is a new addition to the rapidly-increasing host of Hybrid Tea Roses, and, judging by its reception when shown before the Royal Horticultural Society a fortnight ago, it is destined to occupy a foremost position in the Rose world. As will be seen by the accompanying illustration, the flowers are of that pointed form so much admired in these days, and the colour may be best described as glowing pink. It possesses very erect, stout stems, and should prove a good outdoor Rose. It was shown by Messrs. Lowe and Shawyer, Uxbridge, and received an award of merit.

TWO GOOD NEW ROSES.

THE modern Rose enthusiast must possess a good stock of patience, for he may see a grand novelty exhibited, but he will of necessity have to wait perhaps one or two years before he can possess it. Last autumn Messrs. S. McGredy and Son exhibited a Rose which I venture to predict will be in every garden within a year or two after it is distributed. This variety was Mrs. Muir Mackean. In my opinion there is nothing like it among all our numerous Hybrid Teas. There is a combination, as it were, of the exquisite shades of Farbenkönigin and George C. Waud; and even though we may know these two Roses, this can give no adequate idea of the marvellous colouring of Mrs. Muir Mackean. I am certain it will take a high position among our show Roses. It is one of those Roses that arrest attention, even though surrounded by ever so many beauties, the more so as it carries its blooms on good stout stems, and as they are borne mostly singly, no disbudding

eded. It is such Roses as this that we want days. There are far too many introduced have a close resemblance to some variety ly in commerce, and even though such Roses be a slight improvement upon the older Rose, tter is not readily ousted from popular favour. rs. Muir Mackean we have a Rose so won- lly distinct that its popularity is assured. other beauty from the same raisers is Mrs. Hammond. I am delighted to learn of its bution in June next. Those who love that ning variety Lady Roberts (and who does not ?) vant this novelty, which received the gold l last season at Salisbury. To obtain such a ly-built flower of this lovely amber and ot colouring is surely a triumph for a firm as in such a short time obtained most remark- successes. To win eight gold medals in three out of the fifteen awarded speaks nes for the strain of seedlings at down, and I shall watch with interest the further introduc- of Messrs. S. McGredy and Son, heir novelties possess not only endour of bloom, but the vigorous th is so remarkable. P.

E GREENHOUSE.

MELLIAS AND THEIR CULTIVATION.

N the days when such of us as are now approaching the sere and yellow stage were at school, Camellias were ex- ceedingly popular in most gardens. Then came a com- ive lull; but within the last years Camellias show signs of ning at least some of their lost d. There is, however, this differ- that the Camellias favoured ur forefathers consisted for the part of those whose blossoms of a hard, formal shape, whereas the varieties with single and - double flowers are greatly red.

is change is only following the al trend of fashion, for at the nt time heavy formal blossoms lost favour with the public, taste being for subjects that of a light and informal arrange- In the decoration of the r-table this change from bygone is exceedingly marked, and quite ch so in the hand-bouquets, as of forty to fifty years ago as formal as a pincushion. A perfectly- d Camellia then formed a favourite centre, perhaps towards the outer edge, half-a-dozen r blooms equidistant from each other.

er this digression a return to the Camellias day will, I hope, be allowed. That they are grown than formerly is borne out by the er that have this year put in an appearance etings of the Royal Horticultural Society. e last day of January a group of neat little plants, each carrying a number of blossoms, be seen, and a fortnight later many larger les and boxes of cut flowers were shown. meetings were crowded ones, and it was easy that admirers of the single and semi-double were in a great majority.

rs. W. Paul and Sons have raised several arieties of this class, two at least of which have been given awards of merit; they are Jupiter (rosy red) and Mercury (rich crimson). Among others raised by the same firm may be especially mentioned Apollo (bright red, with a central ring of rich yellow stamens), Ceres (pink, semi-double), Mars (crimson), Minerva (deep rose), Novelty (white, splashed rose), Vesta (bright red, semi-double) and Waltham Glory (deep scarlet).

Of all single kinds the one that appeals most strongly to me is alba simplex, a large flower, absolutely pure white in tint, except the central tuft of yellow stamens. Camellias can be grown in the garden in many different ways, though perhaps the most striking of all is when they are planted out in prepared beds in a large conservatory and allowed to assume their natural character of great bushes or small trees. They may also be grown in pots or tubs, and this mode of culture allows of the plants being stood out of doors during the summer.

Again, for clothing the back wall of a greenhouse it is questionable if anything surpasses the Camellia, as its rich green leaves are retained at all seasons, and the flowers form an additional feature. One objection sometimes urged against it for this purpose is that, compared with many subjects, the rate of growth is but slow, which is quite correct; but, on the other hand, a wall once covered with a Camellia is always beautiful.

As huge bushes Camellias are seen to very great advantage in the Temperate House at Kew, and somewhat lesser examples, equally fine, contribute towards the embellishment of the Greenhouse No. 4. The different garden varieties of Camellia appear to be nearly all forms of the Japanese C. japonica, though a few obtained from the gardens of Japan may be hybrids between that species and the small-growing C. Sasanqua, itself a very pretty shrub, of which there are two forms, one with pink and the other with white blossoms. The last to mention is, in the opinion of many, the grandest of all Camellias. This is the Chinese C. reticulata, of taller and more erect growth than C. japonica, and with dull green instead of shining leaves. The flowers are large, semi-double, and with waved petals of a bright rosy red colour. A large specimen of this in the Temperate House at Kew forms, when in full flower, one of the annual features.

Camellias are far hardier than is generally supposed, and good examples may often be met with out of doors. I do not mean in particularly favoured spots in the South and West of England; but even at Kew, which is none too favourably situated for tender plants, a number of large specimens have stood out for years, and flower annually in the wood near the Bamboo garden. The gardens of Lady Tress Barry, St. Leonard's Hill, Windsor, are also noted for their collection of Camellias out of doors, and last spring an extensive exhibit of cut flowers was shown by Lady Barry, all from the open ground. One of the best for outdoor culture is Donckelaarii, a very old variety with semi-double crimson flowers, which are sometimes marked with white. H. P.



THREE INTERESTING CYPRIPEDIUMS: C. THALIA AND ITS PARENTS.
C. Chantinii *C. Thalia.* *C. Baron Schröder.*

CYPRIPEDIUM THALIA AND ITS PARENTS.

This is a beautiful hybrid, obtained from C insigne Chantinii and C. Baron Schröder, which is also of hybrid origin; and in working out its ancestry we find that C. insigne occurs twice, while

C. fairrieanum, C. barbatum and C. villosum are also present in a lesser degree. It was raised by Messrs. J. Veitch and Sons of Chelsea, and first exhibited before the Royal Horticultural Society in November, 1902, when it gained an award of merit. C. Thalia has an orbicular white dorsal sepal, lined and spotted with dark purple, and the petals and pouch are purplish brown. Until the reintroduction of the famous C. fairrieanum this fine Orchid realised high prices; but now the best forms, such as C. punctatum and C. Mrs. Francis Wellesley, can be obtained for a moderate sum. C. insigne Chantinii is a charming variety and occupies a high position, for the purple spots are very clearly defined upon a white ground. It has been extensively employed for hybridising, and C. Thalia is one of the best of its progeny. C. Baron Schröder, an attractive variety, also raised by Messrs. Veitch, was flowered for the first time in November, 1896, when it was shown before the Royal Horticultural Society and received a first-class certificate. It has been described as an exquisite little flower with a heavily-spotted dorsal sepal, while the brownish petals show the drooping tendency so characteristic of its pollen parent, viz., C. fairrieanum. The mother plant was C. œnanthum superbum, a hybrid obtained by inter-crossing C. harrisianum (C. villosum × C. barbatum) and C. insigne var. Maulei, so the following species, C. barbatum, C. villosum, C. insigne and C. fairrieanum, constitute the parentage of this interesting subject. In showing the parents with the hybrid our readers will be able to see at a glance how intermediate it is and to trace various characters in the hybrid which are also prominent in the parents, while the drooping petals of its grandparent, C. fairrieanum, are also apparent. SENTINEL.

FRUIT GARDEN.

VINES AND PEACH TREES IN THE SAME HOUSE.

READERS who have Vines and Peaches growing in the same house may look forward to the proper ripening of the respective crops if they have been successfully treated up to the present time. While the Peaches are stoning—that is, during the period that the stones in them are hardening—there is always some danger from the necessity of keeping the Vines in a rather high temperature and close, moist atmosphere. The Peaches may lose many fruits owing to these atmospheric conditions, as it is advisable to refrain from unduly exciting the growth at that critical time. Now, however, the close, moist atmosphere will be beneficial to both the Vines and Peaches until the ripening of the fruits of the latter commences. Probably some readers will have Black Hamburgh, Foster's Seedling, Buckland Sweetwater or Madresfield Court Vines growing in the same structure as the Peach trees; if so, all the fruits will be colouring at the same time, and so the general treatment will be suitable for both. A rather drier atmosphere must be maintained, and more air admitted, especially at night. The pipes should be warmed on dull days and every night in cool, rainy weather; but it is not necessary to use any artificial heat when the weather is dry, warm and calm. For the first time some front ventilation should be given; and when the fruits commence to colour and ripen, a little front air all night, too, will be most beneficial. Before that stage comes, however, we have to assist the trees and Vines to swell up their fruits.



THE ROCK GARDEN AT SOUTH LODGE, HORSHAM, IN EARLY SPRING.

It does not matter how well the borders have been attended to in the winter-time, some stimulating food must be applied while the fruits are swelling. Vine manure as advertised in THE GARDEN may be applied according to the directions given with it. Liquid manure, made by soaking a peck of farmyard manure, or sheep, goat or horse manure, in a tub or tank containing twenty gallons of water for two days, is very beneficial if used at the rate of a gallon to four gallons of clear water. All surplus shoots must be duly pinched out and the Peaches exposed to the light and sunshine. AVON.

COLOURED PLATE.

PLATE 1426.

CINERARIA FELTHAM BEAUTY.

CONSIDERING the wide range of colour and the ease with which Cinerarias may be grown, it is not at all surprising that these showy flowers should maintain their prominent position as favourite plants for the greenhouse and conservatory. There are many strains of Cinerarias now in cultivation, and that known as Feltham Beauty possesses certain advantages over many others. The flowers are of the stellata type and profusely borne in loose, lightly-branched heads of brilliant colours. There are at least six distinct shades of colour in the Feltham Beauty strain, viz., white, pink, light blue, deep blue, carmine and maroon purple. The special merit of the strain, in our opinion, lies in the fact that the plants are of compact habit and uniform height, not exceeding 2 feet, thus forming a most agreeable contrast to the tall, overgrown specimens too often seen among the stellata hybrids.

The strain has proved an acquisition not only as greenhouse and conservatory subjects, but also for table decoration as pot plants, a useful phase for which the shapely plants are particularly adapted. So far as colour is concerned, we know of no other strain which gives the clear blue shade as represented in the coloured plate. This is a highly-developed colour, which is all too rare among greenhouse plants. All of the varieties seed quite freely, and their cultivation from the time of sowing until the time of flowering is quite simple. The strain takes its name from the Feltham nurseries of Messrs. James Veitch and Sons, where these beautiful forms originated a few years ago.

There are just a few salient points in the cultivation of the Cineraria which should not be overlooked. In the first place, it is a common error to sow seeds too early in the year. The correct time to sow is during May and June. Cinerarias do not require much heat, for this reason they should be grown by everyone possessing a greenhouse where frost is excluded during winter. Named sorts are usually propagated by division of the roots, but seedlings are more vigorous, and the ultimate results, as a rule, are in every way satisfactory. Seeds sown at this season would produce plants which would commence to flower next autumn; for a spring display seed should be sown in July and August. Seed is best sown in pans and placed in a warm greenhouse. As soon as the seedlings can be handled, they should be pricked off, and in after-treatment the aim should be to ensure as hard a growth as possible. No plant resents being coddled in a warm and badly-ventilated greenhouse more than the Cineraria, and it is always well to remember that sturdy plants with leaves of medium size produce the finest flowers.

THE TEMPLE SHOW.

AS usual, the great spring exhibition of the Royal Horticultural Society, held in the Inner Temple Gardens by the courtesy of the Benchers on Tuesday, Wednesday and Thursday of his week, was a great success, and manifested in an unmistakable manner the reat and rapid strides that horticulture s making in this country. During the norning of the opening day the King and Queen visited the exhibition, thus showing n a practical manner the interest Their Majesties take in all phases of British orticulture. Generally speaking, the uality of the flowers shown was well up o the average, and a number of excellent ovelties were displayed. To the secreary of the society, the Rev. W. Wilks; o the superintendent of the exhibition, Mr. . T. Wright; and to Mr. Frank Reader, who has been connected with the society or twenty-one years, and who never seems o be able to do enough for the Press, we vish to tender thanks for their kind ssistance in enabling us to report the how.

HARDY PLANTS.

Messrs. R. W. Wallace and Co., Colchester, rranged a delightful exhibit of the best hardy owering plants, bulbous and otherwise. Of the ormer, Lilies were a dominant feature, such as olchicus, testaceum, elegans Orange Queen, rownii, Martagon album, Marhan, speciosum, nd the new and dainty Golden Gleam being proinently displayed. Eremuri, Calochorti, Ixias, paraxis, Irises of many kinds, with Tulips and ther things, were seen in telling groups. In the pen the firm displayed a good exhibit of rockork, arranging it with rare taste and skill.

Messrs. R. H. Bath and Co., Limited, Wisbech, ad a large display of Darwin and other Tulips, of hich King Harold, Clara Butt, Cynthia, Mrs. loon, Golden Spire, Mrs. Farncombe Sanders, ala Beauty and Bleu Amiable were very fine. yrethrums and the early Pæonies were also well hown.

The Misses Hopkins, Shepperton-on-Thames, displayed a table of rockwork, arranging in profusion roups of Columbines, Primulas, Meconopsis ntegrifolia, Veronica diosmæfolia, Saxifraga ranulata plena, Incarvilleas, alpine Phloxes nd others. Water pools set with aquatics were lso delightfully arranged, and left little to be esired.

Messrs. Fred Smith and Co., Woodbridge, owed Columbines, Lupins, Trollius and other ardy flowers.

Double St. Brigid and other Anemones in ch and varied colouring came from Messrs. eamsbottom and Co., Geashill, King's County, eland.

Messrs. Storrie and Storrie, Glencarse, N.B., owed fine Auriculas and Polyanthuses, the latter ch in gold and yellow shades, also in reds.

Mr. G. W. Miller, Wisbech, showed Pyrethrum ueen Mary, a pretty pink-flowered variety on ng and stout stems.

Messrs. Harkness and Sons, Bedale, Yorks, owed a fine group of new Trollius, of which His Majesty, Orange Crest, Elsie Harkness, Derby Day and Northern Glory were exceptionally meritorious varieties.

Messrs. Gibson and Co., Bedale, Yorks, had a display of Poppies, Trollius, early Pæonies, Columbines, Heucheras and Lilies in variety.

Messrs. Seagrave and Co., Sheffield, exhibited a small though neat and well-arranged group of Violas.

Messrs. Rich and Co., Bath, exhibited Tulips, Camassia, Daisies, Squills and other hardy flowers in variety.

Messrs. W. H. Rogers and Sons, Limited, Southampton, had a neat rockery exhibit, on which were set choice alpine and miniature shrubs, Androsaces, Phloxes, Fabiana imbricata and Vaccinium pennsylvanicum being particularly noted.

Mr. G. Reuthe, Keston, Kent, had a delightfully interesting gathering of alpines and shrubs, the former including Haberlea rhodopensis, Saxifraga brunoniana, Cypripedium macranthum, Anemone sulphurea, Daphne Cneorum, Ourisia coccinea and others. Of the latter, Enkianthus campanulatus, with bell-shaped flowers; Daphne Verloti, very charming, pink; and Ledum buxifolium, with small heads of pink blossoms, were all delightful.

Messrs. Lilley, Guernsey, had a charming group of Cape and other bulbs, of which Sprekelia formosissima, Iris Pavonia, Ornithogalum arabicum, Ixias and Sparaxis were very pretty. Pæonia witmanniana was also well shown.

Messrs. Sutton and Sons, Reading, showed a handsome group of the Darwin Tulips, of which The Fawn, Massenet, Lucifer (orange), Wilberforce (chestnut bronze, a grand Tulip), Prince of Orange, Caledonia (brightest of the orange shades), Suzon, Bronze Queen, Zulu (very dark), and Golden Goblet were particularly good and very fine.

Messrs. Barr and Sons, Covent Garden, W.C., displayed a gorgeous bank of Tulips, Darwin, Cottage, Parrot and the English florists' varieties being included in a remarkably good representative gathering. Of Darwins, Clara Butt, La Tulipe Noir (almost black), Suzon, Duchess of Westminster, Sophrosyne (very bold and handsome in rose and white), and Chestnut Bronze were all very fine. Early Gladioli, Columbines, Irises, Pyrethrums, Pæony species and other plants were excellently displayed. In a small outer tent the firm displayed an exhibit of rockwork, arranging choice alpine, bog and moisture-loving plants appropriately and well in good representative gatherings or groups.

Messrs. J. Cheal and Sons, Crawley, Sussex, set up a nicely-arranged exhibit of rockwork, planting it tastefully with the choicest alpines, as Phloxes, Dianthi, Primulas, alpine Violas, Saxifrages and the like. Edraianthus serpyllifolium was very charmingly flowered. A capital assortment of Lilacs in single and double flowered sorts was also displayed.

Messrs. Kelway and Sons, Langport, showed single and double flowered Pæonies in many charming and fascinating shades of colour, also Pyrethrums in variety.

Messrs. Carter Page and Co., London Wall, displayed annuals in variety and Tufted Pansies in pans.

Baker's, Wolverhampton, had one of the choicest displays in the show, everything delightfully fresh-looking and good. A few notable things were Incarvillea grandiflora, hardy Cypripediums, double cambricum Poppies, Primula lichiagensis (rose crimson shade), P. bulleyana, P. pulverulenta, Sarracenias, with many of the choicest alpines on rockwork. Primula Lissadell Hybrid was a conspicuously beautiful plant, rich in colour and free in flowering.

Messrs. W. Artindale and Son, Sheffield, had a lovely lot of Pansies and Violas, the whole very fresh-looking.

Mr. A. J. Harwood, St. Peter's Nursery, Colchester, had many showy Primulas, P. japonica and P. pulverulenta chiefly, also Irises and Lupins.

Messrs. Dobbie and Co., Edinburgh, staged Violas and Columbines in delightful array, Moseley Perfection and Louie Granger of the former being very fine and distinct.

Tulips from Messrs. Alex. Dickson and Sons, Newtownards, included Minister Roell, Gorgeous, Psyche, Sunset, Clara Butt, Mrs. Farncombe Sanders, Dom Pedro (old bronze, very fine), and N. F. Barnes (crimson), these being among the best in a very fine lot.

Bees, Limited, Liverpool, showed Primulas in variety, Celmisia spectabilis, Onosma echioides and Aquilegia cærulea on a nicely-arranged rockwork.

Messrs. J. Backhouse and Son, Limited, York, had a rockery exhibit with many charming plants, as Nertera, Haberlea, hardy Lady's Slipper, Ledum buxifolium, Primulas, Ramondia, a wealth of Edraianthus, Oxalis enneaphylla and handsome groups of Trilliums, Uvularia and other choice plants in variety.

Mr. James Box, Lindfield, Sussex, had a nice group of hardy things, of which Violas, Anemone Rouge Ponceau (fine scarlet), Trollius, Eremuri, Columbines, Tree Pæonies (very fine), Primulas in variety and Incarvilleas were shown.

Messrs. R. Gill and Sons, Penryn and Falmouth, had a fine exhibit of choice shrubs in flower, of which Rhododendron Keysii, R. Roylei, Embothrium coccineum, Crinodendron Hookeri, Rhododendron Aucklandii, R. Falconeri and R. Gill's Goliath (a lovely shade of pink) were most charming.

Mr. Amos Perry, Hardy Plant Farms, Enfield, had a most extensive arrangement of hardy flowers, a huge bank teeming with the choicest of these plants. Poppies, Eremuri, Tree and other Pæonies, Heucheras, Globe Flowers, Aubrietias, Saxifrages, Lilies and the like were all noted in a most imposing array of plants. Most charming of all was a colony of North American plants, Viola species, as pubescens, lanceolata, pedata, cuculata, elatior, septentrionale, Trollius, Sarracenias, Dodecatheons, Galax and the like, which, with Ramondias in pale and deep mauve, hybrid Regelio-cyclus and other Irises and Primulas, made up a most sumptuous feast of the wealth and beauty hardy plants contain to-day.

Mr. R. C. Notcutt, Woodbridge, Suffolk, had a good group, which included Heucheras, Eremuri, Pyrethrums, Globe Flowers, Columbines and the like. Iris tolmeana was also charming.

Messrs. Whitelegg and Page, Chislehurst, Kent, had a nice exhibit of rockwork, arranging Primulas, Aubrietias, Saxifrages, Columbines and other good plants thereon. Geum Mrs. J. Bradshaw was particularly fine, also Primula Unique, of which a fine colony of plants was shown.

Messrs. Jackman and Sons, Woking, had a capital group of hardy plants, showing Primulas and hardy Cypripediums, Trilliums, Aubrietias, Saxifrages, Heucheras, Trollius and other things

in variety. Lychnis Lagascæ and Daphne Cneorum, near akin in colour, were also noted.

Mr. Maurice Prichard, Christchurch, Hants, staged a very handsome group of hardy perennials in the best varieties, of which Eremuri, single and double Pyrethrums, Ranunculus aconitifolius plenus, Poppies, Aquilegia Stuartii (a most fascinating group), Onosma echioides, Hyacinthus amethystinus, Cushion Irises, Columbines and Pæonies were among those noted in an excellent lot.

Messrs. G. Bunyard and Co., Maidstone, had a striking group of hardy flowers, Eremuri, Lupins, Poppies, Geums, Heucheras and Globe Flowers being well displayed. Irises were of infinite beauty and interest, the uncommon I. filifera, approximating to I. tingitana in colour, being splendidly shown. Hardy Cypripediums, Æthionema grandiflora, Dianthus Atkinsonii and Pentstemon Menziesii (a lovely bush 18 inches across, covered with lilac flowers) were also included. The Darwin, Parrot and other Tulips from this firm were excellent.

Messrs. G. and A. Clark, Dover, had showy masses of Tulips, Globe Flowers, Heucheras, single Pyrethrums, Iris susiana, I. tectorum album and others in a group rich with a margin of Polyanthuses of many shades. The arrangement of alpines from this firm was also very tastefully done, and contained many choice and good plants, Orchises, Saxifrages, Primulas, Violas and Ramondias being freely grouped.

Messrs. Hogg and Robertson staged a rich display of Tulips in great variety.

Mr. B. S. Ladhams, Shirley, Southampton, had a goodly assortment of hardy flowers.

Messrs. Jefferies and Sons, Cirencester, brought many fine Darwin and Cottage Tulips, which afforded quite a wealth of colour beauty.

Messrs. Gunn and Sons, Olton, Birmingham, had a lovely bank of Viola cornuta purpurea, and a smaller lot of the white-flowered variety, Viola Moseley Perfection, was very finely displayed among many more.

Mr. H. Hemsley, Crawley, had a pretty alpine and rockery exhibit, arranging Ramondias, Dianthi, Achillea, Viola bosniaca, Cornus canadensis, Phloxes, Primulas and many others to advantage, together with a bank of Myosotis alpestris Marie Raphael, which is prettily striped with white.

Trollius in great variety, also Tulips, Gentians and Anemone sulphurea, came from Messrs. J. Cocker and Sons, nurserymen, Aberdeen. Saxifraga peltata was also good.

Mr. W. J. Godfrey, Exmouth, Devon, brought a capital group of Poppies in variety.

Mr. Howard H. Crane, Highgate, N., had a lovely lot of Violas and Violettas admirably displayed in sand and water in pans. Freshness, beauty and distinctness marked the whole. Grace J Reynolds, Mrs. Eric Smith (yellow), Virgin White, Sultan, Miss E. M. Cann and May (yellow), with Peace (white), were among the finer of the Violas; while Rock (yellow), Proserpine (shaded lilac), Vestal, Purity, Butterfly (yellow) and Miss G. Jekyll were among the most charming in the Violettas, which were greatly admired.

Messrs. Egget and Son, Thames Ditton, had a small rockery exhibit with Ferns and other plants.

Mr. M. Prichard, Christchurch, Hants, had a most sumptuous rock garden exhibit in the open, arranging Daphne, Sedum and Saxifrages in endless variety, Cobweb Houseleek, Incarvillea, Scutellaria indica japonica, Ourisia coccinea, hardy Cypripediums, alpine Columbines, choice Ferns and Primulas in delightful profusion.

The Craven Nursery, Clapham, Lancaster (Mr. Farrer), displayed an alpine moraine delightfully planted and arranged, Androsace mingling with alpine Forget-me-not, Dianthus, alpine Poppy, Morisia, Ranunculus and Saxifrage; while in large groups Primula sikkimensis, Aquilegia Stuartii and other delightful plants appeared. Daphne rupestris, Haberlea rhodopensis alba and Ramondia Nataliæ alba were among the choicest of these plants, while Edraianthus serpyllifolium and alpine Primulas were charming to behold.

M. Correvon, Geneva, Switzerland, had a most interesting lot of Saxifrages and alpine Orchises in charming variety. Campanula Aucheri is a very pretty plant and of a good clear blue.

Mr. R. Prichard, West Moors, Wimborne, also had an interesting lot of alpines in the open, Gentiana verna, Ourisia coccinea, Houstonia cærulea, Pentstemon cyananthus (of a dark purple colour) and Aquilegia Stuartii being among the best.

Mr. Clarence Elliott, Six Hills Nursery, Stevenage, had a very fine lot of alpine plants, comprising Aubrietias, Saxifrages, Iris cristata and many others. A large colony of the pink-flowering Daphne Cneorum came in for general admiration.

Messrs. R. and G. Cuthbert, Southgate, had a brilliant display of May-flowering Tulips, which looked quite a picture, out of doors. Prominence was given to the Darwin Tulip Mrs. Farncombe Sanders and the yellow May-flowering Mrs. Moon. The very dark La Tulip Noir attracted much attention.

A miniature rock garden was neatly constructed by the Guildford Hardy Plant Nursery. In the background were many conifers and Maples, while the foreground was occupied with Saxifrages, Ledum Lyonii, Edelweiss, Oxalis enneaphylla and Potentilla dubia.

Messrs. T. S. Ware, Limited, Feltham, had a fascinating rock garden exhibit arranged with substantial groups of Phloxes, Primula japonica in variety, a lovely colony of hardy Cypripediums, Viola gracilis, Aquilegia Stuartii, Anemone sulphurea, Viola pedata, Ranunculus gramineus, Saxifrages in variety, Phlox Laphami (a delightful colony), and many more.

Messrs. Heath and Son, Cheltenham, had an effective rock garden exhibit in the open, displaying Androsace, Incarvillea grandiflora, Saxifraga ligulata var., Meconopsis aculeata, Achillea in variety, Anthemis cupaniana with white flower-heads, Phyteuma lobelioides gracilis, Veronica Lyallii, Primulas in variety, notably P. bulleyana, P. cockburniana and P. japonica, and many other interesting and beautiful plants.

Messrs. W. Artindale and Son, Sheffield, displayed improvised rockwork, delightfully arranged with alpines and shrubs. Tree Pæonies and Daphne Cneorum were very charming, as were also Aquilegia Stuartii, many choice Saxifrages and other plants.

Mr. G. Reuthe in the open displayed Primula sikkimensis, Saxifraga brunoniana with reddish-coloured runners, and Lewisia Cotyledon with rose, white margined flowers, very charming. Daphne Cneorum was particularly good, also Incarvillea grandiflora brevipes, a very showy kind.

Messrs. William Cutbush and Sons, Highgate, N., had a delightful rock and water garden exhibit in the open, arranging a big flower bank of Rhododendrons and shrubs in the background, below which was an aquatic pool, most intelligently planted and margined with Funkias, Sarracenias, Primulas, hardy Cypripediums and the like. At right and left were banks of Lilies, Eremuri and other choice things, the whole furnishing an object-lesson of rare beauty and charm.

The Burton Hardy Plant Company, Christchurch, had a very charming exhibit of alpines on rockwork on a table. Aquilegia Stuartii, Sempervivum triste, Dianthus nitidus, Sedum pilosum (a new species), Phloxes, Campanula Allionii, Lithospermum Froebelii, Corydalis tomentosum, Dianthus alpinus, Ramondia pyrenaica alba, Lewisia rediviva and Meconopsis paniculata were among the most charming and distinct.

Mr. H. C. Pulham, Elsenham, Essex, had a characteristic rock garden arrangement in the open air, displaying alpines and shrubs to perfection and in great variety. Primulas, Saxifrages, Phloxes, Ramondias, Heuchera, Columbine and Bellflower were all well displayed, the grouping leaving nothing to be desired.

ROSES.

An exceedingly beautiful group of Roses of all types of the flower was arranged in one corner of the large tent. Standards of weeping Roses, embracing the most beautiful ramblers and others, made a display by far the best of its kind in the show. Excelsa, Lady Gay, White Dorothy and Lady Godiva were all very charming. A groundwork of exhibition and other Roses made a beautiful finish to a grand exhibit.

In Messrs. W. Cutbush and Sons' (Highgate and Barnet) group there were many fine specimens of the Rambler Roses, all in fine condition. A groundwork of Polyantha Rose Mrs. W. H. Cutbush and Mme. N. Levavasseur added materially to the effect as a whole.

Another very attractive group of Roses in variety was exhibited by Messrs. William Paul and Son, Limited, Waltham Cross. A superb specimen of wichuraiana American Pillar was a conspicuous feature in the foreground, and there were several others, including Tausendschön, Excelsa, Kathleen, Trier, Blush Rambler and others. A groundwork of fine pot Roses representing Hybrid Perpetual, Hybrid Tea and Tea-scented kinds was a most attractive feature of this fine display.

At the western end of the long Embankment tent, Messrs. Hobbies and Co., Limited, Dereham, set up one of their inimitable groups of Roses in pots. Among the ramblers, Minnehaha, Lady Gay and White Dorothy Perkins were lovely as standards, as were also Hiawatha and Excelsa. In Hybrid Teas, Lyon Rose was superb.

From the nursery of Mr. George Prince, Oxford, there came an interesting exhibit of Roses in considerable variety. Ramblers, show and garden Roses were set up in pleasing manner.

Messrs. George Mount and Sons, Canterbury, again excelled. The background of the group was composed of ramblers in pots, in front of which fine groups of cut Roses representing Frau Karl Druschki, Lady Hillingdon, Mrs. John Laing, Mrs. George Shawyer and Ulrich Brunner were well displayed. Interspersed between the groups were such new Roses as Seedling No. 50—5 and Joseph Lowe. A grand exhibit.

A large and impressive group of Roses arranged on tables was shown by Messrs. B. R. Cant and Sons, Colchester. Ramblers, garden Roses, and a large and meritorious collection of exhibition varieties all combined to make a most satisfactory display.

A fine bank of Roses was set up by Messrs. H. Cannell and Sons, Swanley, Kent. American Pillar, Hiawatha and Stella were good singles, and there was a host of other rambler and garden Roses.

Roses from Messrs. Frank Cant and Co., Colchester, made an interesting show. Small specimen ramblers and a number of splendid exhibition Roses were in evidence here. Some of the decorative Roses were particularly charming.

A very large floor group of Roses in great variety was shown by Mr. Charles Turner, Slough. Specimen Roses in pots were most attractive, and these included all types of the Queen of Flowers. This exhibit was a fine feature in the big tent.

MISCELLANEOUS GREENHOUSE PLANTS.

From Mr. W. H. Page, Tangley Nurseries, Hampton, came round baskets of new Zonal Pelargoniums, viz., Fiscal Reform and His Majesty. There were three large vases of Lilium longiflorum, and these made an attractive exhibit.

A table group of Zonal Pelargoniums was also shown by Mr. R. J. Fry, Abbot's Leigh, Bristol. The plants bore very handsome trusses of bloom, and they were well shown.

From Mr. Vincent Slade, Taunton, Somerset, came an exhibit of twenty-four handsome bunches of distinct kinds of Zonal Pelargoniums. Standard sorts were well represented in both the double and single flowered varieties.

A capital group of herbaceous Calceolarias was staged by Mr. Vivian Phillips, Orpington, Kent. The individual flowers were large, the colours diverse, and the plants gave evidence of good culture.

Messrs. James Veitch and Sons, Limited, Chelsea, set up one of their very handsome and attractive groups of stove and greenhouse plants in flower and fine foliage. Among the better things we noted Caladiums in variety, Marantas, Dieffenbachia, Crotons, Dracænas, Anthuriums in beautiful variety and Orchids in pleasing variation, all beautifully disposed.

From Messrs. J. Piper and Sons, Barnes, came a striking group of Rhododendron Pink Pearl. This group was much admired.

The entrance to the long tent on the Embankment was a beautiful picture with a series of handsome groups put up by Messrs. James Carter and Co., High Holborn, W.C. Cinerarias, Petunias, Gloxinias, Schizanthuses and Stocks, all in charmingly diversified form and colour, well maintained the great reputation this well-known firm has gained for high quality in flowers. The Cinerarias were especially noteworthy, the flowers being large, of good colour, and the plants good in habit and free flowering.

Messrs. Carter Page and Co., London Wall, E.C., had a nice lot of Zonal Pelargoniums in handsome bunches representing the better kinds in cultivation. Umbria, Mary Seton, Arabic and Cymric were noteworthy.

From Messrs. James Veitch and Son, Limited, Chelsea, came one of their invaluable table groups of choice stove and greenhouse plants. Streptocarpi in variety were finely shown, as were also Cineraria Decorator, C. Fairy Queen and C. Langley Red. Calceolaria Buttercup, C. Clibranii and the new hybrid Gerberas were just a few of the good things to be seen.

A pretty group of exceptionally well-grown herbaceous Calceolarias was shown by Mr. Wickham Noakes, Seldon Park, Croydon. The plants were large, freely flowered, and the colours good and pleasingly varied.

Again Messrs. Sutton and Sons, Reading, excelled. Their exhibit occupied the whole of one end of the great tent, and was made up of a series of large and imposing groups of Cineraria stellata, herbaceous Calceolarias, Schizanthuses in very fine form, interspersed between the group with Gloxinias, Nemesia Suttonii, Begonias and other interesting plants; really a glorious array of colour.

The Azaleas from Mr. Charles Turner are always eagerly sought after, and the pretty specimens, freely flowered, were at their best.

A group of miscellaneous plants was shown by Mr. L. R. Russell, Richmond, and included a great variety of foliage plants of a most interesting character. Plants peculiar to the stove and greenhouse were deftly disposed, and were much admired.

The hardy Azaleas are always a feature of this great show, and Messrs. R. and G. Cuthbert of Southgate, N., never fail to make a grand display. The plants seemed hardly as large as usual, but there was such a plethora of them that there was enough to satisfy everyone. The new Duchess of Portland and Prince of Orange are two good novelties of the mollis type crossed with sinensis.

Hardy Rhododendrons as exhibited by Messrs. John Waterer and Sons, Limited, Bagshot, Surrey, were very handsome indeed. Alice, Dorothy Fortescue, Doncaster, Prometheus, Pink Pearl and Gomer Waterer were the cream of the sorts shown. This exhibit was much admired.

A magnificent group of hardy flowering trees and shrubs was arranged by Messrs. James Veitch and Sons, Limited, Chelsea. This was a most comprehensive group, and embraced a very large number of choice subjects—Clematises, Rhododendrons, Azaleas, Hydrangeas, Pæonies, Roses, Deutzias and a large array of charming subjects—that were a source of pleasure to many.

A superb group of exotic Ferns was arranged on a table space by Messrs. J. Hill and Sons, Lower Edmonton. Handsome specimen plants were freely in evidence, and they were in excellent form and condition. Adiantum imbricatum was attractive, and several varieties of Gleichenia were extremely dainty.

New Holland Plants were capitally shown by Messrs. Stuart Low and Co., Bush Hill Park, Enfield. Hydrangeas, Ericas, Gerberas and Azaleas all contributed to make a useful exhibit.

Hippeastrums from Messrs. Ker and Sons, Aigburth Nursery, Liverpool, were a fine lot. Superbly fine aptly describes the whole of them. A few good sorts were Lord Milner, Lady Rose, Cerise King, Ruby King and Monarch. This exhibit proved the wonderful development in these plants of late.

A noble group of Caladiums was set up by Messrs. John Peed and Son, West Norwood, S.E. Large plants, well coloured for the season, were seen in this display, and they were much admired. Mrs. J. Box, John Peed, Triomphe de Comte, Diamantina and candidum were capital specimens. A long table group of finely-grown Gloxinias came from Messrs. John Peed and Son. The flowers were exceptionally large, charmingly diversified in the markings and colourings, and were beautifully fresh.

SWEET PEAS.

A detailed report of the Sweet Peas shown will appear in next week's issue. Sweet Peas were exhibited by Messrs. Dobbie and Co., Edinburgh; Mr. J. Stevenson, Wimborne; Mr. W. E. Alsen, Denmead; Messrs. H. J. Jones, Limited, Lewisham; Robert Sydenham, Limited, Birmingham; Miss Hemus, Upton-on-Severn; Messrs. G. Stark and Son, Great Ryburgh; and Mr. Breadmore, Winchester.

CARNATIONS.

A group of Carnations disposed in a pleasing manner came from Messrs. Young and Co., Hatherley, Cheshire. The flowers were set up in tall vases, and represented most of the popular sorts.

Carnations from Messrs. Stuart Low and Co., Bush Hill Park, Enfield, are always most attractively set up. In this instance their arrangement was pleasing. Duchess of Westminster, Rose Doré, Rival and Marmion were among the more attractive sorts.

A bright table group of Carnations was exhibited by Messrs. Bath, Limited, Wisbech. Although not a great display, the exhibit was distinctly dainty, and included such sorts as May Day, Mrs. C. W. Ward, Scarlet Glow and Apple Blossom.

New Carnations were set up in a group on a table by Messrs. W. Wells and Co., Limited, Merstham. White House and Pink Delight are two sorts worth noting, and these were well shown.

At one end of the central tabling of the big tent was a capital group of the Perpetual-flowering Pink Progress. This is a beautiful plant, freely flowered and distinctly Clove-scented. It is a full flower of good form, and the colour is a rich rosy mauve. Exhibited by Mr. C. H. Herbert, Acock's Green, Birmingham.

Arranged with other subjects in a very large group were several good plants of the better Malmaison Carnations—Lady Middleton, Maggie Hodgson, Princess of Wales and the old blush form. This exhibit came from Mr. Charles Turner.

Especially fine were the Carnations from Mr. C. F. Waters, Balcombe, Sussex, the flowers being large and well grown. Edith Waters, a fine new cerise kind, is good. Enchantress, Winsor, Carola, WhitePerfection and Alma Ward were all well done.

An interesting group came from Mr. C. Engelmann, Saffron Walden, Essex. Bowls, vases, etc., were daintily arranged with standard sorts. Among others we noted Rosa, Jessica, Rex, Carola, Harlequin and Sunstar as especially noteworthy.

Mr. Bertie E. Bell, Castel Nursery, Guernsey, had a magnificent table group of fine flowers, artistically disposed. Marmion, Winsor, Enchantress, Bay State May and a number of unnamed seedlings were charmingly displayed.

The Thatcham Fruit and Flower Farm, near Newbury, showed their skill in no unmistakable fashion in a pretty group of these popular flowers. Britannia, Mrs. Burnett and White Perfection were the best of an interesting lot.

Mr. S. Mortimer, Rowledge, Farnham, had a fine lot of flowers, including Royal Purple, May Day, Beacon and J. Whitcombe Riley. This group was fronted with a fine Clove-scented perpetual-flowering Stock raised by Mr. Mortimer.

Messrs. Jones and Son, Limited, Shrewsbury, had a small group of Carnations arranged with Irises, Violas, etc. The flowers were well grown and beautifully coloured.

Mr. Charles Blick, Hayes, Kent, had a superb group of well-grown flowers, charmingly disposed. Lady Hermione, Thomas à Becket, Victory, Marmion, Prince Arthur, Bombadier, Lieutenant Shackleton and Pater were a few of the many splendid perpetual and border Carnations in evidence.

A most striking group of Carnations in stately vases was exhibited by Mr. H. Burnett, Guernsey. Large and handsome flowers, richly coloured, and all of the highest quality well sustained the reputation of this grower. Marmion, Mrs. C. F. Raphael, R. F. Felton, Mikado, Orpheus and the best scented Tree Carnation extant, Mrs. W. B. Clode, were the more noteworthy varieties.

A highly-coloured lot of beautiful blooms, set up in stately vases, was shown by Mr. A. F. Dutton, Iver, Bucks. Mrs. T. W. Lawson, Lawson Enchantress, Alvina, Mrs. Chas. Knopf and Winsor were conspicuous among other good things.

In the miscellaneous group of Messrs. Cutbush and Sons the Carnations were a remarkably fine feature. Specially good were The Queen, Rose Doré, Princess of Wales, Mercia, Mrs. Fortescue, Lady C. Waring and Queen Mary. Mounds and vases of flowers were charmingly disposed.

BEGONIAS.

Begonias from Messrs. T. S. Ware, Feltham, Middlesex, are always worth seeing, and again their exhibit was especially good. The doubles were very fine indeed, and included Lady Cromer, Captain Lafone, Patrick Ainslie and imbricata.

A pretty group was set up by Mr. A. Ll. Gwillim. The flowers were of good form, medium size and gave evidence of good culture.

An exceptionally beautiful lot of Begonias from Messrs. Blackmore and Langdon, Twerton Hill, Bath, made a handsome display. The finish was very noticeable in the group, and quality, if not represented by large blooms, was in evidence throughout the display. Princess Victoria Luise and Mme. Tetrazzini were two splendid doubles of a soft pink colour.

MISCELLANEOUS GROUPS.

Messrs. H. Cannell and Sons, Swanley, Kent, made a huge exhibit, which embraced Zonal Pelargoniums in handsome bunches and in charming variety, Cacti, show and Regal Pelargoniums in nicely-grown plants, a very handsome lot of herbaceous Calceolarias, Myosotis pyramidalis and a pretty group of Cannas. This was a fine effort.

Sarracenias, Droseras, &c., were exhibited in pleasing variety by Mr. A. J. Bruce, Chorlton-cum-Hardy, Manchester. The new white Marguerite Queen Alexandra and a blush form of the same variety, but hardly ready for the show, were also exhibited by this firm.

A very excellent group of Heliotropes was staged by the King's Acre Nurseries, Limited, Hereford, in which large and handsome trusses of their fragrant blossoms were freely shown. Favourite, Athys and Dr. Jenlin were notable examples. The plants were slightly past their best.

Messrs. H. B. May and Sons, Upper Edmonton, set up one of their fine exhibits of Ferns, which included a large number of choice and remarkable plants. This exhibit is always eagerly sought after by the Fern-lover. A pretty lot of single and double Zonal Pelargoniums came from the same firm.

Miscellaneous flowering plants, which embraced Schizanthuses, herbaceous Calceolarias and Cineraria stellata, made a charming exhibit as set up by Messrs. E. Webb and Sons, Stourbridge. Cinerarias of the ordinary form also found a place. As a whole this was an attractive and meritorious exhibit.

The new Marguerite Mrs. F. Sander was staged in fine form by Messrs. Sander and Sons, St. Albans, and in the same group a good specimen of Ataccia cristata was seen.

Lilium lancifolium, Lily of the Valley and some new Spiræas came from Mr. R. H. Sydenham, and gave evidence of good culture

Messrs. James Carter and Co., Raynes Park, erected one of the most interesting features of the show in the form of a well-planned Japanese garden. It included lakes with bridges, and was planted with dwarf pygmy trees, while dotted about here and there was Japanese stonework of quaint design.

FRUIT.

A first-rate collection of Strawberries was staged by Messrs. Laxton Brothers, Bedford. The aroma and colour of the fruits attracted a great deal of attention from the many visitors who thronged the tents. We were well impressed with a grand new Strawberry, King George V., somewhat resembling Royal Sovereign. Fruiting plants, as well as baskets of this handsome variety, were shown. Two other varieties worthy of special note were Laxton's Maincrop and George Monro.

Messrs. T. Rivers and Son, Sawbridgeworth, had a grand display of Peaches, Cherries and Nectarines growing in pots. Among the best of the Cherries were Early Black and Early Rivers', both free-cropping varieties with dark but brightly-coloured fruits. The Peach trees, carrying good crops, left nothing to be desired. The variety Peregrine was greatly admired. The Plum trees in pots looked less tempting, as the fruits were hardly ripe. The Nectarines were capital, the highly-coloured fruits being very attractive.

VEGETABLES.

A remarkably fine exhibit of vegetables was staged by Mr. E. Beckett, the able gardener to the Hon. Vicary Gibbs, Aldenham House, Elstree. The exhibit was quite up to the high standard of former displays from these famous gardens. The arrangement was excellent. In the foreground were neat little dishes of new Potatoes, Tomatoes, Radishes, Peas, Marrows, Runner Beans, Mushrooms, Carrots and many handsome Cucumbers. In the background were Cabbages, Celery, Broccoli, Asparagus and other vegetables, making in all a unique and admirable collection.

An interesting and well-arranged collection of vegetables was staged by ladies from The Thatcham Fruit and Flower Farm, near Newbury. Salads were the leading feature of this exhibit. The Tomatoes and Beetroot were under-sized. Garden Peas, Broccoli and Carrots were very good and well arranged.

Mr. T. E. Dawes, Syderstone, Norfolk, showed some wonderful sticks of Rhubarb. The variety Dawes' Challenge had highly-coloured sticks about 4 feet in length.

FLOWERING SHRUBS OUTSIDE.

Messrs. W. Paul and Son, Limited, Waltham Cross, had a group of shrubs in full flower, including Rhododendron Pink Pearl, R. Old Port and R. Charles Dickens; also various Loniceras, Cytisuses and Cupressus macrocarpa lutea.

*** *Owing to the demand on our space we are compelled to hold over the report of the Orchids and Shrubs until next week. Descriptions of new plants will also be given.*

OFFICIAL LIST OF AWARDS.

Gold Medals.—Sir Jeremiah Colman, Bart., Reigate, for Orchids; the Hon. Vicary Gibbs, Elstree, for vegetables; Messrs. Charlesworth, Hayward's Heath, for Orchids; Messrs. Sander and Sons, St. Albans, for Orchids; Messrs. T. Rivers and Sons, Sawbridgeworth, for fruit trees in pots; Messrs. R. and G. Cuthbert, Southgate, for Azaleas; Messrs. W. Cutbush, Highgate, for Carnations with Roses; Messrs. Sutton and Sons, Reading, for flowering plants; Messrs. George Mount and Sons, Limited, Canterbury, for Roses; Messrs. Paul and Son, Cheshunt, for Roses; Messrs. W. Paul and Son, Waltham Cross, for Roses; Messrs. J. Veitch and Sons, Chelsea, for foliage plants; Messrs. H. B. May and Sons, Upper Edmonton, for Ferns and flowering plants; Mr. Amos Perry, Enfield, for herbaceous plants, &c.; and Messrs. R. Wallace and Co., Colchester, for flowering plants.

Silver Cups.—Messrs. Armstrong and Brown, Tunbridge Wells, for Orchids; Samuel Larkin, Esq., Haslemere, for Orchids; Messrs. Mansell and Hatcher, Limited, Rawdon, for Orchids; Messrs. Alex. Dickson and Sons, Limited, Belfast, for Tulips; Messrs. J. Veitch and Sons, Limited, Chelsea, for herbaceous and flowering plants; Messrs. W. Cutbush and Son, Highgate, for rock, alpine and herbaceous plants; Messrs. Barr and Sons, Covent Garden, for rockery, Tulips, pygmy trees, &c.; Messrs. James Carter and Co., Raynes Park, for Japanese garden and flowering plants; Mr. Charles Turner, Slough, for Azaleas, Carnations and Roses; Mr. L. R. Russell, Richmond, for ornamental trees and flowering plants; Messrs. T. S. Ware, Limited, Feltham, for Begonias, &c.; Messrs. H. Cannell and Sons, Swanley, for Calceolarias, Pelargoniums, &c.; Messrs. J. Cheal and Sons, Crawley, for rock garden and group; Mr. G. Jackman, Woking, for Clematis; The Craven Nursery Company, Clapham, Yorks, for rock garden; Mr. Clarence Elliott, Stevenage, for alpines; Messrs. B. Cant and Sons, Colchester, for Roses; Messrs. W. Fromow and Sons, Chiswick, for Japanese Maples; Messrs. Laxton Brothers, Bedford, for Strawberries; Mr. H. Burnett, Guernsey, for Carnations; Messrs. Dobbie and Co., Edinburgh, for Sweet Peas and Violas; Hobbies, Limited, Dereham, for Roses; Messrs. Blackmore and Langdon, Twerton-on-Avon, for Begonias; Messrs. J. Waterer and Sons, Limited, Bagshot, for Rhododendrons; and Messrs. R. P. Ker and Sons, Liverpool, for Amaryllis.

Silver-gilt Flora Medals.—Messrs. James Cypher and Sons, Cheltenham, for Orchids; Messrs. J. and A. McBean, Cooksbridge, for Orchids; Mr. Maurice Prichard, Christchurch, for rock garden; Messrs. Stuart Low and Co., Enfield, for Orchids and flowering plants; Baker's, Codsall, for rock garden, herbaceous and bog plants; Messrs. Backhouse and Sons, Limited, York, for alpines and herbaceous plants; Mr. G. Reuthe, Keston, for herbaceous and alpine plants; Messrs. John Peed and Son, Streatham, for Caladiums; Mr. R. C. Notcutt, Woodbridge, for flowering shrubs, &c.; Mr. A. J. A. Bruce, Manchester, for Sarracenias, &c.; Messrs. Frank Cant, Colchester, for Roses; Messrs. J. Hill and Son, Lower Edmonton, for Ferns; Mr. Charles Blick, Hayes, for Carnations; Mr. Frank Lilley, Guernsey, for Gladioli and Irises; and Messrs. Pulham and Son, Oxford Street, for rock garden.

Silver-gilt Banksian Medals.—Messrs. J. Piper and Son, Uckfield, for Rhododendrons and Box trees; the Guildford Hardy Plant Nursery, for alpine and rock garden; Mr. Bertie Bell, Guernsey, for Carnations; Mr. C. Engelmann, Saffron Walden, for Carnations; Messrs. Hogg and Robertson, Dublin, for Tulips and bulbous flowers; Messrs. John Jefferies and Son, Limited, Cirencester, for Tulips; and Messrs. Jones and Sons, Limited, Shrewsbury, for Carnations, Sweet Peas, &c.

Silver Knightian Medals.—Mr. A. J. Harwood, Colchester, for Asparagus and Primulas; and The Thatcham Fruit and Flower Farm, near Newbury, for Carnations and vegetables.

Silver Flora Medals.—Mr. J. Robson, Altrincham, for Orchids; Messrs. R. and G. Cuthbert, Southgate, for Tulips; Messrs. Sutton and Sons, Reading, for Tulips; Messrs. R. H. Bath, Limited, Wisbech, for Carnations and Tulips; Messrs. G. Bunyard and Co., Limited, Maidstone, for Tulips and herbaceous plants; Messrs. G. and A. Clark, Limited, Dover, for alpines and herbaceous plants; Mr. Howard H. Crane, Highgate, for Violas and Violettas; Messrs. Artindale and Son, Sheffield, for rock garden and herbaceous plants; Mr. H. Hemsley, Crawley, for alpines and herbaceous plants; Mr. G. Prince, Longworth, for Roses; The Burton Hardy Plant Nurseries, Christchurch, for alpines; Messrs. B. Ladhams, Limited, Southampton, for hardy flowers; Mr. John MacWatt, Duns, N.B., for Primulas and Auriculas; Mr. C. F. Waters, Balcombe, for Carnations; Messrs. E. Webb and Sons, Stourbridge, for Calceolarias, &c.; and Mr. C. Breadmore, Winchester, for Sweet Peas.

Silver Banksian Medals.—Mr. Robert Stevenson, Cambridge, for Asparagus; The King's Acre Nurseries, Limited, Hereford, for Heliotropes and herbaceous plants; Mr. A. F. Dutton, Iver, for Carnations; Messrs. H. J. Jones, Lewisham, for Sweet Peas and Pelargoniums; Messrs. Kelway, Langport, for Pyrethrums and Pæonies; Messrs. Frederick Smith and Co., Woodbridge, for herbaceous plants; Messrs. Storrie and Storrie, Glencarse, for Polyanthuses and Auriculas; Messrs. J. Cocker and Son, Aberdeen, for herbaceous flowers; Messrs. John Forbes (Hawick), Limited, Hawick, for Delphiniums and Pentstemons; Messrs. Gunn and Sons, Olton, for herbaceous flowers; Messrs. Heath and Son, Cheltenham, for rock garden; Messrs. Harkness, Hitchin, for Trollius; the Misses K. and E. Hopkins, Shepperton, for rock garden; Mr. Reginald Prichard, West Moors, for alpines; Messrs. Bees, Limited, Liverpool, for new Primulas and alpines; Mr. H. Correvon, Geneva, for alpines; Messrs. G. Gibson and Co., Bedale, for herbaceous plants and alpines; Mr. A. Ll. Gwillim, Sidcup, for Begonias; Mr. W. H. Page, Hampton, for Zonal Pelargoniums; Messrs. Robert Sydenham, Limited, Birmingham, for Sweet Peas and Lilies; and Messrs. Young and Co., Cheltenham, for Carnations.

Bronze Flora Medals.—Mr. E. V. Low, Hayward's Heath, for Orchids; Mr. H. Dixon, Wandsworth Common, for Orchids; Messrs. Carter Page and Co., London Wall, for flowering plants; Messrs. Godfrey and Sons, Exmouth, for Poppies; Messrs. J. E. Knight, Wolverhampton, for Violas; Mr. J. Stevenson, Wimborne, for Sweet Peas; Mrs. Edward Lloyd, Llangollen, for Saxifrages and alpines; Messrs. Seagrave and Co., Sheffield, for Violas; Messrs. W. Wells, Merstham, for Carnations, &c.; Vivian Phillips, Esq., Orpington, for Calceolarias; and Wickham Noakes, Esq., Croydon, for Calceolarias.

FLORAL COMMITTEE AWARDS FOR NEW PLANTS.

First-Class Certificate.—Davidia involucrata, from Messrs. J. Veitch and Sons, Chelsea.

Awards of Merit.—Haberlea Ferdinandi Coburgi, from Mr. G. Reuthe, Keston, Kent; Lewisia Cotyledon, from Mr. G. Reuthe, Keston, Kent; Azalea Duchess of Portland, from Messrs. Cuthbert, Southgate; Hybrid Tea Rose Portia, from Messrs. W. Paul, Waltham Cross; Perpetual-flowering Rambler Rose Sylvia, from Messrs. W. Paul, Waltham Cross; Azalea sublanceolatum, from Mr. R. C. Notcutt, Woodbridge; Rhododendron Corona, from Messrs. J. Waterer, Bagshot; Lilium tenuifolium Golden Gleam, from Messrs. Wallace, Colchester; Rhododendron Loder's White, from Mr. G. Reuthe, Keston, Kent; Rhododendron Littleworth Corallina and Rhododendron Glory of Littleworth, from Miss Mangles, Seale, Surrey.

ORCHID COMMITTEE AWARDS.

First-class Certificates.—Oncidium Mulleri, from Messrs. Sander and Sons, St. Albans; Odontioda lambeaniana, from Messrs Sander and Sons, St. Albans; Odontioda Bradshawiæ, from Sir J. Colman, Bart.; Odontioda Vuylstekeæ Coronation, from M. Ch. Vuylsteke; Odontoglossum Black Prince The Dell variety, from Baron Bruno Schröder, Englefield Green; and Lælio-Cattleya Morningtoniæ, from F. A. Wellesley, Esq., Woking.

Awards of Merit.—Odontoglossum amabile var. Empress of India, from Messrs. Sander and Sons, St. Albans; Lælio-Cattleya Germanica, from Messrs. Charlesworth, Hayward's Heath; Oncidium Claesii, from Sir J. Colman Bart.; Cattleya Mossiæ G. M. Hale, from S. Larkin, Esq., Haslemere; and Cœlogyne burfordense, from Sir Trevor Lawrence, Bart., Dorking.

Cultural Commendation.—Messrs. Charlesworth, Hayward's Heath, for Odontoglossum Hastilabium Charlesworth's variety.

THE FLOWER GARDEN.

HE ROCK GARDEN AT SOUTH LODGE, HORSHAM.

A CHARMING feature of many gardens during the spring months is a well-designed and carefully-planted rock garden. The charm of such a garden as illustrated is found to a great extent in its occupants, which combine a perennial character with the utmost floral rofusion, and for the most part diminutive ature. When carefully arranged in broad asses with due attention to the harmony of olours, and the groups not too rigidly defined, he effect produced when in flower conveys the idea f spontaneous growth clothing miniature valleys, nd breaking from rocky crags in such happy bandonment as to entirely suppress all idea of straint or artificial character.

A most successful rock garden, regarded either s a structure for plant growth or as an example of kilful planting, is that at South Lodge, Horsham, he residence of F. D. Godman, Esq. It covers considerable area, and gives the idea of a ravine hrough which a passage has been cut, leaving reat masses of rock exposed on either side, which their disposition and method of planting have esulted in most charming scenic effects. The ubjects with which it is planted embrace a variety hat would be difficult to equal, and even rare lants are here represented in masses that readily onvey to the mind the truly regal character of hese alpine gems and their fitness for garden ecoration when intelligently planted.

The success of the rock garden at South Lodge due in large measure to the system practised y Mr. Giles (the gardener) in raising a percentage f the rarer and more difficult subjects from seed very year, and so maintaining the vigour of each roup by young and vigorous stock. A patch of entiana verna was noted raised in this manner, nd was so full of flower that leaves were difficult to iscern. Androsace primuloides, A. Chamæjasme, mphalodes Luciliæ, Æthionema Jacunda, Daphne neorum major, Cytisus kewense, Primula Allionii, . bulleyana and P. pulverulenta were represented strong specimens or vigorous groups, and, with olonies of more familiar subjects, testified to he great variety found in this collection and the marked ability displayed in their cultivaon.

THOMAS SMITH.

SWEET PEA NOTES.

ATERING PLANTS.—The inexperienced amateur often puzzled to know when he ought to comence watering his plants, and he usually finishes y starting a great deal too soon. That the il at the roots must always be moist is accepted, t that it should be made sodden by excessive pplies of water before the roots are sufficiently undant and vigorous to imbibe it is certainly rong. The wise grower defers bringing out the ater-pot until it is necessary, and he then uses with an intelligence which the importance of e task fully justifies. Cold tap-water must never poured direct on to the bases of the plants; may not do harm, but it will never do good. stead, narrow grips or gulleys should be drawn me inches away on each side of the rows, or both side and outside of the ring of plants in clumps, r receiving the water. Fill these repeatedly, d it will soon soak down far enough for appropiation by the roots. In all instances rain or ft water is preferable to that from mains.

EEDING.—To water means to feed the plants, t the terms are usually, and quite properly, ssociated. The fact that water is given simply means that reliance is still being placed upon the food stored in the ground, whereas feeding means that liquid stronger than water, and therefore containing plant food, is applied. Over-anxiety on behalf of the plants often leads the amateur astray in this as in watering. Assuming that the soil was correctly prepared, and that a generous dressing of the best available manure was worked in, it is safe to assert that no attempt should be made artificially to feed until the plants are well in bud, and this, it is hoped, will not be the case yet awhile. As was suggested in the previous paragraph, hold off watering until the day of necessity, and do not commence feeding for some time after that unless lack of food is known.

SUPPORTING.—Long before this note sees the light of print all supporting stakes will have been put to the rows and clumps, and it may be thought that the last thing in this direction has been done; but this does not always follow. There are some plants which have a more or less perverse nature and will not take to the supporting stakes or wire provided expressly for them, and when this occurs the man must step in with his powers of persuasion. Growths which are valueless should be promptly cut out, and those that are not going in exactly the desired direction should be judiciously corrected, while any which refuse the supports must be forced to accept them with ties efficient for the purpose, but never so tight that progress is arrested in the smallest degree. Exhibition plants growing to single stems demand incessant attention in the matter of tying if everything is to proceed satisfactorily; but plants trained in the ordinary manner to new Hazel sticks usually require assistance in the earlier stages only, and perhaps now and again subsequently.

SHADING MATERIAL.—We have not yet reached that happy state of affairs when we can afford, as growers of Sweet Peas for exhibition, to ignore entirely the shading of varieties with orange in them. Crimsons and scarlets used to be sources of trouble and worry similarly; but we now have varieties unaffected by the sun, and these should be grown to the exclusion of all others of their shades. In the orange group we are not so far advanced, though there are real hopes that we shall have these free from the defect of burning in due course. There can be no question that the provision of shades mars the general charm of the garden, but it is a matter of compulsion. A supply ought to be ordered now, or shortly, so that all may be ready when the crucial time comes. Butter muslin is excellent, but I have never used anything more satisfactory for this purpose than the material in which the carcases of sheep are brought into this country from the Colonies. It may be washed before use.

A. B. ESSEX.

TREE CARNATIONS AS BEDDING-OUT PLANTS.

A FEW years ago I saw several beds well filled with these plants in a Lancashire garden. They were very even in growth, healthy and studded with flowers and buds in various stages of development. The plants had been put out in order to ascertain whether they would be successful. There was no doubt about their success when I saw them. I have never seen border Carnations to equal them.

Since then I have had the privilege of seeing Tree Carnations growing in other gardens and in a much more clayey soil, and here, again, they were successful. Having made some enquiries as to the necessary treatment, I will pass on the hints gained.



ENTRANCE TO THE ROCK GARDEN, SOUTH LODGE, HORSHAM.

In the first place it is necessary to deeply dig or trench the soil, and to add a small quantity of burnt earth and old mortar rubble if the soil is principally clay. If of medium quality and lightness, the trenching and a dressing of well-rotted manure only are advisable in its preparation, and while fairly dry, previous to the work of planting being done, a moderate treading down will be beneficial, as these plants like a somewhat firm rooting medium. Leaf-soil must not be put in, and the rotted manure must be mixed with the soil just below that point where the roots of the plants will come when the latter are put out.

Strong, well-rooted specimens must be planted, duly staked and attended to as regards watering; but I may add that it is a mistake to over-water. When in the borders these plants require less water than they do in pots. The flowering period will extend from July to October.

B.

TREES AND SHRUBS.

AN INTERESTING CONIFER.

(ABIES BRACTEATA.)

THIS handsome Fir is one of our most ornamental coniferous trees, especially when producing its curious cones, as shown in the accompanying illustration taken from a well-known tree at Highnam Court, Gloucester. Abies bracteata is to be found in many collections of conifers, but is by no means common in cultivation. Two of the finest in England are at Eastnor Castle, Hereford, the tallest being about 80 feet high. They were planted in 1865. The tree at Highnam was 64 feet high by 6 feet 2 inches in girth when I measured it in 1908. It has several times produced cones, and from some of these seedlings have been raised. The tree appears to be quite hardy. This Fir is very rare in a wild state, occurring only in a few isolated groves on the western ridge of the Santa Lucia Mountains in California. William Lobb (Messrs. Veitch's collector) was responsible for its introduction, and it is from seeds obtained by him in 1854 that all the oldest trees of Abies bracteata have originated. The cones are very singular-looking, on account of the curious spines which terminate the bracts. They are from 1 inch to 2 inches long, and are often covered, as may be clearly seen in the illustration, with globules of resin. A. B. JACKSON.

THE MAGNOLIA-LEAVED HOLLY.

(ILEX LATIFOLIA.)

UNDER the name of the Magnolia-leaved Holly this Japanese species is occasionally met with in gardens, though less frequently than its decorative characters warrant. It must be admitted, however, that it is not suitable for general cultivation in the British Isles, for it is less hardy than many of the other species. From London southwards and westwards it may be grown with success, and in some parts of the Midlands it may be expected to thrive. Several good plants have been noted in the garden of H.R.H. the Duchess of Albany at Claremont, while one or two good examples are to be found at Osborne, Isle of Wight, and Leonardslee, Sussex, in addition to other places. It was introduced to Europe by Dr. Siebold, and about a year later, in 1841, it made its first appearance in England, the introducer being Mr. Joseph Knight of the Exotic Nursery, Chelsea. In the southern parts of Japan it is met with as a tree up to 60 feet high. Its leaves vary considerably in size. The margins are slightly serrated, rarely spiny. As with other Hollies, the flowers are small and not very conspicuous, except when they appear in large numbers. In the case of female plants the flowers are succeeded by red fruits, which are smaller than those of the common Holly. D.



A CONE-BEARING SHOOT OF ABIES BRACTEATA.

THE TOWN GARDEN.

HARDY FERNS.—Too frequently in towns and suburban districts the shaded nooks or corners of the garden are entirely overlooked, or they presently resolve themselves into something worse—disreputable and offensive-looking rubbish-heaps, harbingers of everything that is bad in fungoid diseases and insect-life, and, therefore, to be discouraged by all possible means. Too frequently, also, complaint is made that nothing will grow in such places. "I have tried everything," their owner will say; but hitherto "everything" has not included hardy Ferns. Now in gardening, as in other walks of life, there is, or should be, a place for everything, and a sun-loving subject if planted where light and warmth cannot reach it cannot be expected to thrive, any more than though a shade-loving subject were planted in full sun. Hence one would commend hardy Ferns generally to the notice of town-dwellers for the places under consideration, as much because of their special adaptability to such circumstances as for their beautiful and cooling effects when rightly placed and well grown.

THE SOIL CONDITIONS of the places one has in mind are not usually of the best, that is, if we view such things from the flower gardening point of view. Happily, however, the hardy Ferns are not of a very exacting nature. They thrive in clay, in wet or damp ditches. Some of them are seen, less thrifty, of course, in dusty hedgerows, or, again, a continuously cool wall with a northern exposure may have its quota of these plants. Hence the amateur need not greatly worry about the soil, since the chief essential to success is shade or one of its near equivalents, uniform coolness or moisture. To say that the amateur need not greatly worry about soils is not to say that he should entirely neglect them in the matter of their preparation; rather is it intended to mean that no special mixture would be necessary. Soils are always better for deep digging in such places, and if to this very old manure and leaf-mould could be added, so much the better.

SOME OF THE BEST POSITIONS are those near walls and, in the foreground of the small shrubbery, any out-of-the-way corner, indeed, where flowering plants have so often been tried and so signally failed. In thickly-populated districts, where many houses are in terraced rows or on the semi-detached plan, narrow borders occur at the immediate rear of the premises which are exactly suited to the requirements of the plants. In short, they do extremely well in such places, and should be more often planted there. Then, should the tenant or owner be of an artistic temperament, he will secure root stumps, clinkered burrs or like things for association with the Ferns, or, perchance, he may prefer to sprinkle Bluebells or Primroses among his plants to produce a little floral gaiety when the Fern fronds are young. In these and other ways pretty garden effects are secured, in the most unlikely places, and it is this making much of little things that is responsible for so many of the pleasures of gardening.

WARDIAN CASES.—That there are Ferns and Ferns—those which are most at home in wet ditches or shady woodland, and those that delight in the moisture of caves or damp rocks—is well known, and it is these latter that are best suited to the window-sill Wardian case when this is on the shady side of the house. For the Wardian case the Filmy Ferns—Todea and Trichomanes, lovers of continuous overhead moisture—are the best, these preferring always to be associated with moisture-absorbing rocks such as sandstone.

FOR THE OPEN-AIR GARDEN the Hart's-tongue (Scolopendrium vulgare), Welsh Polypody (Polypodium vulgare cambricum), Soft Shield Fern (Polystichum angulare), Lady Fern (Athyrium Filix-fœmina), common Buckler or Male Fern (Lastrea Filix-mas) and Hard Fern (Blechnum Spicant) are among the best. In quite dry positions—near the root stumps of trees, for example—the common Polypody will be found to do quite well, the Limestone Polypody (P. calcareum), the Oak Fern (P. Dryopteris) and the North American Maidenhair (Adiantum pedatum) being valuable in drier shade. S. N. N.

GARDENING FOR BEGINNERS.

PLANTING ECHEVERIAS AND SHRUBBY CALCEOLARIAS.

ECHEVERIAS are mostly of Mexican origin, and for this reason need the protection of either a greenhouse or cold frame during winter. In the present instance reference is made to the more hardy varieties, which grow quite successfully in ordinary soil on a sunny rockery or as an edging to beds and borders. Echeveria metallica is one of the larger species, the plants attaining a height of from 1 foot to 2 feet. Individual plants are frequently dotted about in beds of an ornamental character, and they are usually planted in their summer quarters in June. It is unsafe to leave plants of this striking species outdoors after the autumn. For this reason they are removed to a cold frame or greenhouse. Of the dwarfer forms there are two or three very interesting kinds, namely, E. secunda, which has glaucous coloured leaves tipped with red; E. secunda glauca, with bluish white leaves; and E. secunda glauca major, a plant having longer leaves than the last mentioned. Each of these three dwarf-growing plants is much used for beds and borders where the more tender subjects of our frames and greenhouses are planted. As a subject for edgings it is most useful, apart altogether from its value for lines in carpet-bedding schemes. Planting may begin in early May in warm and sheltered positions, but in most gardens it would be unwise to commence this operation until the present time. Apart from the value of the glaucous coloured, succulent leaves of the Echeveria, the plants bear pretty red and yellow blossoms on curved flower-stems throughout the summer months. As the reader can readily understand, the flowers are not allowed to develop on plants used for carpet-bedding. Echeverias are managed quite easily, and they may be obtained of any nurseryman at a comparatively low cost and quite ready for planting. It is usual to plant E. secunda and its varieties about 2 inches apart around the sloping edge of a bed, as shown in Fig. 1. With a small trowel a sufficient quantity of soil should be taken out to embed the roots of the plants, so that the base of each specimen just touches the surface soil, as the illustration so clearly shows. After planting give a good watering in with a fine-rosed can, and the future well-being of the plants should then be assured.



1.—HOW TO PLANT ECHEVERIAS ABOUT 2 INCHES APART TO FORM AN EDGING.



2.—CALCEOLARIAS PLANTED ALTERNATELY IN ROWS.

The second subject dealt with in the present notes is a very popular garden flowering plant known to most gardeners by the name of the shrubby Calceolaria. Common names of the Calceolarias are the Slipper-flower and the Slipperwort. It is the yellow and dark kinds that are so largely grown for bedding. They are varieties of an old Chilian species, and are known by the botanical name of C. rugosa. The shrubby kinds, being tender, are raised from cuttings in a cold frame in the autumn, and with very little trouble they winter quite satisfactorily and respond with vigorous growth in the spring and early summer. All too frequently the young plants are coddled in frames; this is due to want of knowledge of their requirements. It is better when the cuttings look fresh to ventilate the cold frame slightly, also to shade them during bright sunshine. It is now perfectly safe to plant outdoors in the South and in the Midlands. The plants, however, should be subjected to a process of hardening off, otherwise it would be most unsafe to plant outdoors for a time.

To grow the shrubby Calceolarias successfully they should be treated to garden soil that has been carefully and well prepared. A moist, rich soil suits these plants best. Some time before the planting is done, part of the contents of an old hotbed should be dug into the quarters where the Calceolarias are to be planted. Failing this, incorporate with the garden soil a good dressing of well-decayed manure. In warm and dry beds and borders copious applications of water should be given rather frequently during the summer. It may be news to some readers who are beginners that the Calceolarias succeed very well in shady beds and borders. Eelworms are a source of trouble in some soils, but they may be eradicated by using Vaporite, Kilogrub, or similar preparations when the digging of the flowering quarters is done.

When the Calceolarias are planted this must be done in a firm manner. Always make holes of sufficient depth to embed the mass of roots of each plant satisfactorily, and see that the soil is made quite firm round about the roots. Plant in single rows in large beds, or alternately, as shown in Fig. 2, in other beds or borders. When grouped in masses the effect is good, and is worthy of being adopted where striking results are desired.

D. B. CRANE.

ANNUALS AFTER BULBS.

BULBS grown in borders where summer-flowering subjects are to be planted are lifted, discarded, or in due course replanted in other beds to furnish

flowers for vases another year. There are, however, thousands of bulbs that are left in the ground year after year. It is on such ground that many kinds of plants may be grown to give a nice display of blossom during the summer and early autumn months without in the least harming the bulbs. The "grass" of the latter must not be cut off prematurely, else they will suffer a serious check. The summer-flowering plants must be surface-rooting ones, and they should be put out quite at the end of the bedding-out season. The under portion of the "grass" of the bulbs, especially of the Narcissus, will have faded by the end of May, and this may be cut off, or, rather, pulled away. A considerable amount of soil space will thus be exposed, and on it plants may be put and seeds sown. Stocks and Asters, dwarf Marigolds, Godetias, Nasturtiums, Phlox Drummondii, Verbenas and similar plants are suitable. Seeds of Mignonette, Poppies, Night-scented Stock (Matthiola bicornis) and Virginian Stock, if sown early in June, will germinate quickly, and the resultant plants afford a nice display of blossom throughout the latter part of the summer and the early part of autumn. The surface soil will be dry, of course, but the watering necessary for the sustenance of the summer-flowering plants will not interfere with the due ripening of the bulbs below. It will be wise to put on a good surface dressing of loam, leaf-soil and a small quantity of manure, mixed, for the benefit of the new plants. In due course the remainder of the "grass" of the bulbs can be removed when it parts readily from the soil.

AVON.

HOW TO FEED PLANTS IN POTS.

THE roots of plants growing in flower-pots are, of course, confined to a small quantity of soil; and though plants so grown may be kept alive for many years if very carefully watered, they will not make fine specimens nor bear flowers satisfactorily. It is, however, possible to retain large plants in comparatively small pots by judicious feeding. I am not entering here into the question of the various artificial manures suitable for the different kinds of plants, as the subject is too important to be dealt with in a few words, but to the general principles on which plants in pots must be fed.

In the first place, the inexperienced cultivator must learn to wait until every plant has made a good number of roots before applying manure-water from tanks or artificials either in a dry or liquid form. The condition of the roots can be ascertained by turning the ball of soil out of the pot; if plenty of roots can be seen and they are beginning to mat together, feeding will be advisable and beneficial. If the plants have not had their final shift and the roots are plentiful, repotting must be done in preference to any feeding.

The feeding should commence when the roots have thoroughly permeated the soil after the final potting has taken place. In every instance weak doses must be given at the start, and be gradually increased in strength until the full dose as advised in the special instructions given with the concentrated manures is reached. A change of manure is also beneficial. For instance, weak manure-water may be given for several days; then clear water for two days. Follow with approved artificial manures for a week; then give clear water during three days. Weak soot-water may be applied twice before any more artificials are given, and so on. The soil must always be in a moist state when manures are applied; if dry even the weakest doses of manure are apt to cause injury to the tender roots, a fact that many amateurs overlook.

SHAMROCK.

THE PARENTAGE OF ROSES.

(*Continued from page 243.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Charlotte Klemm	H.C.	Turke	1906	Alfred Colomb × Cramoisie Supérieure
Chateau de Gros Bois	N.	Laperriere	1908	Seedling Mme. P. Cochet
,, d'Ouvrant	Tea	Ketten	1906	Perle des Jardins × Camoens
Cheshunt Hybrid	H.T.	G. Paul	1873	Mme. de Tartas × Prince Camille de Rohan
Chin Chin	Ch.T.	Hobbies	1908	Sport Eugène Resal
Christian Curle	H.W.	Cocker	1908	Sport Dorothy Perkins
Christine Wright	H.W	Hoopes	1903	R. wichuraiana × Caroline Testout
Chromatella	N.	Coquereau	1843	Seedling Lamarque
Cibles	H.Rug.	Kaufmann	1894	R. rugosa rubra × Perle de Lyon
Claire Reynaud	H.P.	Oger	1867	Sport Baronne Prevost
Clairette Onoff	H.T.	Gamon	1902	Seedling Caroline Testout
Clara Pfitzer	P.P.	Soupert	1887	Mignonette × Marquise de Vivens
Clare	C.C.	(Italy) by Clare	—	R. indica × R. semperflorens
Clarice Juranville	H.T.	Corbœuf	1903	Seedling Caroline Testout
Claudius	H.P.	B. R. Cant	1909	Seedling C. J. Grahame
Clementine Ribault	H.P.	Ribault	1885	Seedling Marie Baumann
Clothilde Soupert	P.P.	Soupert	1887	Mignonette × Mme. Damaizin
,, Soupert	D.T.	Levet	1883	Seedling Gloire de Dijon
Coelina Dubos	D.P	Dubos	1849	Sport Rose du Roi
Colonel Chaverondier	H.T.	Ketten	1907	Mme. Abel Chatenay × Mlle. de Kerjegu
,, Leclerc	H.T.	P. Ducher	1909	Caroline Testout × Horace Vernet
Columbia	H.W.	Hoopes	1903	R. wichuraiana × Caroline Testout
Commandant Letourneux	H.T.	Bahaud f.	1903	Sport Josephine Marot
,, Laste	H.P.	Mille T.	1901	Seedling Eugène Fürst
,, Marchand	D.T.	Puyravand	1899	Seedling Gloire de Dijon
Commandeur Jules Gravereaux	H.P.	Croibier	1908	Frau Karl Druschki × Liberty
Comte Amede de Foras	Tea	Gamon	1900	Luciole × G. Nabonnand
,, Chandon	Tea	Soupert	1895	Lutea Flora × Coquette de Lyon
,, de Beaufort	H.P.	Boyan	1858	Seedling Eugène Appert
,, ,, Espremesnil	H.Rug.	Nabonnand	1882	Seedling R. rugosa
,, ,, Falloux	H.P	Standish	1863	Seedling Eugène Appert
,, ,, Flandres	H.P.	Leveque	1881	Seedling Mme. Victor Verdier
,, ,, Grivel	Tea	Levet	1871	Seedling Canari
,, ,, Montalivet	H.P.	De Mondevi.le	1846	Seedling William Jesse
,, ,, Raimbaud	H.P.	Rolland	1867	La Reine race
,, ,, Torres	H.T.	Schwartz	1906	Kaiserin Augusta Victoria × Mme Berard
,, ,, Wallis	H.T.	A. Schwartz	1900	Kaiserin Augusta Victoria × Mme. Berard
,, Henri Rignon	H.T.	P. Ducher	1888	Baroness Rothschild × Ma Capucine
Comtesse A. Kinsky	Tea	Soupert	1904	Mme. C. P. Strassheim × Mme. Dr. Jutté
,, Anna de Thun	Tea	Soupert	1888	Sylphide × Mme. Camille
,, A. d'Outremont	P.P.	Soupert	1899	Mignonette × Luciole
,, Bardi	Tea	Soupert	1896	Rêve d'Or × Mme. Lambard
,, Cahen d'Anvers	H.P.	Ledechaux	1885	Seedling La Reine
,, de Barbantanne	B.P.	Guillot p.	1851	Seedling Reine des Iles Bourbon
,, ,, Beaumetz	N.	Nabonnand	1876	Seedling Chromatella
,, ,, Camondo	H.P.	Leveque	1880	Seedling General Jacqueminot
,, ,, Frigneuse	Tea	Guillot	1885	Seedling Mme. Damaizin
,, ,, Hinnisdal	H.P.	Mille T. f.	1910	Louis Van Houtte × John Hopper
,, ,, Noghera	Tea	Nabonnand	1901	Reine Emma des Pays-Bas × P. Nabonnand
,, ,, Paris	H.P	Leveque	1882	Victor Verdier race
,, ,, Ruffi de Roux	Tea	Nabonnand	1901	General Schablikine × André Schwartz
,, ,, Saxe	Tea	Soupert	1904	Leonie Osterieth × Souv. de Mme. E. Verdier
,, ,, Serenyi	H.P.	Lacharme	1874	La Reine race
,, ,, Vitzthux	Tea	Soupert	1891	Adele Jougant × Perle des Jardins
,, Dusy	Tea	Soupert	1894	Innocente Pirola × Anna Olivier
,, Emmeline de Guigné	Tea	Nabonnand	1903	Papa Gontier × Comtesse Fest. Hamilton
,, Felicie de Morgues	H.P.	Pernet p.	1866	Seedling Victor Verdier
,, Icy Hardegg	H.T.	Soupert	1907	Mrs. W. J. Grant × Liberty
,, Laure Saurma	Tea	Nabonnand	1899	Isabelle Nabonnand × Mme. Charles
,, Riza du Parc	Tea	Schwartz	1876	Seedling Comtesse de Labarthe
,, Sophie Torby	Tea	Nabonnand	1901	Reine Emma des Pays-Bas × Archiduc Joseph
,, T. Ouvaroff	Tea	Soupert	1897	Mme. Lambard × Luciole
Conrad F. Meyer	H.Rug.	Müller	1899	Gloire de Dijon × Duc de Rohan × Germanica
,, Strassheim	H.T.	Soupert	1901	Caroline Testout × Charles Darwin
Constant Lusseau	H.P.	Trouillard	1864	Seedling Geant des Batailles
Contessa Cecilia Lurani	H.T.	Brauer	1908	Kaiserin Augusta Victoria × Principessa di Napoli
Coquette Bordelaise	H.P.	Duprat f.	1896	Sport Mme. G. Desse
Cornelia Cook	Tea	Cook	1855	Seedling Devoniensis
Corona	H.T.	W. Paul	1904	Seedling White Lady
Countess Cairns	H.T.	W. Paul	1904	President × Caroline Testout
,, of Oxford	H.P.	Guillot	1869	Victor Verdier race
Cumberland Belle	Moss	Dreer	1900	Sport Princesse Adelaide
Cyclope	P.P.	F. Dubreuil	1909	Seedling Mme. N. Levavasseur
Daisy Hill	Mac.	T. Smith	—	R. gallica × R. canina × Desportes
Daniel Lacombe	M.S.	Allard	1886	Seedling R. multiflora
,, Lesueur	H.Rug.	Gravereaux	1908	Pierre Notting × Safrano × R. rugosa
Danielle Dumour	H.T	Laroulandie	1909	Sport Caroline Testout
Daybreak	H.W.	Dawson	—	R. wichuraiana × Crimson Rambler
De Meaux	Pom.	—	—	Sport Spong
Defiance	H.T.	Hill	1908	Lady Battersea × Grüss an Teplitz
Delices de Jerkschot	H.T.	Versteeg	1908	Lady M. Fitzwilliam × Victor Hugo
Desiré Bergera	H.W.	Barbier	1909	R. wichuraiana × Aurore (Ch.)
Deutschland	Pern.	Kiese	1909	Frau Karl Druschki × Soleil d'Or
Diabolo	H.W.	Fauque	1908	R. wichuraiana × Xavier Olibo
Die Dahme	H.T.	—	1907	Pierre Notting × Caroline Testout
,, Wuhle	H.T.	—	1909	Alfred Colomb × Kaiserin Augusta Victoria
Direktor W. Cordes	H.T.	Lambert	1904	Charles Margottin × Papa Gontier
Distinction	H.T.	Bennett	1882	Mme. St. Joseph × Eugénie Verdier
Domkap. Dr. Lager	H.T.	Lambert	1903	Caroline Testout × Princesse de Bassaraba
Dora	H.T.	W. Paul	1906	Antoine Rivoire × General Jacqueminot
Dornroschen	H.T.	Welter	1907	Kaiserin Augusta Victoria × Souv. de C. Guillot
Dorothea Soeffker	H.T.	Welter	1899	Marie van Houtte × Mme. Lambard
Dorothy	H.T.	H. Dickson	1905	Seedling Caroline Testout
,, Dennison	H.W.	Dennison	1909	Sport Dorothy Perkins
,, Perkins	H.W.	Perkins	1901	R. wichuraiana × Mme. Gabriel Luizet
Dr. Albert Moulanguet	Tea	Ketten	1900	Safrano × Gloire de Deventer
,, Andry	H.P.	E. Verdier	1864	Seedling Charles Lefebvre
,, Baillet	Tea	Corbœuf	1903	Dr. Grill × Christine de Noue
,, Eugène T. Leita	Tea	Ketten	1899	Isabelle Nabonnand × Comtesse de Caserta
,, Georges Martin	H.P.	G. Vilin	1907	Prosper Langier × Ami E. Daumont
,, Guelliot	Tea	Ketten	1901	Adam × Comtesse Riza du Parc
,, Mulette	H.T.	Ketten	1903	Mme. Ravary × Johannus Wesselholt
,, Pouleur	Tea	Ketten	1897	Lady Zoe Brougham × Alphonse Karr

R. DANIEL, *Bristol.*

(*A key to the abbreviations will be found on page 231.*)

POPULAR TULIPS IN MY GARDEN THIS YEAR.

EVERY year, for some unaccountable reason, certain Tulips are more popular than others among the visitors who come to my garden. It is really very marked and almost uncanny why a variety which was hardly noticed either last year or the year before should suddenly become exceedingly popular and be the one that so many single out as something "rather nice." Yet so it is. In introducing the following list to my readers, the only remarks that I feel called upon to make are, first, that I grow a very large number of Cottage and Darwins—indeed, there are not many of the former of which I have not examples, if it is only three or six; and, secondly, that as practically all these tiny little lots are ignored by the average visitor, who simply walks round without microscopically examining them, they are not brought into the competition, which is thus confined to those varieties of which I have sufficient to make a distinct patch of colour. This accounts for the non-inclusion of such beauties as Royal Visit, Mauve Clair, Audley, The President, City of Haarlem, Marksman, Florizel, Lady of the Lake and gesneriana spathulata.

THE LIST.

Doris. I begin with this. It is *the* awful example of all. Four out of five walkers-round have gone for it as one of the very best. It is a tall grower, with a rather long-shaped flower of rosy mauve and lavender colouring, and of loose, graceful form. Eurasian I couple with it. In many ways it is its counterpart, with the lavender changed to a pale shade of chrome or Indian yellow. Feu Ardente is an early May flowerer, and is in full bloom when many are only expanding. What a fine thing it is, and what a good laster! Before it is over it has become a regular old man. As a hundred year old man in my parish once said to me, "I aint given to dying like other folk"; but his turn came, and so the turn of Feu Ardente came, but not till it had seen many come and go. The massive currant red flowers had become a regular landmark, and were much missed when the end came. Here again I couple with it Moralis, a Darwin of graceful shape and large size, and of very distinct colouring. Purple seen through fine white gauze is about as near as I can get in describing it. Also Zanzibar. Cut off the flower with 2 inches or 3 inches of stem, put it on a flat foot, set the whole on a table, and you have a glass of old port. I have grown it for many years, and my verdict every season is the same—one of the best of all the darks for standing without becoming spotted. Two others that have come through the present trying season very well are Isis, a large and magnificent blood red Darwin with a delightful blue base edged all round with white, and Zulu, a six foot six among Tulips, of the richest and deepest plum purple, coated over with a faint bloom like one gets on fruit.

All these very dark kinds are not among the most popular ones, and when Velvet King, a huge reddish purple with a light base, and The Bishop, a little-known true purple with its inner petals toning off to a very much paler shade, are mentioned, I have named those most generally noticed. For purposes of comparison I planted last autumn John Ruskin, Fairy Queen and Beauty of Bath side by side in one long bed. It has been admired, I can tell you; but whether the long, egg-shaped blooms of the first, with their refined and delicate pink and yellow colouring, or the even larger and still more delicately shaded Beauty of Bath carried off the palm, I am unable to say. Each of the two had many admirers, but the much older rosy mauve and buff Fairy Queen had some who even thought it the best of the three. J. JACOB.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Sweet Peas and Vieusseuxia (*C. B.*).—Your late-planted Sweet Peas will require no stopping, and there is no real gain, in any case from the gardening standpoint, in so doing. The Sweet Pea is a climber naturally, and provides a remarkable profusion of flowers when the plants are grown unchecked from the start. The other genus named is now included under Moræa, and is nearly allied to the Iris, the so-called Peacock Iris, Moræa glaucopis, being one of the most popular. They are mostly natives of the Cape of Good Hope, and require cool greenhouse treatment, or at least that of a warm and sunny frame. This, in conjunction with a thorough maturing and ripening of the bulbs with a fairly long rest, are among the essentials to success. Grow in light, sandy, well-drained soil.

Cutting down Sweet Peas (*Pruner*). — The length of stem—16 inches to 18 inches—mentioned on page 179 has no reference to the stems of the plant itself, but applies strictly to the flower stem or stalk. In no circumstances whatever must you attempt to keep the plants dwarf. Such a course would spell poor flowers in limited numbers.

Dictamnus (*A. B. P.*).—In all probability the seeds have been infertile, and even good seeds are slow in vegetating. If you have plants at your command, you might hand fertilise the flowers in the hope of securing better seeds. The latter should be dried for a few weeks, and then sown in pots or pans of sandy soil. The difficulty is with the seeds, not with the manner of sowing.

Hepatica and moss (*A. B. P.*).—The most probable cause is the presence of undue moisture or this in conjunction with uncongenial surroundings, such as lack of aeration and the like. Ineffective drainage may also give rise to the same thing, and once the moss has sown itself in the tufts, a new crop follows just as day follows night. The only remedy is by hand picking. You might also divide the tufts and water-wash all soil and seeds from the crowns before replanting them.

Sweet Peas (*V. C.*).—Your question is impossible to answer with any degree of accuracy. Some few varieties are vigorous practically everywhere, but others vary greatly with the soil and climate of the district in which they are grown. Again, the cerise varieties are all on the weak side, and one could scarcely claim special strength for the scarlets. You could, however, try the following varieties: White—Florence Wright and Nora Unwin; blush—Mrs. Hardcastle Sykes and Elfrida Pearson; rose and carmine—John Ingman and Marjorie Willis; cerise—Chrissie Unwin and Lord Northcliffe; pink—Countess Spencer and Pink Pearl; orange shades Edna Unwin Improved and Helen Lewis; yellow and buff—Clara Curtis and Mrs. Collier; blue—Zephyr and Lord Nelson; crimson—King Edward Spencer and King Edward; scarlet—Doris Burt and Scarlet Monarch; mauve—Tennant Spencer and Mrs. Walter Wright; maroon—Douglas Unwin and Black Knight; lavender Nettie Jenkins and Asta Ohn; stripes and flakes Mrs. W. Unwin and Senator Spencer; picotee-edged Mrs. C. W. Breadmore and Phenomenal; marbled Helen Pierce and Marbled Blue; bicolor—Arthur Unwin and Mrs. Andrew Ireland; fancies—Eric Harvey and Gladys Burt; cream pink—Mrs. Routzahn and Mrs. Hugh Dickson.

ROSE GARDEN.

Crimson Rambler failing (*O. W.*).—From the description of the Crimson Rambler it looks as though you had not pruned away the old wood. This Rose should have the old growths cut away that flowered last year, and this is best done soon after flowering, which encourages the production of young growths to furnish the flowering wood for next season. We also think the plants need feeding. Have the soil broken up with a fork; then cover the surface with some good farmyard manure. Water over this liberally twice a week, and early next month give each of the plants a bucketful of good liquid manure made from cow-manure or from a good substitute, such as Wakeley's Hop Manure. Frequently Rambler Roses suffer from drought, as, being against a fence or wall, rain does not help them much. Spread out the growths as much as you can. The Dorothy Perkins over the arch wants some help also. Make a few holes with a crowbar to a depth of about 2 feet; then pour in good liquid manure. Afterwards treat as advised for the Crimson Rambler.

Best wichuraiana Roses for pergolas (*A. W. J.*).—The following are the best of each colour: White—White Dorothy, Schneeball; pink—Dorothy Perkins, Coquina blush—Lady Godiva, Débutante; rose — Minnehaha, Lady Gay; cream—Alberic Barbier, Jersey Beauty; yellow—Gardenia, Shower of Gold; bronze—René André, Leontine Gervais: scarlet—Hiawatha, Excelsa; buff—Elise Robichon, Paul Transon.

Roses and Honeysuckle for summer-house (*A. W. J.*).—As you cannot plant in the surrounding gravel, you must either plant in tubs or large pots. We should recommend tubs of about 2 feet in depth and about 1½ feet in diameter. Have three or four holes of about 1 inch in diameter drilled in the bottom, then put in some crocks or oyster shells to a depth of about 3 inches. On the crocks place some rough pieces of turfy loam with the grass downwards, then fill the tubs to within 3 inches of the top with a good compost. Give them a good soaking, then turn out of the pot, remove crocks, just release the bottom roots and plant firmly in the tubs. Mulch the surface soil with well-rotted manure, and after a few days give a good watering. See that the tubs do not get really dry throughout the summer. It would be best to stand the tubs on three bricks laid on their flat side.

KITCHEN GARDEN.

Soot and wood-ashes for kitchen garden soil (*Annual Subscriber*).—Both these manures are rich in potash, and as you say that your soil has already been manured with farmyard manure, which contains phosphates and nitrogenous manure in fair proportions, your best way of applying these manures to your kitchen garden soil will be by mixing them together and spreading the mixture over the surface of the soil after it has been dug, then forking it in to the depth of about 3 inches. If you have a large quantity, it may be applied with advantage at the rate of two good handfuls to the square yard; but if the supply does not run to this, one handful must suffice.

Injury to Peas (*Devon*).—The beetle found damaging the Pea is known as the Pea weevil, a pest which often does considerable damage to Peas and Beans, and sometimes also to Sweet Peas, by eating the edges of the leaves. Clover is also attacked. The larvæ are tiny white maggots, which feed upon the roots of the same plants, and frequently do much damage in this way. The eggs are laid in the earth close to the root of the plant, and the perfect beetles hibernate in stubble, rubbish, &c., a second brood appearing in May or June. Some larvæ also hibernate and become perfect beetles in May or June. A rough surface to the soil favours the pests, for they hide under the clods in wet or cold weather. The surface of the ground around the Peas should be consolidated, or fine soil may be used for covering along the rows. Paraffin emulsion may be used with advantage, and possibly the use of one or other of the soil fumigants would drive away the beetles.

MISCELLANEOUS.

Names of plants.—*W. H., Hull.*—Tulip Picotee, an inexpensive variety.——*C. B. B.*—Strobilanthes dyerianus. ——*Connaught.*—Saxifraga granulata flore-pleno.——*John Brown.*—1, Tiarella cordifolia; 2, Claytonia sibirica; 3, Eriogonum species (send in flower); 4, Omphalodes verna alba.——*A. C. G.*—Pulmonaria officinalis.——*J. W. Young* —Piptanthus nepalensis and Helxine Solierolii.——*R. A.*— The tree is Prunus Padus (Bird Cherry); blue flower, Anchusa sempervirens; and the other is Symphytum tuberosum. ——*J. Wynn.*—1, Tiarella cordifolia; 2, Geum hybridum; 3, Corydalis lutea; 4, Chelidonium majus; 5, Linaria Cymbalaria ——*Rhagatt.*—1, Lonicera involucrata; 2, the Foam Flower (Tiarella cordifolia).——*Foreman.*—Prunus Padus.

SOCIETIES.

HORTICULTURAL CLUB.

GLIMPSES OF MOROCCO AND THE CANARY ISLES.

ON Tuesday, the 10th inst., at the Hotel Windsor, this club held its usual monthly dinner under the chairmanship of Mr. Harry J. Veitch, V.M.H., and afterwards Mr. T. Ernest Waltham gave a very interesting lecture entitled as above, and illustrated by about 100 lantern slides of great beauty and clearness, commencing with a number taken in Madeira, Teneriffe and elsewhere depicting the peculiarities of the inhabitants, the vegetation and the scenery, which in its sub-tropical aspect was often of great beauty, involving plantations of Bananas, Date Palms, &c. Morocco next appeared upon the scene, local colour being supplied in the foreground by the lecturer himself being clad in a typical burnous and fez, and armed with a native gun, which was probably far more formidable in appearance than effective at long range, while a curved dagger added materially to the warlike effect. The numerous slides, while, by their excellence, giving a vivid idea of the picturesqueness of the native costumes and the generally arid nature of the country, also conveyed a conviction that the natives themselves were of a very debased order of civilisation, the treatment of the women and their general intolerant behaviour towards foreigners demonstrating clearly what a terrible bar to true progress and humanity is the Mohammedan religion in places where other influences are debarred from working. So much is this the case that, even in these days, travelling in the country is attended with innumerable risks owing to the hostility of the natives to the Christians, or, indeed, to all foreigners, and the risk these latter run of unwittingly infringing some religious restriction, and of consequently being stoned or even murdered. In a country where to be merely mad is to be deemed a saint, the vicinity of whose tomb, or even of a tree under whose welcome shade it lies, no Christian is permitted to approach, it is obviously difficult for common-sense to obtain a foothold. Sanitation is absolutely unknown, loathsome diseases prevail amid the filth and the fleas, and progress through the narrow, evil-smelling gangways, which do not merit the name of streets, means practically shouldering one's way through a crowd of beggars whose very vicinity is pollution. In short, the more this state of things was brought before the audience, the more one marvelled at the boldness of travellers who persist in traversing such inhospitable countries, both in pursuit of knowledge and in the desire of, in some way, ameliorating the conditions they find there. Here and there, thanks to such, a ray of light had penetrated, and groups of cheerful little pupils of established missions gave evidence of some success. As, however, our friends the French are now experiencing, attempted civilisation is bitterly resented, and no opportunity is lost of what the natives doubtless consider as a religious crusade or "Jehad" against the infidel, too often with most tragic results. Following the Moroccan views, Mr. Waltham supplemented his lecture with a number of others, depicting home scenes and alpine and other flowers in their native habitats, many of them in their natural colours. Mr. Harry J. Veitch, in conveying a hearty vote of thanks to the lecturer, adverted to his own visit to the East, not indeed to Morocco, but to Palestine, where similar patriarchal conditions prevail, on somewhat milder lines perhaps, but still based upon an intolerance which renders the visitor subject to insult and even injury.

NORTH OF ENGLAND HORTICULTURAL SOCIETY.

IN the Emmanuel Hall, Leeds, the above society held the third of the series of monthly meetings on the 17th inst. It proved to be the most successful yet held, both from the exhibitors' and spectators' point of view. The outstanding feature was the rally of the nurserymen in the North, and undoubtedly all the leading firms will in time consider it part of their business to exhibit at one or more of the meetings during the year. Major Dent, chairman of the council, together with the members and various officers of the council and committees, are all working hard in conjunction with the able secretary, the Rev. J. B. Hall, to ensure success to the undertaking.

Messrs. Sutton and Sons, Reading, exhibited a large collection of seasonable vegetables and salads, and demonstrated the importance and utility of British intensive culture. Among the produce choice varieties of the firm's own raising were noted of the following: Cauliflowers, Cabbages, Chicory, Lettuce, Potatoes, Cucumbers, Tomatoes, Seakale, Mushrooms, Kidney Beans, Turnips, Carrots, Rhubarb, &c. Tulips were also included in the exhibit. Large gold medal.

Messrs. Bath, Limited, Wisbech, showed a group of Tulips, including many leading varieties. Scillas and Narcissi were also represented, together with a choice strain of seedling Pansies. Silver-gilt medal.

A large rockery was erected by Messrs. Clibrans, Altrincham. It was beautifully arranged with Gentiana acaulis in the central bay. Several varieties of the Phlox setacea type were also noted, together with Saxifrages, Aubrietias, Violas, Alyssum, Trilliums and Androsaces. Viola pedata bicolor, Dendromecon rigidum and Aubrietia Mrs. Lloyd Edwards were especially good. Silver-gilt medal.

H. G. Pickersgill, Esq., Leeds (gardener, Mr. Donoghue), embellished the central platform with large specimens of stove and greenhouse plants, including Crotons, Dracænas, Palms, &c., also many flowering plants. The exhibit was arranged with taste, and was awarded a silver-gilt medal.

Messrs. R. P. Ker and Sons, Liverpool, showed hybrid Rhododendrons, including such varieties as Pink Pearl and Cynthia. Tulips were also included, and the exhibit received a silver medal.

A large stand of Violas was staged by Messrs. W. Artindale and Son, Sheffield. A beautiful dark velvety blue was noted in Edina. Grieve's Yellow, with fringed petals, was also another out of the many varieties noted. May-flowering Tulips also formed part of the exhibit. Silver medal.

Mr. W. Lawrenson, Yarm-on-Tees, showed large vases of Carnations, which included a white seedling of good form and substance named Snowstorm; also rambling Roses in pots and alpines, including Primula bulleyana, P. Unique and others. A silver medal was awarded.

A group of miscellaneous plants was shown by Messrs. E. J. Batchelor and Sons, Harrogate, including Nephrolepis, Coleus, Ericas, Carnations, &c. Cut Carnations were very good. Silver medal.

Herbaceous cut flowers and alpines in pots were staged by Messrs. G. Gibson and Co., Bedale, and the following were represented: Phloxes, Aquilegias and Verbascums, among others. Anthemis cupiana was an outstanding feature. Silver medal.

Messrs. Cypher and Sons, Cheltenham, again exhibited Orchids. An attractive display was made. Miltonia vexillarium, Cypripediums, Cattleyas, Odontoglossums and various species of Masdevallia were included, and the exhibit received a silver medal.

Another collection of Orchids came from J. H. Craven, Esq., Keighley (gardener, Mr. F. Corney), and included choice Lælio-Cattleyas, Odontoglossums and Cypripediums. A fine plant of Renanthera imschootiana received a special cultural commendation. Silver medal.

Mr. F. J. Bell, Whitley Bay, showed a choice collection of Violas, and made a nice display with the variety Lord Nelson. Evelyn Bell, one of the firm's seedlings, was pretty. Large bronze medal.

Messrs. W. and J. Brown, Peterborough, made a meritorious display of Verbenas, Marguerites, Heliotrope Lord Roberts and Lilac. Large bronze medal.

Alpines in pots and beautiful Acers were displayed by Mr. A. J. Hall, Harrogate, together with a new bedding Geranium named Coronation. Bronze medal.

Messrs. Dickson and Robinson showed various herbaceous flowers, including Tulips, Heucheras, Verbascums and Trollius. Vote of thanks.

A small rockery was erected by Mr. J. Wood, Boston Spa, and embellished with such interesting subjects as Androsaces, Cytisus, Saxifrages and Iris cristata. Bronze medal.

Messrs. E. J. Harkness, Bedale, Yorks, showed a collection of Trollius, including several new varieties of immense size, such as Elsie Harkness and Derby Day.

Mr. J. E. Sadler, Newbury, Berks, staged a small collection of valuable Orchid specimens, *e.g.*, Cypripedium bellatulum, C. b. Queen of Spain and C. b. Exhims. Vote of thanks.

Rambling Roses in pots, hybrid Calceolarias, Carnations, Ferns, &c., were shown by Messrs. Aldis and Rowntree, Leeds. Vote of thanks.

Mr. H. Hemsley, Crawley, exhibited Myosotis alpestris Marie Raphael (new). This is a pretty variety, with a white stripe through each petal. Choice varieties of alpines were also represented.

A collection of horticultural sundries was staged by Messrs. W. Wood and Sons, Wood Green, London.

ORCHID COMMITTEE AWARD.

Third-class diploma to Lælio-Cattleya canhamiana, from W. Mathieson, Esq., Horsforth (gardener, Mr. R. B. Gilchrist).

PLANT AND FLORAL COMMITTEE AWARDS.

First-class diplomas to Anthurium scherzerianum maculatum, from Sir J. Ramsden, Bart., Ferrybridge (gardener, Mr. G. Taylor); and Carnation Snowstorm, from Mr. W. Lawrenson, Yarm-on-Tees.

Second-class diplomas to Myosotis alpestris Marie Raphael, from Mr. H. Helmsley, Crawley; Trollius Derby Day and Elsie Harkness, from Messrs. Harkness, Bedale; Aubrietia Mrs. Lloyd Edwards, from Messrs. Clibrans, Altrincham; and Auricula Sulphur Queen, from Sir J. Ramsden, Bart.

The scientific committee also met, and was presided over by Professor Seaton.

During the afternoon Dr. Woodhead, Huddersfield, lectured on "The Distribution of Plants," and illustrated it with many beautiful lantern slides

THE NATIONAL SWEET PEA SOCIETY'S FLORAL COMMITTEE RULES.

A SPECIAL general meeting of the members of the above society was held at the Hotel Windsor, Victoria Street, Westminster, on the 18th inst., when the committee submitted the new floral committee rules which have been drawn up. The meeting was poorly attended, and at times the proceedings were of an almost farcical character. After the vast amount of time which has been devoted by the committee to this question, the floral committee may be, in constitution, practically the same as it has been, almost every regulation that tended to alter its constitution and work being rejected by small majorities. Copies of the proposed new rules have been sent to every member of the society, and we give below the amended rules as passed by the special general meeting:

1. The floral committee shall be elected annually from the members of the society by the general committee by ballot. Written nominations from members of the general committee must be sent to the secretary of the society at least fourteen days before the meeting when such election takes place.
2. The floral committee of the National Sweet Pea Society shall consist of nine members of the society.
3. The floral committee shall elect one of its own members annually by ballot as its chairman.
4. The floral committee shall visit the society's trials at least twice annually, the visits to be made before the visit of the general body of the members.
5. No member of the society shall visit the society's trials until the floral committee has completed its task, unless instructed or authorised to do so by the general committee.
6. The secretary of the society, after consultation with the trials superintendent, shall convene the floral committee, and shall give five clear days' notice to the members.
7. Each member of the floral committee shall be furnished with a card bearing his or her name, the number of the Sweet Pea trial and a division for voting. When a proposition for an award is made by any member of the committee, the members may put a cross in the division reserved for voting. The cards will then be collected and banded. The trials superintendent and the secretary of the society will then check over the voting cards, and if it is found that any member has voted for a variety in which he has any financial interest, the vote shall be struck out. On the occasion of further visits, the members of the committee shall be furnished with a new set of cards, be informed of the result of the previous voting, and be asked to confirm, modify or alter the same. Lists of the names and sources of the novelties shall not be handed to the floral committee until the inspection is completed. The result of the voting having been duly ascertained in accordance with Rules 9, 10 and 11, a record of the same shall be entered by the chairman in his book.
8. A numerical register of the varieties at the society's trials shall be prepared for the use of the floral committee, and it shall be the duty of the chairman to enter the remarks of the members of his committee therein.
9. The silver medal of the society shall be provisionally awarded to a variety securing the unanimous votes (by ballot on cards provided for the purpose) of the members present. The variety which at the time appears worthy of the distinction shall be reserved for the medal, and the medal shall be finally awarded the following season at or before the London exhibition if the variety has kept true to type and colour.
10. The first-class certificate of the society shall be awarded to any variety securing seven-ninths of the votes of the members present.
11. The award of merit of the society shall be made to any variety securing a clear majority of the votes of the members present.
12. Before awards are made or confirmed, the varieties selected shall be put before the floral committee in a bunch of sprays and compared with the variety at the head of its particular colour class, where possible, also in a bunch of sprays of equal proportion.
13. The floral committee shall bracket varieties which it considers to be identical as growing at the trials.
14. The floral committee shall also prepare a list of too-much-alike varieties, irrespective of whether they have been grown at the trials or not.
15. The floral committee shall indicate, in order of merit, the three varieties it considers best in each class.

Rules 4 and 14, as proposed by the committee, have been eliminated, and the present Rule 14 is an entirely new one, proposed and passed at the special general meeting.

"Country Life" for May 27 contains, among other articles, an illustrated account of "Ardkinglas, Argyllshire"; "Tale of Country Life: The Enchanted Orchard," by Lady Margaret Sackville; "In the Garden: A Wild Fern Garden" (illustrated), by Gertrude Jekyll; "Weasel-hounds" (illustrated), by Sophy Herapath; "Bird Photography" (illustrated), by Francis Heatherley; "Poem: To My Racquet," by V. H. Friedlaender; "Sale of the Late Colonel W. F. Tipping's Silver," by C. J. Jackson.

ERRATUM.

THE Narcissus described on page 242 under "New Plants" should be named Sonata instead of Socrates.

CATALOGUES RECEIVED.

Messrs. William Artindale and Son, Sheffield: Revised List of Hardy Plants.

Messrs. Cartwright and Goodwin, Kidderminster: Over seas and Preliminary List of Daffodils and Narcissi.

Messrs. James Veitch and Sons, Limited, Chelsea: Dahlias

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden W.C.*

NEW PLANTS AT THE TEMPLE SHOW.

IT is at the Temple Show that we look for the new plants of the year, and rarely are we disappointed. This year there were a large number staged for certificates, and below will be found descriptions of those which received recognition by the committee.

Davidia involucrata.—After years of patient waiting, this remarkable tree, introduced to European gardens through the agency of Mr. E. H. Wilson when plant-collecting in Hupeh, China, for Messrs. James Veitch and Sons, Limited, Chelsea, in 1903, is now flowering for the first time in this country at the firm's Coombe Wood Nursery, Kingston Hill. At the Temple Show, where examples were displayed, the plant, more or less familiar to some by reason of the exhibited dried specimens of the past, excited unbounded interest. Obviously the plant is full of vigour and freedom of growth, and when to these are added a maturer age and larger specimens, park and garden landscapes will be endowed and enriched with one of the most remarkable hardy flowering trees of this or any other time. That the plant is absolutely hardy is a most valuable factor in the case. The dark green leaves are between those of the Lime and Mulberry, the large white bracts, like floppy Begonia petals, dangling in pairs from the spur growth of the past season. First-class certificate.

Each of the following received an award of merit:

Haberlea Ferdinandi Coburgi.—A distinct and pretty addition to this small genus. The leafage is longer and the flowers are of a somewhat paler purple blue than the better-known H. rhodopensis.

Lewisia (*Calandrinia*) *Cotyledon.*—This remarkably beautiful alpine has rosettes of leaves approximating to Saxifraga Cotyledon, except that they are much more fleshy in texture and waved or undulated. The rosettes of leaves are 3 inches to 4 inches across, of a clouded glaucous green. The fleshy flower-stems are about 6 inches high, freely forked or branched at their summit, the branches bearing nine to ten petalled flowers coloured a clear rose and broadly margined with rosy white. The number of flowers vary from four to twice that number on each stem, and as good flowering plants yield many stems, the new-comer is calculated to make a pretty display. It is a native of the Siskyon Mountains of Northern California, where it is found on rocky slopes; but, like other Lewisias, will need the drier positions of the rock garden, or possibly frame protection in winter. Both the foregoing were shown by Mr. G. Reuthe, Keston, Kent.

Azalea Duchess of Portland (mollis × sinensis).—A variety of great colour delicacy and beauty, pink and cream in delightful combination prevailing. From Messrs. R. and G. Cuthbert and Son, Southgate, N.

Rose Portia (H.T.).—A large and handsome flower of flesh pink and white, with great substance of petal. (See illustration on page 261.) From Messrs. William Paul and Son, Waltham Cross.

Rose Sylvia.—A perpetual-flowering rambler, the flowers of which are very pretty, double and pure white, with a delicious fragrance. From Messrs. William Paul and Son, Waltham Cross.

Azalea sublanceolata.—The flowers are of rose pink and self-coloured, freely produced and of large size. From Mr. R. C. Notcutt, Woodbridge, Suffolk.

Rhododendron Corona.—The flowers of this new-comer are arranged in a pyramidal truss, and individually not of large size, their rosy carmine colour, with white shading on the three inner petals, rendering the variety beautiful and distinct. The spots usually found inside these flowers are absent in this variety. We think highly of this lovely plant. From Messrs. J. Waterer and Sons, Bagshot.

Lilium tenuifolium Golden Gleam.—A pretty new garden Lily with all the characteristics of the typical species save that of colour, which is of apricot tone. The plant, however, is full of promise, and for freedom of flowering quite surpasses any tenuifolium Lily we have seen. The plants as shown were rather more than 2 feet high, but will apparently grow much taller. Shown by Messrs. R. W. Wallace and Co., Colchester.

Rhododendron Loder's White.—There appears to be little known of the origin of this plant beyond the fact that it is a chance seedling. The flowers are singularly pure in colour and the trusses produced with great freedom. From Mr. G. Reuthe, Keston, Kent.

Rhododendron Littleworth corallina.—The flowers are drooping, of large size, pale rose pink and flesh-tinted. As shown the

flowers were loosely arranged, the large drooping bells affording a pretty effect.

Rhododendron Glory of Littleworth.—A remarkable variety, giving showy cream, apricot blotched flowers in large compact heads. It appears to combine not a little of the colour harmony seen in Azalea mollis with the larger Rhododendron habit of growth and fine trusses. Both of the latter came from Miss Mangles, Seale, Surrey.

Oncidium Mülleri.—A new species to cultivation. It is quite distinct, but by no means brilliant or showy. The petals and sepals are white, slightly tinted magenta; the lip is purple. The flowers are about 1 inch in diameter and rather sparsely borne on long racemes. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

Odontioda lambeauiana.—This is one of the most brilliantly-coloured Odontiodas that has yet been raised. The sepals and petals are of a rich orange scarlet, with a golden crest. The flowers were rather small and of good form and substance. It is a bigeneric hybrid raised by crossing Cochlioda noetzliana with Odontoglossum lambeauianum. Shown by Messrs. Sander and Sons. First-class certificate.

Odontioda Bradshawiæ Gatton Park variety.—The flowers are of a beautiful orange tone, each with a golden crest and borne in a dense spike. With the exception of the golden crest the flowers are self-coloured. Shown by Sir Jeremiah Colman, Bart. First-class certificate.

Odontioda Coronation.—This is a remarkable hybrid from Belgium, which created quite a sensation among the Orchid specialists of this country. The flowers are of a scarlet hue in the centre, bordered with a broad white margin and edged with carmine. There was a difference of opinion in regard to its name, as it was brought before the committee as a variety of Odontioda Vuylstekeæ. In all probability Odontioda Vuylstekeæ is one of its parents. This wonderful hybrid is illustrated on page 260, where its strong and well-flowered spike is clearly depicted. Shown by M. Ch. Vuylsteke, Loochristi, Belgium. First-class certificate.

Odontoglossum Black Prince The Dell variety.—A handsome variety remarkable for its size and substance. The colour is chocolate brown, with a clear white edge. Shown by Baron Bruno Schröder, Englefield Green. First-class certificate.

Lælio-Cattleya Morningtoniæ.—A beautiful variety which received general admiration. The flowers, although not bold, are large and of pleasing colour. The petals and sepals are rather narrow; the lip is bright crimson and of perfect form. Shown by F. A. Wellesley, Esq., Woking. First-class certificate.

Odontoglossum amabile Empress of India. A large-flowering variety with broad, overlapping segments. Each flower is of grand form and of good substance. The colour is dull pale chocolate, with a white tip to the lip. Shown by Messrs. Sander and Sons. Award of merit.

Lælio-Cattleya Germanica.—This is one of the many beautiful Lælio-Cattleya hybrids shown by Messrs. Charlesworth and Co., Hayward's Heath. Parentage: C. Mendelii × L. Cappei. The petals are of a lovely golden colour, and the lip is purple suffused with golden yellow. Award of merit.

Oncidium Claesii.—This is a new species of special interest, since this is the first time that it has flowered in this country. The flowers are borne on a very long rambling spike many feet in length. The colour of the flowers, bronzy purple, is not particularly attractive. Shown by Sir Jeremiah Colman, Bart. Award of merit.

Cattleya Mossiæ G. M. Hale.—A highly-coloured variety of the ever-popular species. The petals and sepals are rosy mauve and the lip is deep crimson, with an orange yellow tone of colour on either lobe. Shown by Samuel Larkin, Esq., Haslemere. Award of merit.

Cœlogyne burfordense.—The flowers are pale green, each having a very dark, almost black lip, making a curious contrast to the rest of the perianth. It was raised by crossing C. pandurata with C. aspera. Shown by Sir Trevor Lawrence, Bart., Dorking. Award of merit.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 6.—Royal Horticultural Society's Meeting and Exhibition. Lecture at 3 p.m., by Professor A. C. Seward, F.R.S., on "The Past History of Conifers."

June 7.—North of England Horticultural Society's Show at Leeds.

June 8.—Société Nationale d'Horticultural de France (Paris) Exhibition.

North Lonsdale Rose Society.—This famous Rose society will hold its twenty-eighth annual exhibition at Swarthdale Park, Ulverston, on Wednesday, July 19. That this society is not restricted solely to Roses is shown by the fact that £5 and a gold medal are offered for a single bunch of Sweet Peas. The secretaries are Messrs. E. J. Harrison and F. W. Poole, County Square, Ulverston.

Hanley Horticultural Fete.—This year the Hanley Horticultural Fête bids fair to eclipse its predecessors. It has been arranged for Wednesday and Thursday, July 5 and 6, when over £600 will be awarded in prizes in addition to silver cups, gold and silver medals and other valuable special prizes. A handsome silver challenge cup will be presented by the committee for the best trade exhibit. Schedules may be had of the secretary, Mr. W. Poulson, Town Hall, Hanley.

The Gardeners' Royal Benevolent Institution.—The seventy-second annual festival in connection with the above institution was held in the Grocers' Hall, Prince's Street, City, on May 23, and we are pleased to be able to record that the amount subscribed was £2,410, or more than £400 in excess of last year's total. We have on more than one occasion referred to the excellent work that this institution has done and is doing among aged and infirm gardeners or their widows by granting them pensions, and we once again venture to appeal to our readers, all of whom we are sure enjoy their gardens, to render what support they can, financial or otherwise, to the institution, and so help those who in their happier days did so much to make our gardens beautiful. The secretary is Mr. G. J. Ingram, 92, Victoria Street, Westminster, and he will be pleased to furnish full particulars to anyone who will apply for them. A report of the festival proceedings will be found on page viii.

A special Rhododendron exhibition.—During the present week the Royal Horticultural Society's large hall at Vincent Square has been transformed into a palace of spring beauty by the remarkable and unique display of Rhododendrons arranged by Messrs. John Waterer and Sons, The American Nurseries, Bagshot. The name of Waterer has for many years been a world-famed one, especially in connection with Rhododendrons which they have done so much to improve. The exhibition to which we refer was opened on Tuesday, and remained open until Friday evening. Occupying as it did the whole floor space of the large hall, we were not surprised to learn that 1,000 Rhododendrons and about 2,000 other plants, such as Japanese Maples, Kalmias and Palms, had been utilised to create the effect. The varieties of Rhododendrons numbered about 100, these comprising many that are well known to most growers of these shrubs, as well as a number of newer varieties that have been raised by Messrs. Waterer at Bagshot. Among these latter were the beautiful Pink Pearl; Alice, a deep rose pink symmetrical flower quite free from the usual interior spots of dark colour; Mrs. E. C. Sterling, in shape similar to Pink Pearl and nearly the same shade of pink, but without the interior spots characteristic of that variety; and Gomer Waterer, a very beautiful extra hardy flower of white diffused rose colouring. Immediately opposite the entrance was an enormous plant of the fine old variety Lady E. Cathcart, standing 10 feet high and carrying 300 trusses of blooms. The groups of Kalmia latifolia, with their clusters of pink, tub-shaped flowers, added not a little to the interest and beauty of this unique display. As an indication of the amount of work such an exhibition as this entails, it may be well to mention that a special train of twenty-three trucks was required to bring the plants from Bagshot to London. Great credit is due to Messrs. Waterer for in this way bringing the beauties of these hardy shrubs before the public. In one of the annexes Messrs. Barr and Sons had a delightful display of rock and alpine plants, pygmy trees and herbaceous flowers, the Pyrethrums and Irises in the latter being exceptionally good. The other annexe was tastefully decorated with foliage and flowering plants by Messrs. Wills and Segar.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Removing ink from zinc labels.—As supplementary to your answer to "T. W." on the above subject (page 244), it may prove useful to "T. W.," and, incidentally, to other readers of THE GARDEN, to know that I have found that spirits of salts will quickly remove the ink, and at the same time clean the label until it is almost like new. A few drops on the surface, rubbed with a piece of cloth, is all that will be required to render the label usable again. Care, however, should be observed, both in using and storing the acid, as it is poisonous.—T. H.

Wild-flower competitions for school-children.—As a landowner on the Hampshire borders, I most cordially endorse the condemnation of wild-flower competitions as destructive of the rarer varieties of our wild flowers. Of the destruction of three somewhat rare kinds on my own property I can speak from experience, and I

know of a neighbour who has given up attempts to naturalise doubtful natives in his woods owing to the depredations of flower-pickers, some of them young ladies and their teachers, doubtless "cultured," but showing as little knowledge as "E. M., Hampshire," on the point that if you pick flowers and so stop plants reproducing themselves they will die out. Of the moral value of this modern craze for teaching (it is not education) by play, it is not the place to speak; but a cottage mother here expressed her opinion that cooking and needlework were more useful than "picking weeds." If wild-flower picking is to be allowed, it should only be for tasteful arrangement, and not for numbers of varieties, that prizes should be given, and the picking of rare species should lead to disqualification.—WEST SUSSEX. [This correspondence must now cease.—ED.]

Affiliation of allotment associations. I am not yet convinced that the Agricultural Organisation Society is not the right kind of society for helping small holding and allotment associations in their initial difficulties, although I have given very careful consideration to Mr. Morrell's reply in THE GARDEN for May 13. When we remember that scarcely three years have gone by since the passing of the Small Holdings and Allotment Act in 1908, we can only say that, taking all things into consideration and allowing for the difficulties such national upheavals are bound to bring in their train, the Agricultural Organisation Society has accomplished some really good work, to which no greater testimony can be cited than the large number of co-operative small holding and allotment societies that have affiliated themselves to the Agricultural Organisation Society, and the very genuine praise they accord it for the way it has assisted them in organising themselves on a business and co-operative basis. Again, I do not see why Mr. Morrell's association should object to affiliation with the Agricultural Organisation Society on the ground that some of its committee are nominated by the Board of Agriculture and Fisheries. That department, recognising the usefulness of the Agricultural Organisation Society, made a certain grant in money towards the furtherance of the society's work among the small holders, and, like any other business concern, stipulated for representation on the committee with the object of (*a*) seeing that those funds were properly administered, and (*b*) to get in closer touch with the people for whom the Parliamentary Act was framed, thus ascertaining their needs, without which the machinery of the Act cannot be worked to the best advantage of the small holder. By appointing six extra officials the Board of Agriculture has already shown that it realised one of its weak points, viz., the slow acquisition of land for applicants, caused by county councils, formed of large farmers and landowners antagonistic to the working-man and any aspirations he may have towards the uplifting and bettering of himself and those dependent upon him. All these things have been only too patent to the Agricultural Organisation Society, and it has done its part in trying to remove these stumbling-blocks to progress in small holdings and their acquisition. Mr. Morrell and his fellow-associates will do well to reconsider whether it will not yet be better to affiliate with the Agricultural Organisation Society, rather than risk the formation of another society which might not be so well equipped with funds, and so be rendered useless for progressive purposes from the outset. It should also be borne in mind that 99 per cent. of the new schemes that are inaugurated have to be content with a very "slow walk" before they command the position which "forces the pace."—J. C. WADD, *92, Moore's Road, Belgrave, Leicester.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANT-HOUSES.

EUPHORBIA PULCHERRIMA.—The earliest plants should now be ready for their final shift. Six-inch pots will be large enough, and a suitable compost will be two parts loam, one part leaf-mould, with a proportionate quantity of sharp sand and crushed bones. Continue to grow the plants in a warm, moist house, and shade during the hottest part of the day till they have become well established, when a cooler and drier atmosphere may be given them. Continue to pot on later plants as they become ready. A batch of cuttings may also be struck for flowering in small pots. These will be found very useful for furnishing the base of groups. Euphorbia jacquiniæflora may be potted into 5-inch pots in the same compost as the above.

Perpetual-flowering Carnations.—Shift these into their flowering pots before they become pot-bound. Seven-inch pots will be quite large enough for the most forward plants. The later plants may be given pots a size less. A suitable compost is good fibrous loam, leaf-mould (which has not been fermented), sharp sand, crushed bones and a little soot. Ram the soil moderately firm, place the plants in a light, airy house near to the glass, and shade them during the hottest part of the day till they have recovered from the effects of the shift. Care must be exercised when applying water till the plants are again well rooted. Pay timely attention to staking, and never allow the plants to become crowded or coddled for want of plenty of air.

Cyclamen.—Plants raised from seed sown last autumn will now be ready for potting into 5-inch pots. Much care is necessary in preparing the compost for this potting, the Cyclamen being rather particular in this respect. Good fibrous loam, Oak leaves which have not been fermented rubbed through a sieve, a little sheep-manure and old brick rubble broken up finely form an excellent compost. The drainage for the pots may also consist of broken brick rubble instead of crocks. Press the soil moderately firm. The plants may be placed in cold frames, plunging the pots in ashes near to the glass. Spray them two or three times a day with rain-water. Ventilate the pits carefully, especially when cold winds are prevalent. Later on, when the plants are established, the lights may be entirely removed on warm nights.

Primulas.—These may be placed in cold frames after their final potting and given much the same treatment as advised for Cyclamen in regard to their general management.

Bouvardias.—If it is intended to plant these out during the summer months, the border must be well prepared for their reception. The soil must be deeply dug and a quantity of well-rotted manure or leaf-mould mixed with it during the process of digging. Should the weather be hot at the time of planting, shade them during the hottest part of the day.

FRUIT GARDEN.

Early Strawberries Outdoors.—The warm, genial weather which was experienced during the greater part of May has been very favourable for the development of these, and there is every appearance that the fruits will ripen much earlier than usual It will be necessary to go over the beds occasionally and expose the fruits to the light. The beds must be covered with fish-netting to keep off birds.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

SUMMER BEDDING.—Preparations for bedding out should now be completed. During the actual work of planting a lot of untidiness is caused both in the flower garden and among the frames, and it is usually a relief when the last plant has been put in position and order again restored. Arrangements for the grouping and colouring of the various beds should have been made in advance; indeed, it is a wise plan to have such arrangements made the previous autumn, when a regular system of propagating only the necessary number of each subject can be followed during the spring months.

Arrangement.—Where the arrangement is left to the discretion of the gardener, he should always endeavour to anticipate and follow out the tastes of his employer, even if those do not entirely coincide with his own ideas, for often what appeals to one as a beautiful arrangement is not appreciated by another. Where a mutual good feeling exists, there is never any difficulty in the gardener being allowed to carry out a portion of his own ideas, and it is remarkable how soon he will, if willing, come to educate himself to the tastes of his employer. Summer bedding is, after all, controlled by fashion, which in gardening, as in everything else, is always changing.

Ribbon Borders.—The stiff ribbon borders and beds massed in solid colours are now seldom seen, although the latter have still their strong supporters where the beds are surrounded with expansive lawn. The modern fashion of blending different colours of varying heights in one bed has much to recommend it, and some pleasing results can be had which produce a much more interesting display than solid masses of one colour.

Planting.—Should the weather be hot and dry, do not allow the roots to be exposed a moment longer than is necessary; and should the beds require water, it is sometimes better to apply it before planting, especially if the plants used are seedlings removed from boxes without much soil attached. If the plants are started into growth without the aid of water, it is better to do without it altogether, for if watered during hot weather the soil becomes hard and baked, and watering must be continued daily until the natural conditions warrant its cessation. Cold water should never be applied direct from the spring water mains; it is better to allow it to stand for some hours exposed to the sun if a supply cannot be got from a river, which is much more beneficial.

Herbaceous Plants.—Many of these now need attention in staking. This requires an intimate knowledge of the height, habit and peculiarities of each plant to provide it with the proper length of stake. The stakes should be made to look as inoffensive as possible and disposed in such a way as to give proper support to the plant while themselves becoming invisible. As the plant reaches maturity, green-painted stakes or Bamboo canes dyed green, with green-coloured twine, are perhaps the least conspicuous materials to use. The shoots of all herbaceous plants should be thinned out freely, leaving only sufficient growths to form a good plant. By doing so the remaining growths are strengthened, and, consequently, furnish finer heads of flower. A top-dressing of thoroughly-decayed manure may be given to borders that show any signs of exhaustion.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE KITCHEN GARDEN.

SALADS FOR SUMMER.

How to Grow Them.

WELL-MADE salads are delicious during the hot days of summer, and the more tender the different kinds of plants are, the more they are appreciated. Although the plants are quick-growing naturally and very delicate, it is a fact that many of them are too tough, lacking that succulent quality which should distinguish them above everything else. Heat and moisture are the two chief essentials in the successful cultivation of these plants. In summer-time we have the necessary heat and we can supply the moisture at will. But both heat and moisture must be supplemented by a suitable rooting medium. In the springtime the cultivator rightly selects a warm, sheltered border, wherein nice plants are grown; but as the heat of the summer comes, it will be unwise to continue to grow salads in the same position. Fresh ground must be utilised, some plots quite in the open and with a south aspect, others near walls or fences and with north, north-west or north-east aspects. Where a deep friable loam exists, it will only need deep digging, pulverising and enriching with well-rotted manure; if shallow, poor soil obtains, then I advise the cultivator to shift a portion from one part to another and thus create deep beds. It pays to do this. Salad plants thrive well when there is a deep, moist rooting medium below their roots, and they reach maturity prematurely when grown in poor, shallow soils. In such instances the balance between heat and moisture cannot be kept as even as it should be.

Radishes.—I think these are more easily spoiled than any other kind of plant that is used for salads in summer. A stringy or pithy root is quite useless. If the soil is deep and rich, an open, sunny position may be devoted to their cultivation; then tender roots will be grown. But if poor, shallow soil be enriched with fresh, strawy manure, the roots would be forked, the tops large, with the crown of the plant raised somewhat out of the soil. Unsuitable roots would form in the best soil if strawy manure was dug in just prior to the sowing of the seeds. I used to grow my main crops of Radishes in summer in borders in front of walls facing the north, and I favour this position for some of the Lettuce crops, though I prefer a deep loam in an open quarter.

Lettuces.—Fine specimens may be grown on the ridges between Celery trenches in the early part of the summer. The additional depth of soil is mainly responsible for good crops. When such ridges are no longer available, throw up miniature flat-topped ones in open quarters, and continue to grow the plants in this manner where shallow soils obtain. When the plants root freely, the hearts will be, as a result, large and tender; whereas the exact opposite is the case when the plants are grown in shallow soils.

The Narrow North Border.

Small beds may be formed for succession crops of Radishes, Lettuces and Mustard and Cress. The earliest crops of Endive are also best grown on narrow north borders.

Beet.—No salad can be regarded as complete if it does not contain Beet. Those plants which are raised from seeds sown about the middle of May are the best, as they are more juicy and highly coloured than roots resulting from early sowings.

Cucumbers and Tomatoes.—Cucumbers should be mainly grown in a frame and used while they are very young. Fruits about twelve days old are the best for salads. Ridge varieties, too, are excellent for the purpose; the plants must be put out about June 5. This is also a good time for planting Tomatoes on south borders and near walls.

Young Onions.—These may be had late in the summer by sowing a few seeds in May and more at the end of June. The plants from both sowings will form a succession to those taken from the main crop as "thinnings."

When to Sow.

Radishes, every twenty days; Lettuces, monthly; Mustard and Cress, weekly; Endive, in June, July and August; Onions, in May and June; Beet, in May; and Cucumbers, in June, to form a succession to those from spring sowings. It is only by keeping up a succession of young plants that the majority of salads can be had in good condition during the hot weather, and wherever space is available the details given above should be observed.

AVON.



ODONTIODA CORONATION EXHIBITED AT THE TEMPLE SHOW.

(*Much reduced. See page* 257.)

THE FRUIT GARDEN.

FRUIT NOTES.

GRAFTED STOCKS.—Fruit trees which were grafted in the spring will shortly demand a little attention, if they have not called for it already. It is common to find that buds have started into growth on the stock itself, and as these would deprive the graft, which is now the important part of the plant, of sustenance if allowed to remain, they should be immediately rubbed off. With the extension of growth in the scion there will arise the necessity for support, which can usually be efficiently given by securely attaching a long stick to the stock and tying the extending shoots to it. If this were not done, there would be a danger of it blowing out and thus ruining the work.

Hoeing Among Fruit Trees.—In all portions of the garden hoeing is of immense value, and in none more so than among the fruit trees. Although these commonly send their roots down rather deeply and spread laterally for considerable distances, they demand incessant supplies of food, and these are substantially ensured, assuming, of course, the nutrient matters are present in the soil, by surface hoeing. This operation tends to create a condition of dust on the top; and while it cannot be claimed for it that it is as valuable as a surfacing of short manure, it is exceedingly beneficial, because it reduces the losses of moisture by the evaporation which is constantly proceeding, and thus the food is retained for the use of the plants. The grower who never misses a favourable opportunity of running the hoe through his fruit quarters will reap a rich reward.

Thinning Gooseberries.—The time is fast approaching when this operation will have to receive attention. The practice of securing half the crop green and leaving the remainder to finish has everything in its favour, and it should be far more frequently adopted by amateurs and cottagers than it is at present. The green fruits have real value for immediate use, and their removal relieves the plant of considerable strain, with the natural result that the fruits retained swell to a larger size and develop finer colour and superior flavour. Beyond these advantages, the buds for next season's cropping have a vastly better chance. Always keep a keen eye for caterpillars, and directly one is seen take instant steps to compass its death, as this will save much later trouble and, probably, a vast amount of disappointment.

Netting Strawberries.—If the nets have not yet been put in proper order for use, there must be no further delay. As a matter of fact, the careful cultivator will have seen to this long ago, when the weather was not favourable for outdoor operations and the demands of the crops in all parts of the garden were not so incessant as they are just now. However, some will assuredly have been neglected, and the overhauling will have to be done forthwith. No hole is too small

to be ignored. By some uncanny power the birds seem to know precisely where there is a hole. No matter how small it may be, they do not appear to experience much trouble in getting through it, and, once there, it is no easy or pleasant task to get them out again.

STRAWBERRY LITTER.—It is now too late to put down stained straw, as it is most improbable that it will have become perfectly clean before it is carrying the fruit. Those who did not get such material in position at the proper time will have to consider what means they intend adopting to keep the fruits in perfect condition. New straw cannot, of course, be beaten for the purpose, especially if it is that of Barley or Oats; but it is not always convenient, or even possible, to provide it. The clippings from the lawn are sometimes utilised for the purpose, but one has not the slightest hesitation in saying that it is just about the worst material that could be chosen. By all means use it for mulching, but keep it away from swelling Strawberries. Stout twigs that will each carry a truss of fruit are really admirable for the object in view, while strong sticks can be inserted at intervals with stout string stretched tightly between. The trusses are hung over the lines. FRUIT-GROWER.

FLOWER GARDEN

SWEET PEAS AT THE TEMPLE SHOW.

OWING, no doubt, to the spell of warm weather which had been experienced for several weeks previously, Sweet Peas at the Temple Show were of better quality this year than on any previous occasion. Not only were the flowers generally of good substance, but they possessed a depth of colour such as is not often seen so early in the year. Novelties were not very plentiful, but many of the newer varieties in commerce were well shown.

Messrs. Dobbie and Co., the well-known Edinburgh firm, brought a beautiful exhibit from their Essex seed farm; in quality the flowers were almost equal to those that we expect to see in July. The variety May Campbell was the most distinct novelty; it is a large, waved flower with a very bold, erect standard. The ground colour is rich cream, and the centre of the standard has a marbled patch of soft carmine. Melba is a large salmon flower, paler than Earl Spencer, and one that will most likely prove valuable for exhibitors. For garden and house decoration Mrs. Cuthbertson will prove a valuable addition. The standard is clear rose pink, wings white, very slightly flushed rose.

Mr. W. E. Alsen, Denmead, Hants, had a beautiful group of high-class flowers, Stirling Stent being largely displayed. This seems an excellent variety for growing under glass; but many of those who have tried it outdoors do not speak highly of it. That it possesses a charming orange salmon shade of colour no one disputes. In a vase of seedlings shown by Mr. Alsen there was a large, waved flower with almost sky blue wings and paler standard that should prove useful if fixed.

Mr. C. W. Breadmore of Winchester is a past-master in the art of growing Sweet Peas under glass, and on this occasion staged a charming group of superb flowers. Edrom Beauty was one of the best, and the fiery orange Dazzler was also in good form. Charlie Irving is a new waved flower, paler in colour than Stirling Stent. Whether it is required or not, considering others of its class that we already have, time alone can tell. The pale, but to many pretty, variety Iris was in good form. H. J. Jones, Limited, of Lewisham had a very attractive exhibit, the method of arranging the flowers with grasses giving the whole a cool and dainty appearance. Anglian Orange (a large waved flower), Gladys Burt, Earl Spencer and Freda Unwin were four that called for special mention.

Robert Sydenham, Limited, Birmingham, occupied their usual corner with Sweet Peas and Lilies of the Valley. The chaste Zarina was in superb condition, the tall vases showing its many charms off to the best advantage. Mrs. Charles Foster, Mrs. A. Ireland, Doris Burt and Maud Holmes were also in splendid form, and did much to uphold the reputation of the firm. In the small but effective group arranged by Mr. G. Stark of Great Ryburgh, Norfolk, there were several novelties, one of the most distinct being Loyalty, a large flower with blue flakes on a white ground. Hercules is a massive waved pink variety that would be most welcome were there not so many of this colour already available. The exhibit from Miss Hemus, Upton-on-Severn, was interesting, owing to the fact that the flowers of the variety Zero had been cut from plants the seed of which was sown in the autumn. Miss Hemus makes a feature of autumn sowing. According to a card attached to the exhibit, the first blooms were gathered this year on May 16. In the good-sized group shown by Mr. J. Stevenson, Wimborne, Thomas Stevenson, a large and improved Dazzler, was in good form, other excellent varieties being Asta Ohn and Mrs. Routzahn.



THE NEW HYBRID TEA ROSE PORTIA EXHIBITED AT THE TEMPLE SHOW LAST WEEK. (*See page* 257.)

ALPINE GARDENING AT HAYES PLACE, KENT.

IT goes without saying, I think, that to win the gold medal of the Royal Horticultural Society three years in succession for alpine plants alone, something worthy of those medals and equally worthy of alpine gardening must have been shown. This, indeed, is true. Equally true, and by no means of the least importance in the case, is the fact that so signal a series of honours—absolutely and entirely unique as they are—have fallen to the lot of Sir Everard Hambro, K.C.V.O., Hayes Place, Hayes, Kent, who in gardening affairs is, of course, an amateur. To the spread and extension of alpine gardening as a whole this latter fact is of the highest importance, since Sir Everard, not content with taking keen delight in the treasures his garden at home affords, obviously approves the wisdom of exhibiting them so that others may see what is possible of accomplishment and endeavour to go and do likewise.

To amateurs, and, indeed, all that great following who now experience infinite pleasure in these children of mountain and crag, such exhibits as those we now expect from Hayes are of the highest educational value, more particularly from the standpoints of what to grow and how to do it.

We see, indeed, many of the best and choicest of these alpines—best not always because of the great rarity of the species or variety so much as for their general amenability to cultivation in lowland gardens — grown into specimen plants, and we see, too, how great and profuse is their flowering and the picture-beauty such things create while much in Nature is wrapt in sleep. The ordinary amateur—he that is only just beginning, or the grower of a few isolated examples in small pots — marvels at the perfect carpets of blossoms some kinds afford. It is at such times as those to which allusion is made that many unique examples—unique in beauty and in cultural skill—have made their appearance, and I recall with great joy the glorious examples of Saxifraga Boydii, S. B. alba and others when they first made their appearance in these collections. We had known these plants and their beauty for years, had written much concerning them, had even exhibited them extremely well flowered in 8-inch pots; but we were not prepared for the great masses

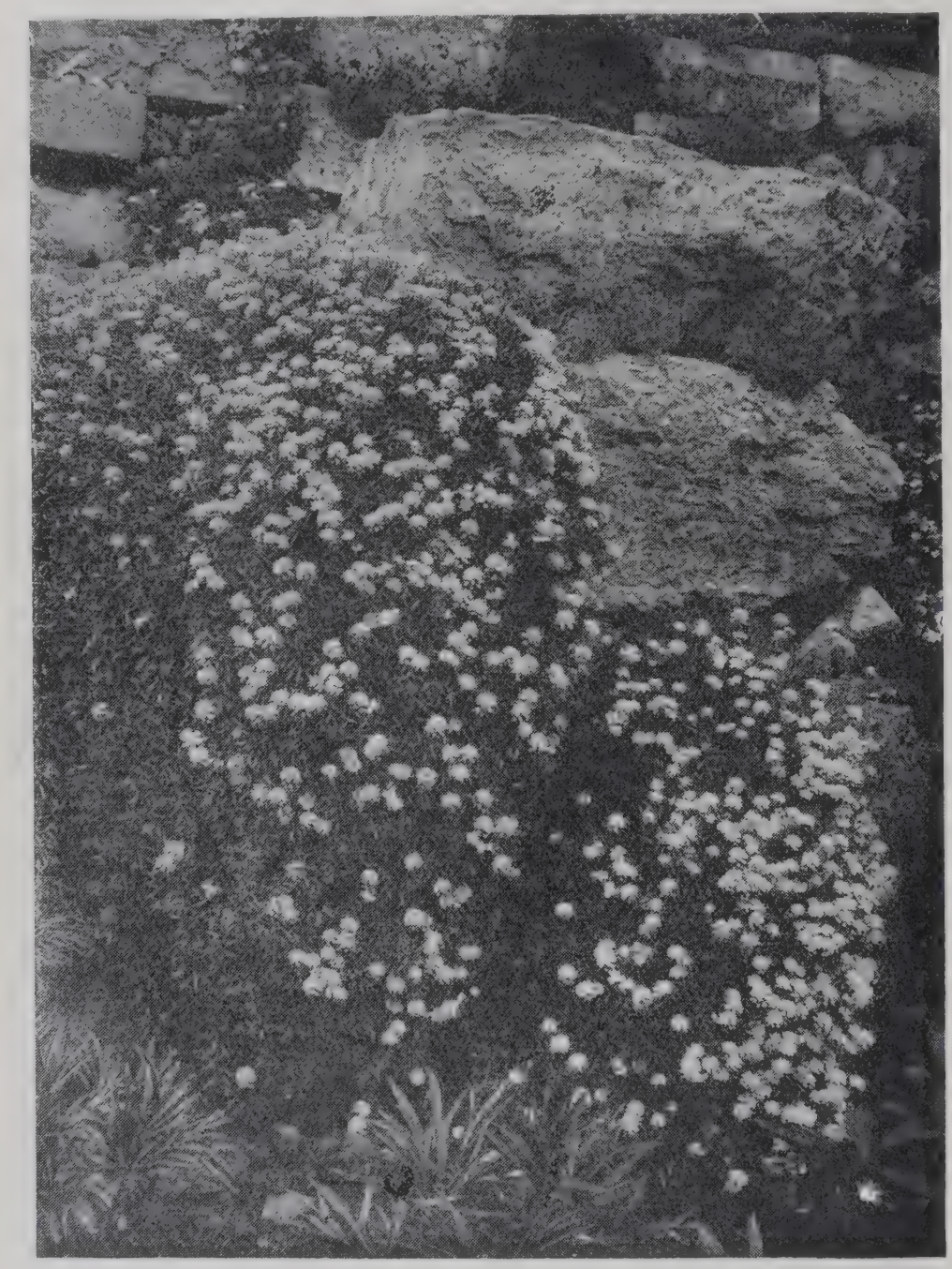
of flowers, the rich yellow colouring of the first named, or for the size of the blossoms of both as they appeared in these remarkable collections from Hayes. Nor was this all, since the perfect health of the examples—so essential a factor in the case—appealed to the writer beyond all else. It may be, of course, that the pure air of that portion of Kent from which they hail suits them so well; it may be that especial care is taken in the matter of soils and perfect drainage—the last-named always of importance; or it may be that these, in conjunction with a close study of the daily requirements of the plants, have, in the expert hands of the gardener, Mr. J. Grandfield, placed the Hayes collection of alpines upon a pinnacle of fame that has never before been attained since the revival of these plants set in forty or more years ago. I am speaking now out of the fund of a considerable experience, and, having loved them, grown them and exhibited them, I feel pleasure in paying this well-merited tribute as much to the rich collections of plants as to the cultural skill and excellence so characteristic of them.

In one of these gold medal groups a great variety of plants, species and varieties was seen, so great, indeed, that a catalogue would be needed for their enumeration; hence, naturally, the resources from which such things come are great also. This, indeed, is true, since at Hayes one meets with massed alpines of the showier kinds in rock garden and border alike, while in numerous frames and cold houses are to be found an almost endless array of the choicest and rarest of these plants. Of Saxifrages alone the Hayes collection is a very full one indeed, some fifty species and varieties of these being exhibited in March last in the group illustrated. Some of the more noteworthy of these included S. Boydii and S. B. alba, which were perfect cushions of growth and flower; S. Aizoon rosea, S. Petraschii (a pure white novelty, for which an award of merit was granted on the same occasion), together with huge masses of S. apiculata in full flower, the plant being also seen at Hayes resplendent with flowers and in near company with Erica carnea and other winter flowers. Indeed, the near association of these twain on a slightly sloping alpine border not only afforded a colour-picture of considerable beauty, but was very suggestive of what might be done with many another of these free-growing, easily-cultivated plants. S. Elizabethæ, S. scardica obtusa, S. sancta, S. juniperifolia, S. Obristii (a lovely white-flowered plant with blossoms nearly as large as Oxalis enneaphylla), S. burseriana in plenty, S. valdensis, S. Paulinæ (a possible or probable rival to the almost unique S. Boydii), S. squarrosa and others were noted in a large assembly.

But the Hayes collection of alpines is rich also in Primulas, which are largely grown in the cold houses and in the open, so as to afford a greater succession of the flower wealth of these spring-flowering plants than would be possible otherwise. Androsaces and Shortias were also noted, the beautiful S. uniflora grandiflora being very finely grown. A pan of the very choice Schizocodon soldanelloides naturally attracted a rare plant-lover, while Ramondia Heldreichii did not escape being seen. Not a few plants, such as Primula denticulata, P. cashmiriana, P. rosea, together with such half-hardy kinds as P. malacoides and P. kewensis, are grown for the cool conservatory also; while bulbous plants, as Iris reticulata, Chionodoxa, Muscaris, Fritillarias, Anemones and the like, all play their part usefully and well.

In concluding an all too brief and inadequate notice of the alpine gardening at Hayes, it should be stated that this is but one phase of the gardening as here carried out, the great range of glass houses and frames in every department—fruit, flowers, forced vegetables and Orchids alike—bearing high testimony to the consummate skill and enthusiasm of Mr. J. Grandfield, upon whom the management devolves.

E. H. JENKINS.



PERENNIAL CANDYTUFT IN THE ROCK GARDEN.

PERENNIAL CANDYTUFT IN THE ROCK GARDEN.

THE perennial Candytuft, known botanically as Iberis sempervirens, has many good points that recommend it as a useful plant for the sunny side of a rock garden. If planted in a suitable niche overhanging rockwork it will soon cover the face of the rock, as in the case of the plants shown in the illustration. This Iberis is notoriously hardy, and as it is evergreen, it has a cheerful appearance even in the dead of winter, when the rock garden is generally so desolate. The variety shown in the illustration is known as garrexiana. It differs very slightly from the true species.

TULIPS AT THE TEMPLE SHOW.

TULIPS are always a feature of the Temple Show. The Royal Horticultural Society could not do more for them than they do. They have prominent positions assigned to them in the long tent that stretches for a long distance parallel with the Embankment and in other places. On the present occasion the Council Tent was given up on the second day (the Wednesday) to the annual exhibition of the Southern Section of the National Tulip Society. It was an ideal date for them in any ordinary year, but this year has been anything but ordinary in the weather conditions that have prevailed, and so the competition was very poor; and, but for the presence of the great Northern champions, Messrs. Bentley and Needham, it would almost have been nil. Mr. Needham's first prize twelve were a very fine lot, and would have done him credit in a good year. A gold medal was offered under certain conditions for a trade group. This was won by Messrs Barr and Sons, who staged a singularly pleasing exhibit in which florists' varieties figured side by side with Darwins and Cottage.

Coming now to the groups in the large show, those of Messrs. Alex. Dickson and Sons of Belfast and Dublin and Messrs. Barr and Sons of London stood out very decidedly as the two best. The Irish firm are to be congratulated on their excellent arrangement. Large-sized vases were filled with tall, well-grown blooms, and ample space was allowed between them. Greenery was supplied by a few leaves of the common Red Phragmites communis, which were introduced here and there among the flowers as occasion required. When every variety has been well grown it is difficult to know which to mention; perhaps Clara Butt (Darwin), Prima Donna (Darwin), Sunset, gesneriana lutea and Kingscourt were as well grown as any. A fine bright rosy red Darwin called Sweetheart attracted much attention on account of its beautiful bright colour and real blue base. Clara Butt was magnificent. Although not a very large bloom, it has such a charming shade of salmony pink or rose that everyone falls in love with it and orders some. I am glad to see the price is now only 1s. 6d. a dozen. Duchess of Westminster or Yolande is something like it in colour, but of a deeper and richer tone and a larger flower. I like it very much. Ravenswing, which appears to me to be the same Tulip as Faust, is a big plum purple, an elegantly-shaped bloom rather on the long side, with a bluish base. Gorgeous, which is the same as Lucifer, is a large, handsome flower of a bright fiery orange red colour, with a yellow base. A mass in a garden, such as I saw recently at Ball's Park, near Hertford, makes a wonderfully bright and effective blotch of colour.

Kingscourt or Cardinal Manning is a fairly new variety and but little known. It is distinct and

of a peculiar shade of rosy violet, with a suspicion of several other tints. The flower is on the long side, and the petals are pointed. I must say these long pointed ones are decidedly effective in gardens. They are less stiff-looking than the more round drum-stick type, like Bouton d'Or, and except in sunlight or when all the blooms are wide open, they are the more pleasing. Possibly it is not a very great point; but as I have this season been noticing the general effects of the two, I think my opinion may as well be recorded. There were a considerable number of "broken" Tulips in the group. The firm makes more or less a speciality of them. General Murray is a rich yellow bizarre, feathered dark maroon, and Chameleon is a rosy mauve flushed and blotched maroon and yellow. Admiral Kingsbergen is a strong-growing, large blood red and white, highly effective in either clumps or larger masses.

The exhibit of Messrs. Barr and Sons was full of interest, and to those who are not very familiar with the intricacies of Tulip nomenclature, and who have but a vague idea of the difference between a Cottage and a Darwin or a Cottage and a florist, full of instruction. I liked the idea of putting all of one group together, and the arrangement did not suffer in the least. Many of the individual blooms were on the small side, but their beautiful fresh appearance more than compensated for this. Dealing with the strictly florist ones first, a special note must be made of James Wild, which is a deep yellow bizarre, heavily feathered with dark rich maroon. The pencilling was excellent, so fine and even. Then there were good examples of Sir Joseph Paxton, Dr. Hardy, Talisman, Sulphur, Mabel and that delightful breeder, Andrew Hunter. This last is a deep rich mauve, or, rather, pale purple, with the indispensable pure white base.

I would like to go off at a tangent and write about bases, but space is precious, and I must be content with simply drawing readers' attention to the vast difference they make to the effectiveness of the individual bloom. Black suits most women. Just so, a pure white or a pure yellow base sets off most flowers. Among the Darwins I noted Virginia. It has a white base and filaments, and the rosy mauve of the exterior of the petals is very happily blended with a lavender and grey. It is much after the style of a variety that I grow under the name of Salomen, which very often indeed gets picked out as one of the prettiest in my large collection. Gudin is a silvery heliotrope, and both here and elsewhere stood out as one of the most pleasing flowers. Faust I have already referred to as a splendid dark variety. Another equally good is Purple Perfection (is this the same as Purple King?). It is a grand thing, tall-growing, with large, rich deep port wine coloured flowers. Fanny is a lovely large soft pink; and Sophrosyne is an immense blush, with a pretty rose tint on the exterior of the outer segments. There were many other beauties, but I pass on to the Cottage group. Here there was a rich assortment of new and beautiful things. John Ruskin, a long, egg-shaped bloom of a delicious shade of warm pink, edged canary yellow; Emerald Gem, a stiff, shapely flower of a peculiar shade, shrimp red and orange, and a wonderful laster out of doors; Panorama, a huge, striking orange red of vigorous and tall growth; Salmon Prince, a lovely example of a type of colouring of which we have none too many, viz., apricot orange with pale gold shading; Inglescombe Yellow, one of the very best of all the paler yellow selfs; and Orpheus, a pretty little vase-shaped flower, opening creamy white and gradually flushing all over a warm pink, were good examples of some of the best older kinds. Golden Bronze (Gondvinck), a magnificent specimen of a rich yellow and brown flower, tall-growing, large and lasting; retroflexa superba, a new Tulip from the East, so named from its resemblance to the old retroflexa; Chestnut Bronze, a dark chestnut orange and brown; Aspasia, a curious speckled flower with red and yellow colouring; and Sunlight, a fine maculata form, were some of the new ones that were prominent.

The flowers staged by Messrs. Sutton and Sons were not so many in number nor of quite such a high quality as was to be seen in their fine group last year. All the same, their land near Reading can grow good Tulips. Parisian Yellow especially was extraordinarily fine. I noticed as good things Bronze Queen or Clio; Dom Pedro, a rich dark chocolate bronze; Ronald Gunn, a long, purple and grey Darwin; Orange Beauty or Prince of Orange, orange red; Toisor d'Or, rich yellow and brown; and Norma, an attractive, dull rose-coloured Darwin.

Messrs. R. and G. Cuthbert generally strike out a line for themselves. It was a happy inspiration to make a group of pot-grown plants outside the tents. The flowers were small, but I believe it would be quite possible to make a wonderful show by adopting these tactics. Experience teaches, and I look forward to something even better than their present exhibit on a future occasion. I must just mention the very fine flowers of Mr. Farncombe Sanders that filled the corner. They were a splendid example of one of the very best of all Darwins.

Lack of space does not permit me to do more than mention the exhibits of Messrs. R. H. Bath, Messrs. Hogg and Robertson, Messrs. Bunyard and Co. and Messrs. Rich and Son. Many excellent examples of standard varieties were included on their stands, and their wealth of colour did much to add to the attractiveness of the great show.

JOSEPH JACOB.



GOLD MEDAL GROUP OF ALPINE PLANTS SHOWN BY SIR EVERARD HAMBRO, K.C.V.O., AT A RECENT MEETING OF THE ROYAL HORTICULTURAL SOCIETY.

A YELLOW PINK.

A PRETTY Dianthus unfamiliar to many, yet known to students and admirers of the genus Dianthus, is D. Knappii, a Servian species introduced a few years ago. This was largely because of its colour, which is yellow, one rare indeed in the Pinks. It must not be thought that D. Knappii at all resembles the fragrant white and coloured garden Pinks which have for long been favourites with garden-lovers, as it is of entirely different habit. It grows erect and is from 1 foot to 2 feet high, having a tuft of leaves, above which rise the stalks bearing heads composed of a number of small yellow flowers, which are produced in succession. It is best in the border; but in poor soil, and in a dwarfed condition in consequence, it is suited to the rockery. It has not, as a rule, a long life, and cuttings should be taken, or seeds, which come freely, sown to maintain the stock of plants.

S. A.

TREES AND SHRUBS.

INTERESTING SHRUBS IN SEASON.

RUBUS DELICIOSUS. — At the time of writing, just beyond the middle of May, this shrub is quite a sight and one of the most handsome occupants of our shrubberies. It is a native of the Rocky Mountains, and is commonly known as the Rocky Mountain Bramble. With us it is quite an accommodating shrub, and it makes a subject for a pole. I have also seen it flourishing luxuriantly on a wall, where it shows itself off to good advantage. It will also form a splendid bush, and whether in the shrubbery or as a specimen on the grass, when in flower the large, single, snow white blossoms, resembling single Roses, cannot fail to be noticed. This should be more extensively planted, as it is of a hardy, vigorous constitution.

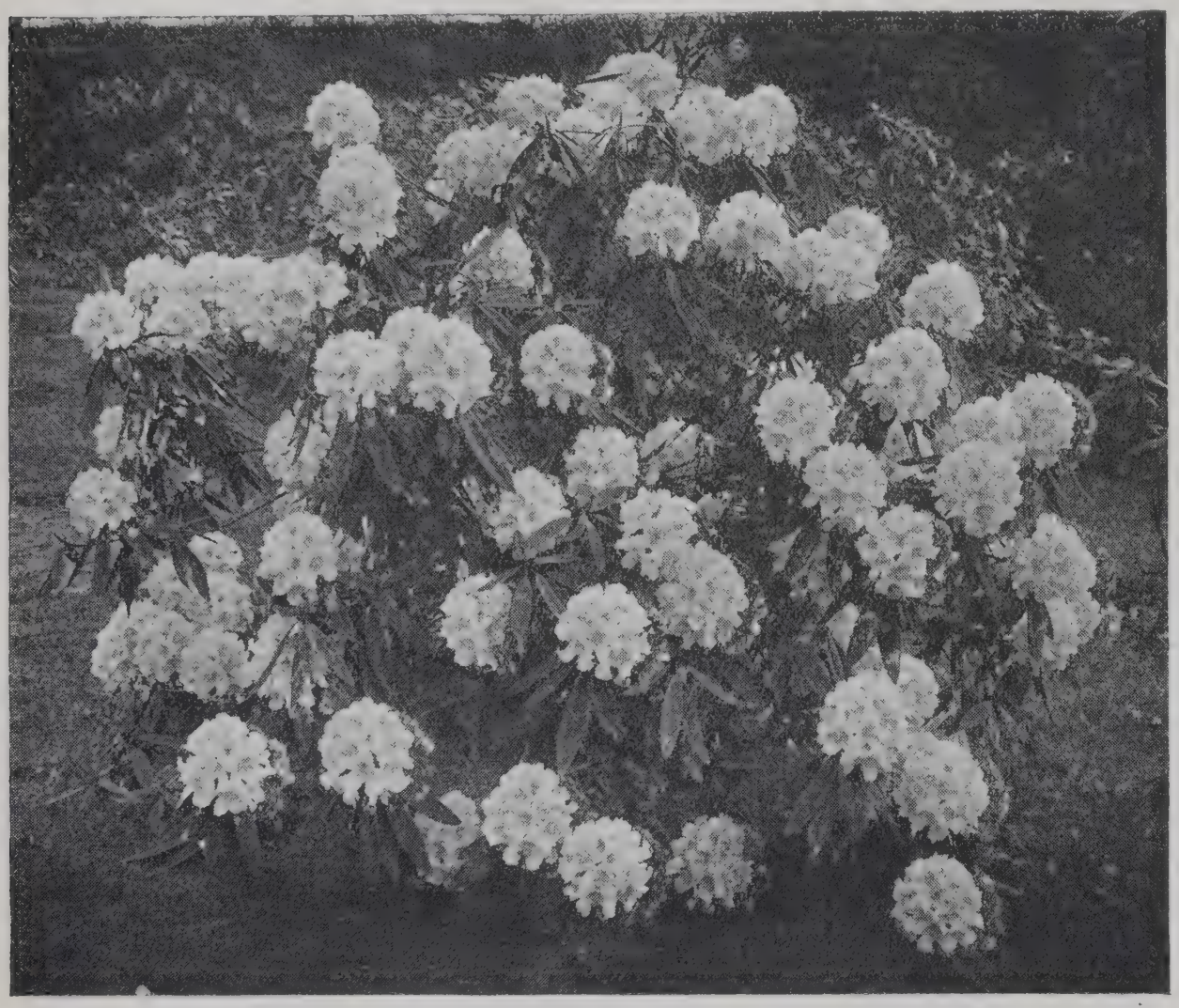
Pyrus nigra, or, as it is also known, Aronia floribunda, is a shrub that might with advantage be much more extensively planted in our shrubberies and woodlands. Here we have a bed of this deciduous shrub now in flower, containing a large number of plants, and it presents quite a pleasing sight with its countless heads of bloom, resembling much the flowers of a Thorn. It is of the easiest culture, and will grow in any soil almost and on any site. When autumn arrives this shrub assumes the most beautiful coloration to be found, and for this reason alone is quite worth growing.

Rhodotypos kerrioides is another striking shrub at this season of the year, and one quite worthy of extended culture. It is not in the least fickle in its requirements, and is worth a position in any shrubbery. This plant is a native of China and Japan, and is perfectly hardy. With the foregoing, this belongs to that great Natural Order Rosaceæ. Rhodotypos kerrioides forms a compact, shapely bush, is deciduous in character, and just now is producing a wealth of pure white four-petalled flowers, these being solitary and much resembling a Rubus. It is also a valuable plant for massing, and the dark fruits that follow are long retained. Those of last season in many instances are still adhering perfectly to the last year's growth.

Clematis nutans is a new species recently introduced from China, and has proved hardy in an exposed position. As a subject for clothing a pergola, pillar or pole it is extremely useful, making as it does abundance of growth and attaining a considerable height. The flowers are produced in clusters of a pendent habit, and though not so showy as those of many species, they are very attractive, freely produced and last in flower for a considerable length of time. They are creamy yellow in colour and have a pleasant perfume much resembling that emitted by Cowslips.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.



RHODODENDRON SMITHII ALBUM.

A BEAUTIFUL RHODODENDRON.

(R. SMITHII ALBUM.)

WE are now in the midst of the Rhododendron season, and of all the beautiful shrubs to flower now there is none to excel the Rhododendron for colour effect. The illustration on this page shows the beautiful Rhododendron Smithii album flowering at its very best. It is early to flower, and is quite an acquisition as a hardy evergreen variety, for it carries large white trusses and flowers in profusion. It is hard to understand why good collections of these flowering shrubs are so seldom seen. Even where Rhododendrons are a success, the common Rhododendron ponticum, which has the distinction of being the only covert plant that game never touch, is often grown in places where the more beautiful varieties should be given prominence.

THE TOWN GARDEN.

DAHLIAS.—To a very considerable extent the Dahlia is a town garden plant, or, at least, it is beloved by many town-dwellers for its size and brilliant colouring. One gentleman, indeed, that I know, and who indulges in a few good Orchids as well as other plants under glass, appears to possess a great fondness for the largest of the decorative class, and for a week on end, morning after morning, will don a differently-coloured variety for his button-hole. As my friend is of huge proportions himself, the huge flower is well advertised and the twain responsible for not a little banter and fun in the morning train. Another gentleman—a builder, by the way—is very sweet on the newer Pæony-flowered sorts, and the largest of these in their brightest colours suit him exactly. In both cases the gentlemen referred to live in thickly-populated districts, and both get some surprisingly good flowers as the result of their labours. "They please me, anyway," I have heard them say, and from this particular phase of amateur gardening nothing more can be desired.

THE FLOWER THAT PLEASES, indeed, is the one to grow, be it what it may, since the amateur then gardens for love and not for necessity; and in so wide and so varied a realm as floriculture, with its glories of spring and wealth of summer and autumn beauty, the amateur specialist is something to be desired, something to be encouraged in all departments. For he it is out of his enthusiasm and knowledge who not only daily and hourly advertises the flower of his choice, but who inspires his friends and infects them with his own enthusiasm. In this way gardening in all its aspects and phases is broadened and extended year by year.

PLANTING-TIME.—The early days of June are ever to be regarded as a safe and good time for planting out all tender subjects, and the Dahlia in its many forms is certainly one of them. Some there are who risk their plants out earlier than this, and, covering them with inverted pots, preserve them from frosts meanwhile. The glorious weather of early and mid-May this year, however, perfect in its summer warmth and occasional rains, has tempted not a few to plant out earlier than is their wont, and I trust they will have no cause to regret it.

THE HARDENED PLANT.—How much cold or even a degree or two of frost a Dahlia plant will endure with impunity depends not a little upon how hardily or tenderly it has been reared. To relegate the old stools at housing-time to a cellar or shed or beneath the greenhouse stage and think of them no more till the time for planting arrives points the way to the rubbish fire-heap, and is not gardening. To cut such overdrawn plants back and plant them ensures but a late and weakly growth from which no good can come, since these cannot compare with the youngster specially reared and duly hardened off. The correct kind of plant is that of 6 inches or 9 inches high, short-jointed, firm and sturdy-looking, the individualised, independent thing with a full complement of root-fibres to support it and eager to get free to play their part.

PLANTING.—The ground should be well and deeply cultivated, not excessively manured, as this to the youthful plant but encourages grossness, which is not to be desired. Dig and well stir the soil for 2 feet in depth and for a like surface in diameter. When in the act of planting, so arrange the soil that the plant rests in a saucer-like depression, for the Dahlia requires abundant moisture in its growing season. The depression might well extend to nearly 2 feet across, and of this size will be of value alike for mulching and watering.

S. N. N.

GARDENING FOR BEGINNERS.

PELARGONIUMS FOR WINTER FLOWERING.

A GREENHOUSE full of Zonal Pelargoniums in the winter is a sight worth seeing, and anyone whose garden is situated away from the neighbourhood of large towns may grow these plants quite successfully with comparatively little trouble. Even a few plants associated with other flowering and foliage plants do much to brighten the glass structure in mid-winter, when, as a rule, there is a dearth of plants in flower. The potent character of fogs that prevail in and around the metropolis and within twelve miles, more or less, of its centre makes the cultivation of the Zonal Pelargonium in winter almost prohibitive. The writer has seen a large glass structure filled with well-grown and freely-flowered specimens of the subject in question in early December absolutely spoiled by an unexpected London fog. For this reason beginners in less-favoured districts should count the cost before setting out on this work, as the risk of failure is considerable. To obtain good, strong plants for flowering during next winter the cuttings should be inserted as soon as possible. Opinions differ as to when the period of propagation should begin. Many growers begin propagating as early as March and April, and very excellent results are invariably obtained by these means. It is by no means too late to begin now, and for this reason beginners should commence forthwith. I should not be disposed to delay inserting the cuttings, as the sooner they are rooted the better. A little care is necessary when making the selection of growths from which the cuttings are made. Very hard, woody cuttings are most undesirable, and for this reason they should be avoided, as they are usually very slow in rooting. The best growths from which cuttings are made are those that are fairly firm. As a rule, under normal conditions, cuttings of this description root quite satisfactorily at this season. In Fig. 1, on the left, the kind of growth from which Zonal Pelargoniums (Geraniums) are made is shown. Note its sturdy character, which denotes promise. On the right of the picture there is portrayed a cutting properly prepared and ready for insertion. The method of its preparation is to trim off the lower leaves, cutting them off close to the main stem with a sharp knife, and as a finale, to cut straight through the stem of the cutting immediately below a joint. It is usual also to remove all flower-buds and bracts, as the latter hold the moisture and tend to cause decay when they are retained. Cuttings of winter-flowering Zonal Pelargoniums are usually inserted individually in pots about 2½ inches in diameter, and when they are adjusted in position the cutting should be represented much in the same way as the one in the pot on the top of the picture in Fig. 1. Insert the cuttings about 1½ inches deep, pressing the compost firmly to their base, and with a gentle rap of the pot on the potting-bench assist to settle the soil satisfactorily.



1.—THE CUTTING BEFORE AND AFTER INSERTION.

A good compost in which to strike these cuttings should comprise four parts good fibrous loam, one part leaf-mould and one part coarse silver sand. These soils should be well mixed and passed through a sieve with a half-inch mesh before using. The pots and crocks should be washed clean before use, and new pots should be soaked in a vessel of clean water before they are taken in hand. Crock carefully, covering the crocks with some of the rougher siftings of the compost, and then fill the pots with the prepared soil, making this firm. Finish off with a layer of sand on the surface. Proceed then to insert the cuttings as advised above. Until the cuttings are rooted very little water will be required; but as soon as rooted they can have more water. Stand the pots on a shelf or some other dry and warm quarter of the greenhouse where the temperature can be maintained at from 55° to 65°. Subsequently repot into 5-inch or 6-inch pots, but as soon as rooted the points of the growths should be pinched out to induce a bushy form of growth to evolve. Fig. 2 shows, on the left, a young plant nicely rooted in a 3-inch pot, and another plant, on the right, potted on into a larger pot, giving evidence of making satisfactory progress. In both instances the grower has allowed bloom-spikes to develop. This is wrong. All buds should be removed till September. This will induce the plants to flower much better later on.

During the summer the plants should be stood outdoors in a warm, sunny position on a bed of ashes, and be taken indoors in September.

D. B. CRANE.



2.—PLANTS MAKING SATISFACTORY GROWTH. THE FLOWER-BUDS SHOULD BE PINCHED OUT UNTIL SEPTEMBER.

HINTS ON SHADING PLANTS.

TEMPORARY shading only will be advisable in the case of many kinds of plants throughout the summer months; in the case of others a permanent summer shade will be necessary. Where temporary shade is needed, it is usually applied during the few hottest hours in the middle of the day; but it is always wise to put on the covering material in good time when the sun seems to scorch. This often occurs when the sun is obscured by clouds every few minutes. Anyone inexperienced in the matter of shading tender plants might think that there was no need to shade them on such a day; but when weather of this kind prevails there is much danger of scorching. Some kinds of plants that have been temporarily shaded now require a permanent one, and no time must be lost in getting such shading put on. Various compositions are sold by horticultural sundriesmen, who advertise them and give directions for their application. A very simple home-made shading is the following: Whiting and buttermilk or whiting and water. The latter must be warm when used, because it is necessary to dissolve a tablespoonful of size in each half-gallon to make the shading material adhere to the glass. In the case of buttermilk size is not needed. When applying the shading use a soft brush; if flat, so much the better, and be very careful to keep the liquid off the wood. If, however, some splashes on to the paint, it will do the latter no harm; but limewash would, and this is one strong reason for not using it. Apply the shading with a brush; it will look so much better and be more effective than if it were syringed on.

SHAMROCK.

THE PARENTAGE OF ROSES.

(*Continued from page 254.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Dr. Reymond	M.S.	L. Mermet	1908	Seedling Crimson Rambler
„ Troendlin	H.T.	Kaiser	1904	Sport Caroline Testout
„ Valere Beaumez	Tea	Ketten	1905	Sport Dr. Favre
„ W Van Fleet	H.W.	Van Fleet	1908	R. wichuraiana × Souv. de President Carnot
Duarte d'Oliviera	N.	Brassac	1880	Ophirie × Rêve d'Or
Duc de Caylus	Tea	V. Schwartz	1896	Luciole × Beauté Inconstante
„ „ Ossuna	H.P.	Avoux	1855	Seedling La Reine
„ „ Rohan	H.P.	Leveque	1861	Seedling Marie Rady
„ Eugène d'Arenberg	H.T.	Soupert	1898	Mme. Lambard × Mrs. W. J. Grant
Duchess of Albany	H.T.	W. Paul	1888	Sport La France
„ „ Connaught	H.T.	Bennett	1880	President × Duchesse de Vallambrosa
„ „ Edinburgh	H.P.	Schwartz	1873	Marguerite de St. Amand × Baroness Rothschild
„ „ Edinburgh	Tea	Nabonnand	1874	Seedling Souv. de David d'Angers
„ „ Fife	H.P.	Cocker	1893	Sport Countess of Rosebery
„ „ Leeds	H.P	Mack	1887	Seedling La France
Duchesse A. d'Ursei	H.P.	Soupert	1884	Seedling Gustave Coreau
„ d'Auerstœdt	D.T.	Bernaix	1888	Seedling Rêve d'Or
„ de la Mothe-Houdancourt	H.T.	Houdancourt	1907	Mme. Abel Chatenay × Maman Cochet
„ Hedwige d'Arenberg	H.T.	Soupert	1898	Mrs. W. J. Grant × Caroline Testout
„ Marie Salviatti	Tea	Soupert	1889	Mme. Lambard × Mme. Maurice Kuppenheim
„ Mathilde	Tea	Vogler	1861	Sport Bougère
Duke of Connaught	H.P.	G. Paul	1876	Seedling Maurice Bernardin
„ „ Edinburgh	H.P.	W. Paul	1868	Seedling General Jacqueminot
„ „ Fife	H.P.	Cocker	1893	Sport Etienne Levet
„ „ Teck	H.P.	G. Paul	1880	Seedling Duke of Edinburgh
Dunkelrote Hermosa	B.	Geissler	1899	Reine Marie Henriette × Hermosa
Dusseldorf	H.T.	Plog and Hinner	1908	Caroline Testout × Eugène Resal
Earl of Dufferin	H.P.	A. Dickson	1887	Mme. Victor Verdier race
„ „ Pembroke	H.P.	Bennett	1882	Marquise de Castellane × Ferdinand de Lesseps
„ „ Warwick	H.T.	W. Paul	1904	Mrs. W. J. Grant × Souv. de S. A. Prince
Ecarlarte	H.T.	Boytard	1907	Seedling Camoens
Eclair	H.P.	Lacharme	1883	General Jacqueminot race
Edelstein	H.T.	Welter	1904	Souv. de Mme. Eugénie Verdier × Souv. de President Carnot
Edmée A. Roger	H.T.	Ketten	1902	Safrano × Caroline Testout
Edmond Proust	H.W.	Barbier	1902	R. wichuraiana × Souv. de C. Guillot
Edouard Gaulthier	Tea	P. Ducher	1883	Seedling Devoniensis
„ Morren	H.P.	Granger	1869	Seedling Jules Margottin
„ Pynaert	H.P.	Schwartz	1877	Seedling Antoine Ducher
Edu Meyer	H.T.	Lambert	1904	Rose d'Evian × Goldquelle
Edward VII.	P.P.	Schultheis	1910	Seedling Mme. N. Levavasseur
Edwin Lonsdale	H.P.	Hoopes	1903	R. wichuraiana × Safrano
Eileen Low	P.P.	Levavasseur	1910	Mme. N. Levavasseur × Orleans Rose
Electra	M.S	Veitch	1902	R. multiflora × William A. Richardson
Elie Lambert	H.P.	E. Lambert	1898	Seedling Mme. D. Wettsheim
Elisa Boelle	H.P.	Guillot p.	1869	Seedling Mme. Recamier
„ Fugier	Tea	Bonnaire	1890	Sport Niphetos
„ Robichon	H.W.	Barbier	1902	R. wichuraiana × L'Ideal
Elise Hœymann	Tea	Strassheim	1891	Mme. Lambard × Monte Rosa
Elizabeth	H.T.	B. R. Cant	1910	Seedling Frau Karl Druschki
„ Vigneron	H.P.	Vigneron	1865	La Reine × Duchess of Sutherland
„ von Reusse	H.T.	Soupert	1900	Caroline Testout × Alice Furon
Ella May	Tea	May	1890	Sport Sunset
Ellen Drew	H.P.	A. Dickson	1896	Sport Duchesse de Morny
Else Schule	H.T.	Geissler	1892	Sport Mme. de Watteville
„ von Stein-Keller	H.T.	J. C. Schmidt	1910	Mme. Hoste × Marjorie
Emil Limmer	H.T.	Turke	1910	Princesse de Bearn × Francis Dubreuil × Liberty
Emile Fortepaule	H.W.	Barbier	1903	R. wichuraiana × Souv. de C. Guillot
Emiliano Olinden	H.T.	A. Schwartz	1907	Antoine Rivoire × Luciole
Emilie Dupuy	D.T.	Levet	1870	Mme. Falcot × Gloire de Dijon
„ Potin	P.P.	Mille T.	1900	Perle d'Or × Marie Pavic
Emma Sasse	H.T.	Plog	1908	Mrs. W. J. Grant × Paul Neyron
Emmanuel Geibel	Tea	Heldung	1890	Sport Mme. Falcot
Empereur du Maroc	H.P.	B. Guinoisseau	1857	Seedling Geant des Batailles
„ Napoleon III.	H.P.	Granger	1854	Seedling Geant des Batailles
England's Glory	D.T.	Wood	1902	Seedling Gloire de Dijon
Entente Cordiale	H.T.	P. Ducher	1909	Mme. Abel Chatenay × Kaiserin A. Victoria
„ Cordiale	Pernet	Guillot	1908	Caroline Testout × Soleil d'Or
Erbprincessin M. V. Ratibor	Tea	Turke	1893	Lazarine Poizeau × Luciole
Erinnerung an Brod	Pr.	Geschwindt	1886	R. rubifolia × Genie de Chateaubriand
Erna Teschendorff	P.P.	Teschendorff	1910	Sport Mme. N. Levavasseur
Ernest Morel	H.P.	P. Cochet	1898	General Jacqueminot race
Ernst Grandpierre	H.W.	Weigand	1900	R. wichuraiana × Perle des Jardins
„ Hempel	H.T.	Mietzsch	1907	Seedling Caroline Testout
Etendard de Jeanne d'Arc	D.T.	Garcon	1883	Seedling Gloire de Dijon
Etienne Levet	H.P.	Levet p.	1871	Seedling Victor Verdier
Etoile de France	H.T.	P. Ducher	1904	Mme. Abel Chatenay × Fisher Holmes
„ du Berger	Tea	Mille T.	1905	Empress Alexandra of Russia × Safrano Rouge
„ „ Nord	H.P.	Bernede	1859	Seedling General Jacqueminot
„ „ Portugal	H.Sps.	Cayeux	1909	R. gigantea × Reine Marie Henriette
„ Polaire	Tea	Tesnier	1891	Seedling × Jaune de Fortune
Eugène Appert	H.P.	Trouillard	1859	Seedling Geant des Batailles
„ Boullet	H.T.	P. Ducher	1910	Seedling × second seedling
„ Fürst	H.P.	Soupert	1875	Seedling Baron de Bonstettin
„ Scribe	H.P.	Gautreau	1867	Seedling Triomphe de l'Exposition
Eugenia Bougini	H.T.	Ketten	1904	Mme. Ravary × Johanna Wesselholt
Eugénie Lamesch	P.P.	Lambert	1899	Aglaia × William A. Richardson
Euphrosyne	M.S.	Lambert	1896	R. multiflora × Mignonette
Eva de Grossouvre	H.T.	Guillot	1908	Seedling Mrs. W. J. Grant
Evergreen Gem	H.W.	Manda	1899	R. wichuraiana × Mme. Hoste
Excellentz Kunze	M.S.	Lambert	1909	Aglaia × Souv. de C. Guillot
„ von Schubert	M.S.	Lambert	1909	Mme. N. Levavasseur × Frau Karl Druschki
„ M. Schmidt - Metzler	H.T.	Lambert	1910	Frau Karl Druschki × Frederich Harms
Eynsford Beauty	P.P.	Cannell	1909	Sport American Pillar
Farbenkönigin	H.T.	Hinner	1901	Seedling La France
Farquhar	H.W.	Farquhar	1903	R. wichuraiana × Crimson Rambler × a H.P.
Faust	Tea	Vigneron	1909	Souv. du Dr. Passot × Safrano Rouge
Félicité et Perpétue	S.V.	Jacques	1827	Seedling R. sempervirens major
Ferdinand Chaffolte	H.P.	Pernet p.	1879	Victor Verdier race
„ Roussell	H.W.	Barbier	1903	R. wichuraiana × Luciole

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

THE ROSE GARDEN.

PLANNING A ROSE GARDEN.

ALTHOUGH this is not the time of year to carry out this work, it is none too soon to be thinking about it, so that we may be prepared by next autumn with our scheme. It is an excellent plan to make one's own scheme, rather than to place the work in the hands of the specialist. These few notes are penned more with the idea of raising a discussion on the subject for the benefit of readers of THE GARDEN; but I offer a few suggestions of my own. As to what we should plant, so much depends upon the space at our disposal. If I had a large area to deal with, I would go in for a large variety rather than huge beds of one sort. I have known some people to plant as many as 500 or 600 of Caroline Testout in one bed. This would not be my style. Rather would I have ten or twelve smaller beds occupying about the same area filled with, say, fifty each of Mrs. E. G. Hill, Mme. Leon Pain, Betty and other delightful pinks.

With the hundreds, or I might say thousands, of varieties to-day, it is a pity not to have a real good variety of sorts, each one having some distinct charm that appeals to one. I would rather have a Rose garden containing a number of small beds holding, say, five or ten plants each than fewer but larger beds. This to me would be a more preferable arrangement than locating several sorts in one bed, even though the growth were fairly harmonious. Then there is the matter of mixing two kinds in one bed; that is to say, standards or half-standards overhead and another variety as bushes. This has a nice effect when the selection is suitable, such as when one uses, say, Frau Karl Druschki as standards and a beautiful China, such as Comtesse du Cayla, beneath. Much could be made of the lovely Polyantha Roses by planting them as groundwork and as edgings, and I am pleased to know that they are being employed in this manner very extensively. One thing is pretty clear, and that is, we need to eliminate the Hybrid Perpetuals from the Rose garden as much as possible, excepting a few kinds, such as Mrs. Sharman Crawford and Captain Hayward, that are nearly as free-flowering as a Hybrid Tea. There must be in the modern Rose garden a good blaze of colour and as continuous as possible, and this may be accomplished by employing suitable kinds.

It may be asked, What are we to do with the Hybrid Perpetuals, for they are of such glorious rich colours and so fragrant? Well, I would suggest that they be planted in the approaches to the Rose garden, or even in other beds in the garden, because it would be wrong not to have them somewhere. But I have seen Rose gardens quite spoilt from a spectacular point of view by the inclusion of these summer-flowering misnamed Hybrid Perpetuals. They may or do give us a few odd flowers in the autumn; but we want a quantity if our Rose-beds are to compete with the bedding subjects. If I had a garden large enough, I would divide it into a series of Rose gardens, one to contain the charming Briars and other early June-flowering Roses, another for the Hybrid Perpetuals and other non-perpetual sorts, and the main and larger one for the grand Hybrid Teas, Teas and other really perpetual kinds. Personally, I love every Rose. I have never seen a Rose yet I disliked, and in my collection of over 600 varieties I can see a charm in every one. I should like to see every Rambler Rose suitably located, not on tall arches, where their beauty is hidden, but as free-growing bushes, such as we see our wild Roses in some coppice or wood.

All who are planning Rose gardens this autumn should make a point of seeing the sorts growing. Do not be misled from what is seen at Rose shows, but watch the habit of the plant and see if it conforms to your idea of effectiveness. One thing is pretty certain—we cannot expect to have, excepting in a few cases, extra fine quality of bloom combined with a lavish display. If this is desired, one must plant the bushes closer together and prune hard each year. By selecting good, upright growers one may accomplish much towards this end.

I should like to put in a word for the standard Rose. Where is there a more noble picture of floral beauty than a free-headed, well-bloomed standard Rose? Why is it they are not more frequently seen? I believe it is owing to the demand of the public for unsuitable kinds in standard form. We want the good, free-headed sorts, such as Mme. Isaac Pereire, Grüss an Teplitz, Caroline Testout, &c., not the puny, stumpy growers of the Captain Christy class. Many of the charming Austrian Briars, Hybrid Chinese and Moss Roses make splendid standards, and so also do some of the Ramblers. These can be isolated with flowering shrubs, and for such a purpose are particularly suitable. Hedges of Roses are most beautiful objects, and are now planted very extensively. Here, again, it requires a knowledge of Roses to enable one to select the best sorts. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Salvia splendens (*W. A. B.*).—It is extremely difficult to induce the old Salvia splendens to flower outside till late in the season, but the newer and dwarfer kinds may be had in bloom much earlier. The best for the purpose is Pride of Zurich, and to those who contend that it will not flower till September we may point out that a large group consisting of about 100 plants, all in full bloom, was shown at the meeting of the Royal Horticultural Society on April 25, and, again, a somewhat lesser number on May 9. The plants had, of course, been struck from cuttings towards the end of last summer and kept during the winter in a good light structure safe from frost. Seeds of these Salvias are often advertised, and on this subject we may point out that plants raised from seeds are a good deal later in flowering than when they are propagated from cuttings. These cuttings may be struck in late summer and early autumn, or the old plants can be wintered in the greenhouse and then in early spring taken into a little more warmth. This will result in young shoots being pushed out freely, which in a close propagating-case will root in a few days, when they must be hardened off and potted singly. Pots 3 inches or 4 inches in diameter will suit them well. Grown on sturdily and well hardened off, these will bloom in a satisfactory manner in the summer.

Anemone apennina (*J.V.M.*).—If the roots to which you refer are old stock, the residue of last season's supply, we could not recommend planting them at this time of the year. The hortensis section of the genus may long be kept in the dry state with comparative impunity, a similar remark applying to A. fulgens. The forms of A. blanda, and equally so of A. apennina, appear to resent this excessive drying off, and not infrequently perish as soon as planted. The best way to introduce these Anemones into the positions indicated would be to plant them in early autumn, obtaining the necessary supplies in August or September and planting at once.

Manuring herbaceous borders (*C. H. T.*).—You cannot do this with any degree of satisfaction or success at this season, early autumn being the better time as far as the use of organic manure is concerned. Such artificial manures as Wakeley's Hop Manure, Thomson's Vine Manure or Clay's Fertilizer could all be applied now, sprinkling them round the clumps and allowing the rain to work them in. It might be possible to make up a border as you suggest, but it would require much care and a good deal of preparation. In the case of the mixed border, it is always open to supply it with liquid manure at any time, though, generally speaking, the autumn or early winter would be the best.

Polygonum lanigerum (*E. S. L.*).—The species is certainly a tropical one, and for open-air gardening its success would depend upon an early start and strong plants being bedded out at the end of May or early June. The species obviously is a lover of warm conditions; hence seasons greatly affect its progress. For garden purposes in this country the plant should be regarded as an annual. It is in our experience strictly so, and should be grown on quickly from the start as one would treat the variegated Maize when grown for decorative effect. How the plant will behave in your cold district we cannot say. It is entirely a matter for experiment. The Iresine would, of the two plants you name, be most likely to succeed with you when grown outside. It is also the hardier of the two.

Tropæolum polyphyllum (*L. H. Evans*).—The tubers of this plant frequently descend to a very considerable depth and, getting into the gravel or clay subsoil, often fail to flower or grow satisfactorily. The tubers should be given a restricted root area, and the soil should be moderately rich and deep, *i.e.*, about 2 feet or so. A warm position is also necessary, though in your district this would be generally assured. All you can do now is to encourage the best possible growth by watering with liquid manure, and in late summer or early autumn lift, dry and replant. In certain instances the annually lifted and rested tubers give the best results; but it is not always so. The plant inclines to travel about and is very charming at times, springing up and flowering in quite unexpected places.

Anemone and Aubrietia (*M. C. L.*).—The plant of which you send flowers appears to be Anemone apennina, a tuberous-rooted species that can only be divided advantageously when dormant. The plant is so cheaply purchased by the hundred, and so easily raised from seeds sown in the open ground in drills, that we doubt the wisdom of dividing its roots unless you have a considerable number. The best time for such division would be in July or August, the first month for preference. The tubers are not unlike the underground Pig Nut. You will observe nipple-like excrescences upon them, and with careful treatment each of these would form a plant. When divided—they would have to be cut with a knife—place the divisions in dry silver sand for a fortnight before replanting them. The Aubrietias should be planted at once, whether supplied as pot examples or open ground specimens.

THE GREENHOUSE.

Blue Hydrangeas (*Hortus*).—The production of blue flowers on Hydrangeas is still somewhat of a puzzle to horticulturists, as in some soils the bulk of the flowers come blue, those of the normal pink colour being quite the exception. The presence of blue flowers is generally attributed to iron in the soil; hence when potting a good plan is to put about a teaspoonful of sulphate of iron to each peck of soil, and when the pots are well furnished with roots to water them occasionally with a solution of the same to the extent of a teaspoonful in a gallon of water. This must not be done when the soil is very dry; if it is in this state the plant should at first be watered with clear water. Another way of turning Hydrangea flowers blue much favoured by some is to water occasionally with alum water at a strength of 1oz. of alum to a gallon of water. The alum should be at first crushed and dissolved in a little hot water. The plants may be watered with this at intervals of ten days to a fortnight, but it must be discontinued when the flowers begin to open. This remark will also apply to those watered with a solution of sulphate of iron.

Geraniums dying off (*J. W.*).—We have this season observed numerous instances of young Geraniums dying off in the way yours have done. A few years ago this trouble was almost unknown, but its ravages seem greatly on the increase. Authorities do not agree as to its cause, but we think that excessive moisture has a good deal to do in the matter. Possibly the soil is not kept too wet, but there may be a good deal of atmospheric moisture in the house, while, apart from that, our own winters are much moister than those of South Africa, where the original types of our garden Pelargoniums came from. This theory is substantiated by the fact that the trouble is more evident in late winter and early spring than at any other time. All that we can advise you to do is to avoid overwatering and to allow as free a circulation of air as possible.

Cyclamen after flowering (*M. D.*). — Plants that have finished flowering should be removed to a frame and be watered carefully as before. They will soon show signs of going to rest by the leaves turning yellow, when very little water must be given, just enough, in fact, to prevent the soil from becoming dust dry. After a time the young leaves will begin to make their appearance, when the corms should be shaken quite clear of the old soil and be repotted in a mixture of two-thirds turfy loam, one-third leaf-mould, a liberal sprinkling of lime rubble, broken small, and silver sand. During the resting period plenty of air should be given. When repotted, the plants must be stood on a bed of ashes, and watering must be very carefully done till the pots are well furnished with roots. Throughout the summer Cyclamen do best in a frame that gets very little direct sunshine, and if that is not available, the lights must be, of course, shaded. During warm, dewy nights or damp days the lights may be removed altogether. This does not apply when there is heavy rain, as this is very injurious to the plants. As Cyclamen delight during the summer in atmospheric moisture, a gentle bedewing with a syringe two or three times a day in hot weather is a great advantage. As the nights grow cold the plants should be taken into the greenhouse and given a good light position therein. Overcrowding must at that period be strictly guarded against.

Azalea not doing well (*Freda*).—Judging by the leaves sent, we should say that your Azalea is in such a poor state of health that nothing can be done to revive it. It is not caused by any disease, but the treatment it has received must be at fault. On this point you say nothing, so that it is, of course, quite impossible for us to put our finger on the weak spot and to suggest a remedy. The most suitable compost for Azaleas is fibrous peat and sand, and in potting it is very essential that the pots are quite clean and effectually drained, while the soil must be pressed down very firmly and regularly. It is also of equal importance to see that the ball of earth is not put deeper in the soil than it was before, and that it is fairly moist, as if dry when potted it is almost impossible to moisten it afterwards, and though the new soil may appear wet enough, the plant may perish from drought. When Azaleas are placed out of doors during the summer, the best situation for them is a spot where they are slightly shaded from the sun during the hottest part of the day, but by no means under the shade and drip of trees. When out of doors it is very essential that the plants are kept properly watered, for in showery weather the soil may appear moist on the surface, while the lower part may be far too dry for the health of the plant. Owing to their delicate hair-like roots, Azaleas are readily injured by drought, also by an excess of moisture. At no time should the soil be allowed to get quite dry, though, of course, the plants require less water in winter than in summer. Thrips may be destroyed by vaporising with the XL All Vaporiser; but if the plants are freely syringed, especially on the under sides of the leaves, it will tend to keep these pests in check.

FRUIT GARDEN.

Peach and Nectarine trees in cold house (*Peach Tree*).—In the first place, make sure that the trees growing in your light soil are not suffering from the want of water at the roots. If you have any doubt on this point, give the border a good soaking of weak manure-water immediately (it cannot do any harm), and then spread a mulch, 3 inches deep, of rotten manure over the surface of the soil as far as you think the roots extend. It is quite impossible to lay down a hard-and-fast rule as to how frequently watering should take place, weather conditions, the constitution of the soil of the border, whether heavy or light, drainage, &c., being important determining factors in this matter: but once a fortnight is a fairly safe rule

to follow. Ventilation must also be governed by the weather to a great extent. We presume your Peaches are now set, and therefore require helping and encouraging into a steady and healthy growth without undue forcing. As soon as you find that the temperature in the evening has risen to from 6° to 8° Fahr. higher than the outside temperature, then it is time to give a little air on the top ventilators only. Later, if the day is sunny and warm, more air must be admitted, bearing in mind, however, never to admit a great rush of cold air at any time and so unduly lower the temperature. On warm days both front and top ventilators may be opened at the same time, but on cold days it is better to admit air by the top ventilators alone. After the turn of 2.30 p.m. the air must be reduced, as the heat of the sun will then be on the wane; and if the fruit is well set, say, the size of small Peas, the house should be closed from 3.30 p.m. to 4 p.m., syringing the trees, the border and the walls of the house, thus creating a warm, moist, growing atmosphere by the heat of the sun. The temperature may then rise to from 75° to 83° or 84° Fahr. for an hour or two. It will soon cool down as the sun declines, and towards 7.30 p.m. a chink of top air should be given, allowing it to remain on all night.

Mealy bug on Vines (*A. A. T.*).—The specimens sent are mealy bug right enough. There is no mistaking this hateful pest once one has had experience of it. Your best way will be to fumigate in the first instance with Richard's XL All Fumigator. This should fetch most of the full-grown insects down, although they may not all be dead; therefore it is necessary to spread mats under the Vines to catch them as they fall, and burn them afterwards, or they may crawl back on to the Vines. The young insects are protected by the downy stuff in which they are enveloped, and cannot be got at by fumigation. Therefore it is necessary for the Vines to be carefully sponged afterwards with tepid water and soft soap, thus removing as far as possible every trace of the pest. This is rather a tedious business, but does not occupy much time once the work is taken seriously in hand. An occasional fumigation afterwards should keep it well down during the summer and autumn; but the winter-time, when the Vines are at rest, is the best time to get rid of it, and if you will write to us again then, we will do our best to help you.

MISCELLANEOUS.

Gold-fish dying (*C. S., Henfield*).—The death of the gold-fish is in all probability due to their having been fed with bread. In a reservoir such as you possess it is not necessary to feed the fish at all. When the fish are kept in close confinement, all that is necessary is to have the water frequently changed and to feed the fish with a few ants' eggs. On no account should bread be given to them. The dead fish sent for inspection was partially decomposed on arrival. The water plants are in no way injurious to the health of the fish.

Hornbeam (*R. Crisp*).—The branch of Hornbeam sent for examination bears an abnormal development of branches usually called a Witches' Broom, and is somewhat similar to the familiar Witches' Broom often found on the common Birch. This abnormal development of branches is due to the presence of a fungus. It acts on and irritates the buds, causing them to form many weak branches instead of a few strong ones. It, however, causes no serious harm, for the abnormal development of branches is purely local, and it rarely occurs except on an odd branch here and there.

Fern growing in a bottle (*St. Martin's, Sevenoaks*).—It is not uncommon for Ferns to grow inside old bottles the necks of which have been thrust well into the soil in the outdoor garden. The conditions within the bottles are just right for the germination of Fern spores and the subsequent growth of the young plants. The spores are so minute and dust-like that they are easily distributed by the slightest breeze, or by rain or other agencies. They might come from the sweepings or dustings of a room in which spore-bearing Ferns were growing, or from other and more distant sources. They do not grow in the ordinary soil outside the bottles, because the conditions are quite unsuitable.

Auriculas (*T. S.*).—If the browning to which you refer occurs only in the older, that is, the lowermost, leaves, the others remaining quite sound, there is not much to fear. In saying this we are assuming that the plants are not soil-starved; that they have been potted within a year, or given its equivalent in a good mulch of soil. These are important, as the best vigour of the plants is only maintained by burying the stems in the soil. If the stems are lifted much out of the soil, thus precluding the possibility of new roots being formed, this would predispose the plants to lose their leaves. If the plants are all right from these points of view, the decaying foliage may be but natural after all.

Names of plants.—*Sholebroke.*—Tulips: 1, Picotee; 2, Fire Blaze; 3, Dainty Maid.——*J. P. Royston.*—1, Veronica gentianoides; 2, Saxifraga granulata flore-pleno.——*G. T. J.*—1, Begonia maculata; 2, B. maculata variety; 3 and 4, forms of Begonia Rex.——*T. W. D., Haaleigh.*—Probably a Swallow-wort or Asclepias; grow in a cool greenhouse.——*M. A. P.*—Staphylea colchica.——*A. V., Ramsgate.*—1, Adiantum cuneatum; 2, Pteris serrulata cristata; 3, send mature leaf with spores; 4, Adiantum Williamsii; 5, Saxifraga cæspitosa variety.——*Steck.*—Dendrobium primulinum.

THE TEMPLE SHOW.

(Continued from last week.)

OWING to the demand on our space last week we were compelled to hold over the following report of the Orchids and shrubs exhibited at the Temple Show.

ORCHIDS.

A magnificent display of Orchids came from the gardens of Sir Jeremiah Colman, Bart., Gatton Park, Surrey (gardener, Mr. J. Collier). The centre of this group was occupied with Odontoglossum thompsonianum in long, drooping sprays, intermingled with Cattleyas and Miltonias. The collection was a most extensive and beautiful one, including many valuable Odontoglossum, Oncidium and Cattleya hybrids. The pleasing orange tones of colour from the Odontiodas were the admiration of all.

Messrs. Sander and Sons, St. Albans, had a capital group in which Phalænopsis, Odontoglossums and Cattleyas were shown in profusion. This group was arranged with wonderful taste. On either side of a bold display of Cattleyas was a recess lined with many kinds of beautiful Orchids and relieved with handsome specimen plants, such as Cattleya Schröderæ Sunset, Odontiodas and Cattleya Schröderæ Queen Mary.

Messrs. J. Cypher and Sons, Cheltenham, showed a representative collection of Cattleyas, Odontoglossums, Cypripediums and Miltonias. The group contained fine specimen plants of Odontioda Cooksoniæ and O. Vuylstekeæ.

Messrs. Mansell and Hatcher, Rawdon, Yorks, had a large group comprising a remarkably fine collection of Odontoglossums. Cattleyas and Miltonias were also good, the plants being in fine condition and the colour of the flowers well developed.

A small but well-grown collection was sent by Mr. Harry Dixon, Wandsworth Common. This group contained a splendid plant of Cœlogyne dayana (the Garland Necklace Orchid from Borneo).

Messrs. E. V. Low, Hayward's Heath, had some new and promising Cattleya hybrids.

From Samuel Larkin, Esq., Ridgways, Haslemere, Surrey, came a nice lot of Cattleyas, Oncidiums and Odontoglossums. The group was very creditably arranged. The Orchids were good, but the group contained no outstanding feature.

John J. Holden, Esq., Auburn House, Albert Road, Southport, showed a fine plant of Cypripedium bellatulum Holdenii, having broad, overlapping petals. This was shown in a group from Mr. John Robson, Altrincham, comprising Cattleyas, Renanthera imschootiana and Odontoglossums in variety.

Messrs. Charlesworth and Co., Hayward's Heath, quite surpassed themselves with a glorious and extensive display of the best Orchids in cultivation. This comprised a bank of Miltonias, Odontiodas, Phalænopsids and Cattleyas. The arrangement was superb, and the colours were made to harmonise with wonderful effect.

Messrs. J. and A. McBean showed numerous plants of Odontoglossum crispum carrying fine spikes of bloom, also a large batch of Cattleya Mossiæ Klondyke. One of the finest of the Odontoglossums was the variety named E. V. Low, with broad, overlapping petals of perfect form.

Messrs. Armstrong and Brown, Tunbridge Wells, also had a fine lot of Odontoglossum crispum, and an interesting and variable collection of Cypripediums and a fine plant of Cœlogyne pandurata, with green flowers and a black-tipped lip.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, staged a grand lot of Cattleyas, including C. Mendelii fimbriatum and various forms of C. Mossiæ. The centre-piece of this group was occupied with Odontoglossums and drooping sprays of Oncidiums, edged with the dwarf-growing Cypripedium bellatulum and C. niveum.

The choicest Odontoglossums on this occasion came from M. Ch. Vuylsteke, Loochristi, Belgium. It was held by the Orchid committee that one or two of the varieties were not properly named, and this probably lost a first-class certificate for one of them. One of the finest of these hybrids was O. Vuylstekeæ Coronation. It was held by some that this was not a variety of Vuylstekeæ. One thousand pounds was asked for this plant, but we are not aware that it found a purchaser. The new varieties of Odontoglossum shown by M. Vuylsteke were the cause of a sensation among Orchid specialists.

SHRUBS.

Messrs. R. C. Notcutt, Woodbridge, staged a fine bank of hardy flowering shrubs, comprising Rhododendrons in variety, Lilacs, Kalmia latifolia, Spiræa Anthony Waterer, S. confusa and Viburnum plicatum.

Messrs. J. Veitch and Sons, Chelsea, showed standard Cytisuses, numerous Acers and Vitises, Andromeda speciosa cassinæfolia, Azaleas and Clematises. In the foreground were such choice subjects as Primula Unique, Enkianthus cernuus rubens, Nemesia Blue Gem and Meconopsis integrifolia.

Messrs. J. Cheal and Sons, Crawley, showed a capital lot of Acers, including A. Negundo variegata, the bronze-leaved A. palmatum atropurpureum and A. palmatum rubifolia. A very pretty blue-flowering Clematis, C. Atragene austriaca, was shown among the flowering shrubs in this collection. Some charming little Rhododendrons were also shown. The variety R. indicum Hinodigeri was much admired.

Messrs. Stuart Low and Co. showed a large group of the Australian Bottle-brush Tree (Metrosideros floribunda) in full flower.

Messrs. Barr and Sons, Covent Garden, had a unique collection of Japanese pygmy trees.

Messrs. L. R. Russell, Richmond, showed a representative collection of hardy shrubs, such as Rhododendrons, Ceanothuses and Acers.

Messrs. Paul and Son, Cheshunt, had a fine, compact group of Rhododendrons, Andromedas and Lilacs, with alpines in boxes in the foreground.

Messrs. Cutbush and Son, Highgate, and Messrs. Pipers, Barnes, had collections of clipped Yew and Box in tubs. The topiary work attracted a deal of attention.

A fine collection of Acers in great variety was shown by Messrs. W. Fromow and Sons, Chiswick.

CLEMATISES.

A very pretty group of Clematises came from Messrs. George Jackman and Son, Woking. The plants were numerous and, though not over-large, were well grown. Nellie Moser, King Edward VII., Blue Gem, Lord Nevill, Ville de Lyon and Fairy Queen were some of the best plants.

Clematises from Mr. L. R. Russell, Richmond, Surrey, were shown in considerable variety. There were just a few specimen plants and a large number of smaller plants, all most interesting.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

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THE RHODODENDRON SEASON.

THE different Rhododendrons, species as well as hybrids, are justly entitled to rank as the most gorgeous of all our flowering shrubs, and though a few of them are somewhat tender, the majority are absolutely hardy. The truly evergreen nature of most of them is another great point in their favour, as, irrespective of flowers, they are at all seasons highly ornamental. While June is regarded as the Rhododendron month, there are many that bloom before that time; indeed, R. nobleanum will, if the winter is mild, produce its bright-coloured flowers throughout the whole of that period. Some, too, serve to extend the display beyond the month of June; but, generally speaking, Rhododendrons are most numerous in the latter half of May and throughout the succeeding month. Until within a comparatively recent period most of the numerous hybrids were obtained by the intercrossing of a very limited number of species, namely, R. catawbiense and R. maximum, from North America; R. caucasicum, a very hardy species from the Caucasus; the Asiatic R. ponticum and R. arboreum from the Himalayas, to which last we are indebted for the many bright-coloured forms to be found among the hybrids of to-day. Of these species R. ponticum has become naturalised in many parts of the country, where it covers large stretches of ground and reproduces itself from self-sown seed in enormous quantities.

As the history of Rhododendron hybrids extends back as far as 1820, a century will since then soon have passed. During that time varieties innumerable have been obtained, and crossing and intercrossing so freely carried out that in many cases at least it is almost, if not quite, impossible to trace the different species from which they have originated.

The various nurserymen in the Knaphill and Woking district of Surrey have always been noted for their hybrid Rhododendrons, a reputation which to-day stands higher than ever, as witness the single-handed display put up by Messrs. John Waterer and Sons of Bagshot at the Royal Horticultural Hall on May 30 and three following days. A selection of these varieties is no easy matter, as individual tastes vary so much; but the brilliant colour of Doncaster always attracts attention, and two varieties, F. B. Hayes and Sappho, with very light-coloured flowers heavily blotched with deep purple (almost black), may be singled out at a considerable distance. The colour of the flowers alone is, however, not the only point considered by the raiser, as habit, freedom of blooming, shape of the individual flower and size of the truss are all taken into consideration.

Newer Hybrids.—Of late years other species than those enumerated have been employed by the hybridist in the production of new varieties, the exceedingly great popularity of the Aucklandii hybrid Pink Pearl having doubtless acted as a great stimulus in the matter. Though there is a deal of mystery over the origin of Pink Pearl, there can be no question that it has a strong suffusion of Aucklandii blood. That Pink Pearl well merits its exceedingly great popularity cannot be for one moment doubted. Following in the same lines we have now several others, notably White Pearl, Mrs. E. C. Stirling, Strategist, Alice and Princess Juliana.

Rhododendron Thomsonii.—This is remarkable from the rich blood red colour of its blooms and from the beautiful hybrids obtained from it. Those raised in Cornwall between this species and R. Aucklandii, such as Beauty of Tremough, Goliath and Gill's Triumph, are among the grandest of all Rhododendrons, but in hardiness they hardly seem the equal of Pink Pearl. Rhododendron Shilsonii, between R. barbatum and R. Thomsonii, is less hardy than many other kinds. A beautiful Thomsonii hybrid perfectly hardy is Ascot Brilliant, which, inheriting the character from its parent, flowers so early as to be sometimes injured by late spring frosts; but when it escapes these there is no more beautiful kind. Other species employed in the production of the newer hybrids are R. Fortunei and R. Smirnowii, which last, from its extreme hardiness and compact, free-flowering habit, should prove of considerable service in imparting fresh blood into these hybrids.

The Possibility of a Yellow-flowered Kind.—At present yellow is a tint but little represented among evergreen hybrid Rhododendrons; but one species, namely, the Himalayan R. campylocarpum, has yellow flowers. True, they are not deeply coloured, but by a process of selection a more richly-coloured yellow might be in

time evolved therefrom. The immunity from spring frosts which we have generally experienced during the present season has been particularly favourable to the earlier-flowering varieties, which have been really magnificent. A word may well be spared as to the planting of these, as they should, if possible, be always so situated that they are sheltered from cutting winds, and also that the early morning sun does not shine on them, for even if frozen and they are allowed to thaw gradually, the flowers often escape injury.

Soil for Rhododendrons.—There is a widespread idea that soil of a peaty nature is absolutely necessary for the welfare of Rhododendrons. This is a great mistake, for though they will flourish in peat, provided it is not too dry or too wet and at the same time free from lime, they do equally well in an open, well-drained, moderately moist loam. The close, compact nature of the root system of Rhododendrons enables them to be transplanted at almost any season without risk. This admits of their being employed for exhibition purposes, as has been done in London for many years, for if lifted, carefully planted and well supplied with water, the blooms will develop without check.

The Cutting Off of Old Flower-heads.—This is an item that is too often ignored in the culture of Rhododendrons, as the production of seed-pods entails a great strain on plants, and thus often detrimentally affects their flowering another season. Such being the case, care should be taken to cut off all the old flowers as soon as they have faded. H. P.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 12.—United Horticultural Benefit and Provident Institution's Committee Meeting. Southampton Royal Horticultural Society's Garden Fête.

June 14.—York Gala (three days). Royal Cornwall Show, St. Austell (two days). East Anglian Horticultural Society's Meeting.

June 15.—Linnean Society Meets, 8 p.m.

Irish Rose and Floral Society.—This is a new society which has been formed to fill a long-felt want among Irish Rose-growers and lovers of gardening in general. It is the intention of this society to hold shows in different towns each year. We observe from the schedule that the number of challenge cups and amount of prize-money for competition are very considerable for a first effort. The show will be held in the Botanic Park, Belfast, on July 28.

Grand Yorkshire Gala. — This annual event, which is held in the ancient city of York, can justly claim to embrace one of the most famous flower shows in Great Britain. This year it is to be held on the 14th, 15th and 16th of this month, and will, in consequence, provide a fitting prelude to the Coronation festivities at York. Special features have been introduced in the exhibition schedule, and it is expected that a brilliant display will be the result. As usual, the musical arrangements will be of a high order. In addition to other attractions, the bands of His Majesty's 1st Life Guards and the Royal Scots Greys will be in attendance.

Royal Agricultural Society. — The Royal Agricultural Society of England, which is under the presidency of His Majesty the King, is this year holding its exhibition at Norwich. The horticultural section bids fair to eclipse all that has been seen in recent years. The show opens on June 27, and is to be continued until the 30th. The leading features will doubtless be seen in the exhibition Roses and Sweet Peas. The classes for both are likely to be well contested.

Osmanthus Aquifolium and O. Fortunei.—Some interesting observations by Mr. O. Stapf on the above species appear in the current issue of the *Kew Bulletin*. It is stated that for a long time two plants have been in cultivation under the name of Osmanthus Aquifolium. Horticulturists have been aware of it, and twice an attempt has been made to discriminate between them and to define them technically, but with so little success that no notice was taken of it in systematic and floral works. This was, no doubt, due to the fact that the distinctions relied upon were taken from the leaf characters, which by most authors were considered as extremely variable, and therefore unsuitable. Although a considerable variability in size, shape and degree of dentation of the leaves cannot be denied, there are limits to it which allow us to recognise two types of leaves which are, moreover, constantly correlated with floral characters, and in this way make it possible to distinguish two well-defined units within what is commonly called Osmanthus Aquifolium. Judging from the illustrations given in the *Kew Bulletin*, there is a very decided difference in these two plants, the foliage of O. Aquifolium having less teeth, but sharper. There is also a difference in the floral organs. Moreover, it is found in gardens that O. Fortunei is not quite so hardy as O. Aquifolium.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The parentage of Roses.—I am sure your publication of the parentage of varieties will be received among rosarians with much pleasure and gratitude. Any authentic information as to origin, parentage, and especially date of introduction, provides much thought for the lover of Roses. I have often wondered why the National Rose Society did not issue an annual supplementary list of sorts to its members. I noted a short time ago the society was somewhat perplexed as to how it should spend a portion of its accumulated balance, which grows quite fast and which is a sure sign of popularity. Now that Mr. Daniel has come to the rescue with the desired information, it does not matter so much.—E. M.

Deciduous Magnolias.—Among the earliest of flowering hardy shrubs, and certainly of the noblest, Magnolias should find places in gardens far more frequently than is at present the case. Such varieties as stellata, conspicua or even soulangeana may be very well known, but there are some others which stand out markedly beyond them. I saw just recently, in the Coombe Wood Nursery, Magnolia Brozzonii in bloom, certainly a superb variety, as the flowers, pure white and deep cup-shaped, seemed almost as large as those of M. grandiflora. Those who wish to have a good thing should make a note of this variety. Of coloured varieties none can excel the beautiful and finely-formed flowers of purpurea Lennéi. Magnolias seem to thrive well in any ordinary good soil, but are much helped with a little well-decayed manure. In the nursery also was flowering in very rich profusion Amygdalus persica magnifica, the intensely rosy crimson double-flowered Peach. A singular deciduous tree is Aralia Maximowiczii (Acanthopanax ricinifolia), which has pointed, trilobed leafage all up the tall stems as well as on the heads. It is one of the earliest to throw foliage.—A. D.

Rose Marechal Niel. — I was much interested in reading the article by "A. P." in THE GARDEN for April 29 on the Maréchal Niel Rose. I have for long considered that this Rose does best when grown on its own roots, and, as a rule, is more free from canker than when grown on the Briar stock. I have two very old plants growing in a lean-to house here. One is 8 inches in circumference 2 feet up the stem. Just at the junction of stock and Rose both trees are almost eaten through with canker. Some time ago I got some Archangel tar, the same as is used for smearing sheep. This I mixed with some clay to keep the tar from running. I then filled up the wound with the mixture and smoothed it over flush with the bark. Next I cemented the whole all round with a layer of Portland cement. Both Rose trees are looking well and seem to be in good health. They have carried a splendid crop of some hundreds of beautiful Roses and seem none the worse for having their wounds dressed as described. I also may add that Archangel tar answers well for stopping the bleeding of Vines or other trees pruned out of season.—J. BROWN, *Balminnoch.*

The effect of tar on vegetation.—A considerable amount of correspondence has taken place from time to time as to the use of tar on roads and its effect on vegetation in the immediate vicinity of the same, the general opinion seeming to be that although the operation greatly reduces the quantity of dust, that which comes from such roads is very injurious, so that it is little use attempting to grow any plants with somewhat tender foliage in adjacent gardens. I fear this failure is likely to be very apparent in many suburban gardens and those close on high-roads where there will be a heavy motor traffic during the coming season, for tar is already very strongly in evidence alike on roads and side paths, the latter previously treated with asphalt and getting somewhat worn. In the latter case, the tar on the hard surface does not absorb the fine stuff thrown over it so readily, with the result that a high wind sends the dust drifting about in clouds. The result of the attempt to beautify the garden is rather disheartening under such conditions; but until local authorities find a substitute for tar that is innocuous to vegetable-life, I suppose owners and gardeners will have to accept the situation. It seems difficult, if not impossible, to suggest a remedy. Disappointments which have arisen in connection with the above have been recalled by an incident in a very pretty suburban garden in which tar has also played a prominent part, and which I thought might be worth noting to avoid mishaps of a similar nature. This came about through coating a long stretch of trellis-work devoted to climbing plants (Roses, Clematises, Honeysuckles and Lathyrus) with a preparation specially recommended because of its rapid drying-in qualities. There is a slight odour of tar about it, and special precautions were taken as to it coming in contact with the foliage; but the latter, notwithstanding, was badly affected, Lonicera halleana and the Everlasting Peas the worst, the leaves being covered with tiny spots.—A. G. B.

The early planting of Sweet Peas.—A. B. Essex is somewhat severe in his criticism of the early planter. It may interest him to hear of my experience this season. I sowed twelve varieties of Sweet Peas in boxes on January 21 last. The boxes were placed on an exposed ash-heap and covered with sheets of glass. In spite of severe



THE NEW PEACH
KESTREL.

Hudson & Kearns, Ltd., London, S.E.

weather in February, about 90 per cent. of the seeds germinated. As soon as the plants were above ground I removed the glass during the day, and at the beginning of March at night as well, only covering them during severe frosts. On April 1 the seedlings were planted in the open ground in an exposed position without protection. The following week the cold north-east wind blew and crippled or killed outright many perennials in the garden which had stood the winter. But the Sweet Peas appeared to receive no check at all. Not a leaf was affected, and they have continued to look the picture of health up to the present. —E. E. A., *Wallington, Surrey.*

Medal awards of the Royal Horticultural Society.—Reading the request made by the Council of this society to its respective committees to exercise more care in the future with respect to medal awards, I felt constrained to count the medals as stated in your report to have been granted not by the committees, but by the judges, with the approval of the Council, at the Temple Show, and I find that no fewer than eighty-seven were awarded at that one show. That number represents many more than any one committee, perhaps other than the floral committee, awards all the year round. It is such diffuse awards as thus seen which, if anything, tends to make medals too cheap. At the Temple Show more gold medals were awarded than bronze ones. Of that I do not complain, as the award of even a gold medal may seem hardly a commensurate reward for some of the grand exhibits seen at the show. Really, I doubt whether any committee cares to make such inferior awards as bronze medals: still less do I think any exhibitor cares to be the possessor of one.—A READER.

Polyanthuses at Camberley. — For several successive seasons I have gone to Camberley to see Mr. J. Crook's Polyanthuses. When at Forde Abbey, Chard, he had a very fine mixed strain; but when he settled at Camberley, Surrey, with ample time and space to devote to them, the work of sectionalising them into diverse colours became easy. But at no time have I seen such a singularly beautiful show as Mr. Crook has this year. It comprises some 10,000 plants, all in full bloom, and presenting beauty that, to me, was little less than marvellous. The getting of the plants into groups of colour emphasises their beauty greatly, and then such colours, too! Seen in the declining sunlight, with tens of thousands of golden eyes, all looking to the source of warmth and beauty, was indeed an experience. Massed in blocks of reds, terra-cottas, browns and buffs first, colours so popular with ladies that the section has been created in special deference to their tastes, then come huge breadths of deep reds and crimsons, then mauves and purples, beyond these pure whites, and, further still, yellows in diverse shades. But my admiration as an old and seasoned grower, warm as it is, pales before that of some amateur ladies and gentlemen who write enthusiastically of the wondrous beauty the Camberley strain of Polyanthuses has brought into their gardens, and thus given to them a new joy and delight. No doubt Daffodils in the garden are very beautiful, and they are not neglected at Camberley; but not all the Daffodils in the world could give, to my mind, that variety and beauty seen in these blocks of Polyanthuses. It is well, also, to remember that a packet of seed obtained now and at once sown will give scores of strong plants to bloom freely next spring. Mr. Crook sows his Polyanthus seed in shallow boxes, and has already many thousands of plants ready to plant out where they are to bloom next year, and no doubt the display then will be even better than it has been this year.—D. K.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

MUSHROOMS.—These must now be grown in a shed with a northern aspect or at the foot of a wall facing north. Collect a quantity of horse-manure, and when it is in suitable condition place it in the shed and make it firm by treading. When the temperature of the bed has declined to about 80°, the spawn must be put in, placing it about 2 inches deep. Cover the whole of the bed with about 2 inches of fresh loam, which must be made firm by beating with the back of a spade. When all is finished, cover the bed with a quantity of fresh straw. In a week or so it will be necessary to remove the straw and give the bed a watering, but the straw must be replaced after watering. For outdoor culture oval beds are most suitable.

Asparagus.—Go over the beds daily and cut shoots which are ready. Much good will be done to old-established beds by watering with diluted liquid manure. During showery weather a sprinkling of some fertiliser will be beneficial.

Parsley.—A sowing of this may now be made for the winter supply. For this purpose a piece of ground should be selected in a sheltered position. Another sowing may be made in two or three weeks' time. When these plants have grown large enough, they must be cut down to induce short, sturdy growth.

Peas.—Sowings of late Peas may be made now. The final sowing must be made no later than the end of the month. Sow them in trenches into which has been dug a good quantity of well-rotted farmyard manure. Autocrat and Rearguard are both excellent varieties for late use. Should the weather hold dry for any length of time, it will be necessary to water all Peas which are well advanced; then give them a good mulch with short litter. Place stakes to the plants when they are about 3 inches high.

Lettuce.—Sowings of Lettuce should be made every fortnight on a border facing north. Give the ground a thorough watering if necessary, and should the weather be very hot and dry, shade the ground till the seedlings are through.

Broad Beans.—If sufficient flowers have set, the points of the plants may be removed. This will encourage the pods to develop quickly. Should black fly be present on the plants, syringe them vigorously with soft soapy water. A sowing may be made now for late supplies in trenches as advised for Peas.

Brussels Sprouts.—Get these put out as early as circumstances will permit, and attend to watering should the weather continue to be dry. Allow 3 feet between the rows and 30 inches between the plants. Autumn Giant Cauliflower and early Broccoli may also be planted out, allowing about 30 inches between the plants. The planting of winter greens must be persevered with as opportunity offers.

Seakale.—Young plantations will now need attention in regard to thinning of the crowns. Examine them carefully and leave only one or two of the best crowns on each plant. Should the season be dry, the plants will need watering occasionally.

Coleworts.—Sow seeds of these on a north border, and keep the soil moist and shaded till the seedlings are well through the soil. It may be necessary to cover the seedlings with nets to keep off birds.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES will now be ripe or approaching that stage. The house may, therefore, be kept somewhat drier, with just sufficient heat in the pipes to avoid damping of the berries. The bunches should be carefully looked over from time to time, and any shanked or decayed berries removed. Black Hamburghs will not keep very long at this season in a plump condition, and if it is necessary to keep them in good order for a few weeks after they are fully ripe, it may be advisable to afford a light shading. When the crop is removed, the Vines should be syringed daily to prevent attacks of red spider, which is often troublesome at this time. It usually makes its appearance during the ripening period, and the drier conditions of the atmosphere seem to encourage its rapid development. Red spider is a microscopic insect pest which invariably appears on the under side of the foliage, causing the latter to turn yellow prematurely. Frequent syringing is the surest remedy.

Later Vines.—These should not be stinted in the supply of water. Liquid manure may be applied liberally to all Vines swelling their fruits. Pinching should be carried out regularly, the lateral growths being stopped at the first leaf unless a scarcity of foliage exists, when these may be left of a sufficient length to ensure the roof being well covered with leaves. Where the houses have a southern exposure and the sun strikes them early in the morning, it is advisable to open the top ventilators a little when giving the last look round at night, as scorching of both leaves and berries has been known to occur for want of this attention.

Young Vines that are not yet fruiting after receiving their first pinching should be allowed to grow freely without much stopping, as a vigorous growth in the foliage is the best indication of a corresponding spread of roots in the new border. A light mulching of stable manure may be given to encourage the roots to keep near the surface. Other stimulants should not be necessary in properly-constructed borders.

Peaches.—The earliest of these will now in many cases be gathered, but the trees on that account should not be neglected, as the success of the following year's crop greatly depends on their present treatment. The borders should be tested, and if dry should be thoroughly watered, and with this watering a dressing of superphosphate will be beneficial. Remove any useless shoots, which will be found chiefly among those which have carried the fruit this season, and tie down any growths of the current year that are in the proper position to furnish the fruiting wood for next season, so that little or no winter pruning will be necessary. The proper thinning at this time enables the tree to be fully exposed to the sun, so that the wood becomes properly matured. Syringe the trees twice daily, and as soon as growth stops open the ventilators to their full extent on all favourable occasions. Where early forcing is practised it is necessary to have a good selection of the earliest varieties. Among Peaches and Nectarines the variety I have found to come to maturity in the shortest time is a Peach of recent introduction, Duchess of Cornwall. It ripens three weeks in advance of Early Rivers' Nectarine. It is a free and constant bearer, of good appearance and of excellent flavour. It has, however, a very tender skin and does not part from the tree readily, so that very careful handling is necessary when picking or packing for a railway journey. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE ROSE GARDEN.

NEW ROSES AT THE TEMPLE SHOW.

I HAVE seen nearly all of the Temple Flower Shows, but this year the quality of the various exhibits struck me as being a decided advance. Certainly the Rose was not lacking in this respect. Surely we cannot hope to attain to greater perfection of bloom, foliage and stem than was manifest in Messrs. G. Mount and Sons' exhibit! But it is mainly with the new or comparatively new Roses I wish to deal now, and I must certainly begin with Mrs. George Shawyer. Under high cultivation, as shown it demonstrated what the Rose was capable of, and I do not know that I have ever admired a pink flower so much as I did those fine deep-petalled blooms, suggesting a glorified Mme. Jules Grolez in tint, but with long flowers, deeper than Killarney or Mrs. W. J. Grant. When I saw this Rose at the Botanic Gardens last July it did not appeal to me at all, so that we must be careful not to allow indoor-grown Roses to run away with our judgment, for, of course, under glass, especially by the end of May, one can give the plants the most perfect cultural conditions possible, which will rarely be secured outdoors. Lady Hillingdon, too, was superb, but here again it may not be nearly so useful outdoors as, say, Rayon d'Or or Arthur R. Goodwin, two glorious yellows. What grand standard plants of this latter were to be seen in Messrs. George Paul and Sons' group from Cheshunt, typical in their spreading heads of what a standard should be! It is a grand Rose, somewhat flat perhaps, but for the garden a real gem.

Messrs. A. Dickson and Sons of Newtownards are much handicapped at this show by the long distance they have to come. Their exhibit bore traces towards the afternoon of the trying ordeal the plants had passed through. How worthily this firm maintain their pre-eminence as raisers was manifest not only in their own exhibit, but in other groups where Molly Sharman Crawford, Mrs. David Jardine, George C. Waud, Lady Alice Stanley, Mrs. A. Munt and others were to be found. Molly Sharman Crawford is one of the finest introductions of the last ten years. When grown as it can be it will put all other white Roses completely in the background, for it will grow well, making huge wood and foliage. Mabel Drew will be a general favourite. Messrs. Dickson call it a Tea Hybrid Tea, by which they mean, I presume, a nearer relation to the Teas than the Hybrid Teas. The form is truly superb and the colour deep cream, passing to canary yellow in the centre. This will be a splendid pot Rose. Mrs. Foley Hobbs will be a great gain to this class. It is a really splendid Tea Rose, of great size and perfection in form. The colour is delicate ivory white, with a pink-tinted centre. It seemed to me to recall a lovely old Tea Rose, Souvenir de Paul Neyron, only it is of very much larger size. Duchess of Westminster bids fair to become one of our best rose-coloured varieties. The flowers are large, with full and very high centres, and I shall expect great things from it. Mrs. Walter Easlea was well shown, both by its raisers, Messrs. A. Dickson and Sons, and Messrs. F. Cant and Co. It is a glowing crimson colour and very sweet. The buds are long and tapering, which will make this variety much sought after, both for forcing and the garden. Exhibitors will also find it most useful as a corner bloom. Alexander Hill Gray is a lovely soft yellow, something like a fuller Mme. Hoste, and a shade or two deeper than Medea.

Messrs. George Paul and Son of Cheshunt had a grand novelty in Freda, a Rose certain of popularity by reason of its size and lovely form and fulness. The colour is a reddish pink outdoors, but under glass a sort of Bridesmaid shade. A good point about this Rose is the fact that it is a good grower.

Mr. George Prince is not slow to secure good exhibition Tea Roses, a class of which he is the leading exhibitor. In his group I noticed Messrs. Soupert et Notting's novelty, Recuerdo Angelo Peluffo, a cross between Melanie Soupert and Mme. C. Soupert. It is a fine Rose, with yellowish and pinkish shadings, and will doubtless figure very prominently in the Rose Analysis at a future date. Portia is a big showy Rose which exhibitors will find useful. So also is Alice Cory-Wright, a variety of perfect form and very full. Frances Charteris Seton is a deep rose pink flower of good size and depth, and it possesses a sweet fragrance. Claudius makes a fine show, and will no doubt prove to be a useful Rose, although of a colour that is not admired by everyone. Somehow rose-coloured flowers do not attract attention as one would expect, for they are most pleasing in the garden, and as a rule are very sweet, as this one is. We have so many apricot-tinted Roses now, or the variety Sallie would have made a sensation. As it is, I am afraid it will have to give place to established sorts such as Joseph Hill, which will take some beating.

Mrs. Arthur Coxhead was well shown by Messrs. F. Cant and Co., and it is a most promising flower, very deep and lasting. Jongkheer J. L. Mock was also splendid, and will be a fine Rose for show purposes. Principal Pirrie I like. It is somewhat reminiscent of an old Rose, La Fraicheur, but apparently a better grower.



HYBRID TEA ROSE MARGUERITE GUILLOT.

Rambler Roses were somehow not strong on this occasion; or is it that we are becoming satiated with them? American Pillar was good in more than one group. Excelsa was not equal to the plants shown last year, although it is a fine sort and should be planted in every garden. Sylvia is pretty and, being perpetual, is a gain in the right direction; and Arcadia, one of Mr. Walsh's novelties of two years ago, is a very neat little rose pink flower.

Mr. G. Prince had a lovely dwarf perpetual-flowering Hybrid Musk in Lady Violet Henderson, which will be a useful Rose for bedding work.

ROSE MARGUERITE GUILLOT.

THE name of Guillot is a very honoured one among rosarians, for do we not remember the glorious Teas that were wont to come from this establishment, to wit, Mme. de Watteville, Catherine Mermet, Comtesse de Nadaillac, Hon. Edith Gifford, Mme. Cusin and Mme. Hoste? I could never understand why these raisers dropped the Tea Roses, comparatively speaking, and took up Hybrid Teas, which every raiser is experimenting with. Marguerite Guillot is a creamy white seedling or sport of Caroline Testout apparently, for it possesses the habit to a large extent of this latter Rose. It never made many friends, possibly because it was unknown, and certainly it was a Rose deserving of more extensive culture. Although not so useful as Admiral Dewey, because not so free, still, it is a Rose I can recommend, as I always do those Roses related to Caroline Testout, because if they are lacking in fragrance (which some deny) they have that excellent growth typical of the parent variety. Another very lovely white variety emanating on the one side from Caroline Testout is Souvenir de L. Rose Vilin, a Rose I can strongly recommend. P.

TREES AND SHRUBS.

SEASONABLE NOTES ON HARDY SHRUBS.

ERICA ARBOREA has been splendid with us this season, its scent reminding one of Sweet Almonds. This Heath grows very rapidly when once well started, and can be grown from seed to the flowering stage in about four years, by which time it is a bush of good proportions. Some planted here about four years ago are now 6 feet to 7 feet and 8 feet high, and one mass of flower. This variety makes a fine succession to E. Veitchii and E. lusitanica, both of which have been little short of marvellous. We planted some 700 on a sloping bank, and these are now most effective. The tallest plant is about 12 feet high and nearly as much in diameter.

Rhododendrons and Azaleas have been wonderful this season. The various types of Aucklandii, with its hybrids, are beautiful. R. Thomsonii has been gorgeous. R. arboreum, with its blood red flowers, as well as other types, have been magnificent. R. glaucum, R. ledifolium, R. lepidotum and seedlings raised here are too large an item to be described in these notes. We have about seventy varieties of Rhododendrons and Azaleas, and these have been charming, especially when seen from different heights. A lot of home-raised seedlings from the best varieties have produced some beautiful colours, and considering the ease with which these are raised, it is a wonder that owners of gardens do not raise more for themselves.

Corokea Cotoneaster has also been most charming. There is one very fine specimen here in flower about 8 feet high, with thousands of little star-shaped flowers, which are bright yellow and sweet-scented. It is spoken of in nurserymen's catalogues as a dwarf, much-branched shrub; but, as a matter of fact, it grows well and soon assumes a nice height. We have a good number of plants in different stages of growth, which always, and more especially when in flower, attract the enthusiastic visitors. It is very easily propagated by cuttings, which should be put in about the end of July. It makes a conspicuous dot plant for a few years in the rock and alpine garden, and when too large for such a position can be moved to the shrubbery.

Citrus trifoliatus (Ægle sepiaria) is an interesting plant and more hardy than many suppose. It has just given us a beautiful display of its white flowers, which open before its small foliage appears. As a rule the flowers yield a plentiful supply of fruit, and these are interesting all through the autumn. This shrub can also be propagated by cuttings. The plant is not particular as to soil, growing as it does in heavy soil on both south-east and west positions with no protection during winter.

Rosa sericea Pteracantha is a very charming early-flowering Rose, and on May 19 was in full bloom. Its pretty white flowers contrast beautifully with the red wood and long bright red thorns. The habit of the plant is exceedingly artistic and graceful; it is, moreover, a good grower and does very well under the partial shade of trees.

Rosa sinica anemonæflora is another charming early single Rose that opened its flowers on the 17th ult. This variety comes along nice and early when given a wall, though it does equally well, only later, in the open on a pergola, and also climbs up tripods or trees. The flowers are very large and of a delicate peach pink.

Olearia nitida has gone through the winter and is flowering very finely on a wall. O. gunniana is also a mass of Daisy-like flowers, and makes a very fine dot plant in the shrubbery or alpine and rock garden. This plant can be propagated from cuttings, which soon make nice little plants. Any ordinary soil mixed with a little fresh loam and leaf-soil will supply all the food they require.

W. A. COOK.

The Gardens, Leonardslee, Horsham, Sussex.

THE KEW BROOM.

(CYTISUS KEWENSIS.)

ONE of the most beautiful of shrubs of prostrate habit for the rock garden or for covering a sloping bank is Cytisus kewensis, a charming hybrid Broom raised at the Royal Gardens, Kew, and worthy of being associated with the name of that great national home of plants and scientific botanical work. It is one of the most attractive of the shrubs of late April and May, and retains its beauty for a considerable time, covering its slender, prostrate, pliant branches with veritable wreaths of creamy flowers. The illustration shows a plant which has been in its present position, the south side of a low rockery, for fully six years, and is now about 4½ feet in diameter. When covered with bloom, as the illustration shows, it is one of the most beautiful plants of its time, and never fails to elicit the admiration of every visitor to the garden. Cytisus kewensis presents no difficulty in its cultivation, and is perfectly hardy, standing the most severe winters of recent years without injury, and annually growing in size and in beauty. It appears to grow well in ordinary soil, but apparently prefers one of a comparatively light nature, with the accompaniment of a sunny position. Nothing could be more beautiful for hanging over the face of a rock than this Kew Broom. Cytisus kewensis was raised from C. albus and the little C. Ardoinii, and has a companion plant with yellow flowers, also raised at Kew. and named C. Beanii, although the latter has not yet become so well known as C. kewensis, and is more difficult to obtain from nurserymen.

Dumfries. S. ARNOTT.

THE FLOWER GARDEN.

COLOUR GROUPING OF SOME MAY TULIPS.

BY the courtesy of Messrs. Barr and Sons, who have been good enough to send me blooms of some of their fine Darwin and border Tulips, I am able to put together a selection of these grand flowers in some definite ranges of colouring that I wished to secure, but was unable to determine without seeing the blooms together. In a recent number of THE GARDEN mention was made of the beauty of combination of the grey-purple Rev. Ewbank and the fine pure purple Morales. As a keen student of colour in flower grouping, I am indeed glad to see these beautiful things and to endorse the opinion there given. It is much to be hoped that more purples of the Morales class will be evolved; that is to say, pure purples tending to violet. Of red-purples there are plenty, and grand things they are. Among the purples in this collection of blooms that would group well together are Faust, a splendid blackish red-purple; Grande Monarque, lighter and redder; Purple Perfection, large red-purple; and D. T. Fish, rather redder. All these, including Rev. Ewbank and Morales, are grand together or closely grouped.

Another good range of colouring is found among the bronze yellows, from light to dark, comprising Bronze King, a low-toned yellow, bronze-shaded; Bronze Queen, a shade lighter; Golden Bronze, a large and splendid flower, deeper in colour; Don Pedro, darkest yellow bronze, extremely rich in tone and colouring; and Louis XIV., of the same deepest yellow bronze, heavily shaded with purple.

A quite distinct range of colouring may be called flame-coloured. The word "flame" is often misused as a synonym for scarlet, but is better applied more carefully and with a distinct significance to such flowers as the following, which would make a fine group in near companionship: Salmon Prince, Orange King, gesneriana aurantiaca, all orange flame-coloured; Panorama, a very fine large flower a shade redder; Orange Globe, rather nearer scarlet; and La Merveille, a clear, soft flame colour. No one would regret planting these fine things in such groups as those suggested in the May garden.

G. JEKYLL.



A GOOD SPECIMEN OF THE KEW BROOM, CYTISUS KEWENSIS.

SWEET PEA NOTES.

THE FLORAL COMMITTEE.—The terrible fuss that there has been about the floral committee of the National Sweet Pea Society has come to an end by the extraordinary general meeting upsetting the best work of a special sub-committee appointed to consider the whole question and refusing to accept the recommendations of the general committee. It must be rather galling to busy members of the committees to see the work that they have done so well and at so much cost of time and money to themselves thrown out by a small meeting, some members of which had never attended a meeting of the society before and had never shown the smallest interest in its working. For all the present new rules, it may be said that the composition of the floral committee remains as it was before, and if it does not meet with full approbation (which everyone hopes that it will do) and volunteers are called for to do the work over again, it is quite certain that some of the keenest brains and the most enthusiastic of the society's supporters will firmly decline to waste their time. The whole affair was something in the nature of a

farce, and the proceedings were characterised by exhibitions of more or less brilliant wit and a conspicuous absence of serious business determination. One rule says that no member of the society shall visit the trials until the floral committee has finished its work for the year without the explicit consent of the committee. Any reader of THE GARDEN who has been to Sutton Green, or who ventures to go, may consider himself or herself a pariah. It is only those who do not support the society who can go, read, mark and learn from trials of which no one save the secretary and superintendent know anything.

THE PROMISE OF THE SEASON.—Let it be said without preamble that the promise of the present season is vastly better than it has been at an even date in any recent year. Taken as a whole, plants in all corners of the country are magnificent, and if some of them are not just as forward or quite as wonderfully vigorous as they have been in the past, they are none the worse for it; on the contrary, they convey the impression of latent power, and will produce grand spikes and blooms later on.



A FINE COLONY OF CELMISIA HOLOSERICEA.

One hears rumours of disease in various quarters, but up to the present there is nothing serious to worry about, and probably there will not be if we continue to be blessed with favourable weather; but should we get a close, dull, moist spell, the chances of disease development will be considerably increased.

A FORETASTE.—We have enjoyed a foretaste of the season's promise already in Mr. Breadmore's splendid display at the Royal Horticultural Hall and the several magnificent groups which were arranged at the Temple Show. These have been fully reported upon in THE GARDEN, and nothing more than passing reference will be made now. The flowers, with one exception, were from indoor plants; but it is natural to suppose that growers who can produce such excellent blooms indoors can do equally well, or better, out of doors, and I therefore gladly accept them as promises of greater charm as the season extends. It was a matter for regret to the supersensitive to see that some of the spikes at the Temple Show were well on the coarse side; but perhaps we shall see less of this defect at the principal exhibitions this year than we did last, for it was then all too plainly apparent in many directions and from sources not hitherto suspected.

STIRLING STENT.—I am wondering what is the general impression as far as this variety is concerned. My own experience has been unhappy from the commencement of the year. The seeds germinated badly and the seedlings were very weak; however, I had had varieties grow right out of early weakness, and I was optimistic. Now I am rather the reverse, for all my plants are wretchedly poor compared with others of similar shade, as well as those that are distinct. Those indoors have yielded nothing worth looking at, but have demonstrated the fact that there are two distinct shades in it, while those out of doors do not look as though they would make champions. We shall see. A. B. ESSEX.

CELMISIAS AT KEW.

DURING recent years special attention has been given to the cultivation of Celmisias at Kew, with the result that several species have now become established, some of which are at the present time a mass of bloom. They are planted on a small rockery in a somewhat sheltered corner with a north-west aspect; therefore they escape the hot midday sun during the summer months. They have been found to thrive much better in a shady and moist situation than in a sunny one.

Celmisias, although quite hardy, require protection from damp during the winter, also from the cold east winds, so often experienced during the early spring; but by placing a light over them in very wet weather, and also to protect them from the cold winds, they will not then fail to give a fine display of their large Daisy-like flowers during May and June.

They should be planted in a light, open compost, consisting of one part loam to two parts leaf soil, with a liberal quantity of broken sandstone added. Lightly damping them overhead during hot weather will prove beneficial; but on no account must they be allowed to become dry at the roots.

Celmisias chiefly inhabit the mountains of New Zealand, one or two species being Australian. Kew is indebted to Captain A. Dorrien Smith, who presented plants and seeds of several species, while other species have been raised from seed sent from the Dunedin Botanic Gardens.

The undermentioned species are now in flower, all of which have white flowers with a yellow disc:

C. Brownii.—This is one of the largest species. The leaves are 10 inches to 16 inches long by 3 inches broad; the under surface is clothed with a soft brown tomentum. The flowers are 3 inches in diameter.

C. coriacea also has large leaves, and is known as the "Kid-glove" Plant, so named on account of the white felt that clothes the leaves. Flowers are 4 inches in diameter.

C. holosericea is very floriferous, as may be seen in the accompanying illustration. Each plant forms a large tuft; the leaves are deep green above with a white silky under surface. The flowers are 3 inches across.

C. petiolata is of robust growth, resembling C. Brownii in foliage, but the flowers are smaller. Other species at Kew are C. discolor, Mackayii, Munroi, hieracifolia, Lindsayii, robusta, spectabilis, viscosa and verbascifolia. W. T.

GLADIOLUS PINK BEAUTY.

THIS Gladiolus may be said to be the first of an entirely new type. It is a large-flowered variety, blooming at the same time as The Bride and others of that section, and it may be expected to find great favour where an early display is wanted. The introducer is Mr. P. Vos of Haarlem, Holland, at whose request I grew a number of bulbs in the garden here, he being desirous of testing its early-flowering qualities in Scotland. It has also been successfully tried in various parts of England, so that there is no doubt about its earliness. Planted with Childsii, Lemoine's hybrids and named varieties of the gandavensis type during the last week of March, Pink Beauty bloomed seven weeks in advance of any of the others.

THOMAS HAY.

Hopetoun Gardens, South Queensferry.

PHLOX SUBULATA NELSONII.

WE have now some lovely varieties among the Mossy Phloxes, or Moss Pinks as they are frequently called, and some of the older ones look as if they would be superseded by varieties raised at Newry and other places. But it will be a lovely Phlox indeed which will drive P. subulata Nelsonii from its favoured position as one of the very best of its class. It was originally raised at Aldborough by the late Rev. J. G. Nelson, who gave us several charming Mossy Phloxes, and was named Nelsonii on that account. It is one of the most beautiful of the subulata section, and, in fact, none in the writer's garden, where quite a representative collection of the best is cultivated, can vie with it in general beauty. The plant forms a mass of small, spiny, awl-shaped foliage, which is pretty at any season, and this in the month of May is covered almost completely, as the illustration on the next page shows, with dainty white flowers.

Seen with the sun shining upon a mass of these flowers, the effect is almost dazzling in its brilliance, while in the subdued light of the summer evenings it is still more beautiful. The plant here

figured is growing in ordinary light loam on a low rockery, and is hanging down to the path which leads alongside. The exposure is south-south-east, and the plant receives sun for the greater part of the day. Few flowers are more admired than this little awl-leaved Phlox, which ranks among the very hardiest of the class to which it belongs. Propagation is effected by cuttings, struck in early summer, just after the flowering is completed, either by taking off branches with a "heel" of the old wood attached or using short cuttings of fresh growths. I prefer the former, but many fail with cuttings of these lovely little Mossy Phloxes.

Dumfries. S. ARNOTT.

PINKS ON A TERRACE WALL.

A DRY wall with a southern exposure is chosen for these hybrid garden Pinks, for the flowers require all the sunshine possible, while the roots revel in the cool depth of soil combined with the good drainage afforded by the wall. Now is the time to arrange for a wall of Pinks, either by sowing the seed at once or planting autumn-struck pipings. Pinks never grow so happily in this garden as on this terrace wall; here one sees the true habit of the plant and its delight in a hanging position. I know of no flower—if grown in bold masses—so satisfactory all round for wall planting as the Pink, blooming as it does all through the summer, scenting the air with perfume, refined and beautiful in its variety of colouring; in winter charming in the grey-green tones of its foliage; and, with all this, looking after itself and asking for little attention.

At the first planting some well-rotted manure was dug in at the top of the wall; but, judging by the Pinks on the wall itself, this help is unnecessary. Cuttings planted in August root readily by the autumn, and give better results than division of the old plants in the late summer.

Abergavenny. E. M. WHITEHEAD.

COLOURED PLATE.

PLATE 1427.

A NEW PEACH.

IN these days, when so much attention is being given to the raising and introducing of new flowering plants, the excellent, though of necessity slower, work that the raisers of fruits are doing is apt to be, at least to some extent, overlooked. That a new fruit of exceptional merit is of greater value from a utilitarian standpoint no one will, we think, deny, and for that reason we are presenting with this issue a coloured plate of the new Peach Kestrel. This is a second-early variety obtained by crossing Early Rivers' Nectarine with Hale's Early Peach. It is a large, freestone fruit, and ripens at the end of July, usually about a week earlier than the well-known and excellent Peregrine, which variety it resembles in habit and free-bearing qualities. The fruit is firm, melting, juicy and of good flavour, and has the additional advantage of hanging for a long time on the trees. Like many other excellent fruits, Peach Kestrel was raised by Mr. Rivers of the well-known firm of Messrs. T. Rivers and Son, Sawbridgeworth, to whom we are indebted for the fruits from which our coloured plate was prepared. As a pot tree this Peach is excellent, and some remarkably good examples were exhibited by Messrs. Rivers last year.

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN JUNE.

VINES which were started in a mild heat early in March come into flower during the last week in May, and very early in June the thinning out of the surplus berries must be attended to. Where there are nice bunches to deal with, the thinning is a very pleasant occupation. An experienced cultivator knows exactly which berries ought to be removed directly he looks at the bunch, and he can forthwith thin the bunch without any hesitation or mishap, leaving in just those berries that ought to be left. Now, an inexperienced cultivator cannot be expected to do the work as expeditiously or as well. It requires practice, and as there are surplus bunches which must be cut off, the novice should practise on a few of these first, and when he decides to thin the good bunches he should commence with the smallest first.

An experienced cultivator is able to remove all the berries requiring to be cut out at one time; but the novice must not attempt to do so. It would be wise on his part to thin out a few of the surplus berries first, and about ten days afterwards, when the berries have swelled up considerably, do the final thinning. The following points must be observed by the beginner in Grape culture: (*a*) First thin out the small or seedless berries. (*b*) Commence at the point or bottom of the bunch, and at the point of each wing or side branch of it also, and finish at the top or shoulders. (*c*) Of the three berries which generally constitute the points the central one must never be cut off, and in the case of varieties with long footstalks, such as Black Hamburgh and Muscat of Alexandria, all three berries are usually retained. (*d*) Berries that turn inwards must be cut out, and the bunch should be more severely thinned near the bottom or point than at the top or shoulders, because at the top of the bunch there is more room for the retained berries to swell in. Furthermore, late-keeping varieties, such as Black Alicante, must have more berries cut out from the centre of each bunch than early ones, as during the autumn internal berries are liable to decay, and if overcrowded they cannot easily be removed. (*e*) Some varieties are shy-setting, Muscat of Alexandria, for instance. When engaged in thinning out the berries of such, it is well to be careful not to cut away more than the seedless ones until it can be plainly seen that more berries contain stones than there will be space for them to swell in. (*f*) Use a small forked stick with which to steady the bunch and a pair of proper Grape scissors, making sure at all times that they are bright and clean. Do not touch the berries with the fingers nor rub them with the hair or hat on your head. Berries that are so rubbed when quite small will be marked with rusty-looking streaks later on. The shoulders of large bunches may be tied up a little with strands of soft matting. Small and medium sized bunches do not require tying up.

After Thinning.—Directly this work is finished the cultivator must give the borders a thorough soaking with tepid water, and immediately follow this with two doses of manure-water given at intervals of ten days. The soil of the border must always be moist when manure-water or artificials are applied. Keep the atmosphere moist by damping the paths and borders several times each day and always at closing-time. A properly-thinned bunch of Grapes will present a very loose appearance for a short time. I say a short time, as it is really wonderful how quickly the berries swell up and thus give to the bunches a weighty, noble appearance. Where the vineries are provided with heating apparatus, the pipes must be warmed on dull, cool days. From the middle of June onwards the top ventilators must be opened about 1 inch wide at ten o'clock at night. This amount of ventilation should be increased very early the next morning, according to the state of the weather. Such timely ventilation prevents the scorching of the leaves and berries. In my next article notes on the scalding of the berries and how to prevent it will appear, with other useful matter.

B.



PHLOX SUBULATA NELSONII IN A SCOTTISH ROCK GARDEN.

THE KITCHEN GARDEN.

AUTUMN AND WINTER CABBAGES.

THE spring Cabbage crop is such an important one that often the amateur overlooks the importance of an autumn and winter supply. I am aware that at the season named there is usually a good supply of Brassicas, so that the Cabbage is not so much missed; but my aim is to point out the superiority of the Cabbage in a young, tender state to other vegetables, its easy culture and value to the amateur on account of its smallness, the space occupied, and its hardiness. The Colewort is not nearly as much grown by amateurs as it deserves to be; indeed, I have often been surprised to find that it is unknown to small growers. This may be termed a distinct early autumn Cabbage. A good variety is Favourite, a very dwarf variety, having few waste leaves, conical in shape and most valuable for spring sowing. Little Gem is also very dwarf and an ideal amateur's Cabbage; this remains good for a long time when fully matured. These two are very fine for a late supply; that is, for use from September to December.

The Colewort for an autumn supply should be sown in June in the South. I have sown early in July, as the plant makes a rapid growth. The best results are obtained from good land and by planting sturdy seedlings in a small state, not allowing them to linger in the seed-bed. Seedlings of the Rosette Colewort will make full-sized heads in three months from the date of planting. They do not require much room—15 inches apart, or, say, 18 inches between the rows and 12 inches between the plants in the row; but it must be understood that the Colewort Cabbage is a tender variety. It is useless to plant it in exposed gardens for a midwinter supply; it is an early autumn variety. The Hardy Green Colewort is hardier, but is by no means equal in quality to Favourite or Little Gem. The larger Rosette Colewort when full grown splits badly and is not useful as a winter Cabbage.

Sown in June or July, the growth of such varieties as Favourite and Little Gem is remarkably rapid, and they are, in addition, very hardy. Being of close, compact growth, with a short leg or stem, they are valuable for amateurs, and their hardiness makes them an ideal late autumn vegetable. I am fully aware that in many gardens autumn Cabbages are not grown. The spring Cabbages are late. These are cut over and allowed to produce sprouts, but they in no way can compare with a true autumn supply, and both Favourite and Little Gem can be planted 12 inches apart. They are of close growth, with few outer leaves. There is another point in the culture of autumn Cabbages, and that is, the land gets much better cultivation when these are grown in a short season than when a bed of spring Cabbage is used for sprout production and the plants occupy the soil for a long period.

Winter Cabbage should also be sown in June or July, according to the soil and locality. We have true winter forms in St. John's Day and Christmas Drumhead; but if only one late kind is required, I would advise the last-named, as it is the best winter variety grown, not large, but having a short leg or stem, with a firm head, drumhead shaped; it is a splendid keeper, is not readily influenced by frost, and there is no difficulty in having this variety in excellent condition for the table from December to March. The St. John's Day is of more upright growth, and is good to precede the Christmas Drumhead. These last-named varieties should not be sown too early; indeed, in the South I made it a point to sow early in July and plant a month later for the supply from January and later. In planting it is well to plant in a young state, so that the stems are dwarf and well protected by the leaves. Plant firmly and keep free of weeds. There are other varieties that can be grown at this season, but I have named the best, both as regards hardiness, compact growth and the best quality. These, grown as advised, will fill in a void at a season when good, small, tender Cabbages are appreciated and are by no means plentiful.

G. WYTHES.



PINKS ON A TERRACE WALL. (*See page* 275.)

THE TOWN GARDEN.

NEWLY-PLANTED BORDERS.—One of the most important matters relative to newly-planted herbaceous subjects is the amount of attention such things receive subsequent to their being planted, and upon such attention much of their future success depends. For example, the planting may have been done early or late. The examples may have been good of their kind or well-established plants capable in good ground of looking after themselves. There is, however, just the possibility of their being quite the reverse, and in such a case they will require some looking after. Recently-planted divisions of Delphiniums, where these were but feebly rooted at the planting-time, will need some care, and possibly will not be in a very flourishing condition. To look after these with watering-can and hoe is a matter of necessity now, the more so in the event of a long spell of hot, dry weather ensuing. Should great heat be experienced, a light mulch of short manure will prove acceptable to the plants, or, failing this, the mowings from the lawn may be used.

THE VALUE OF A MULCH depends not a little upon the nature of the soil, and the same is true of watering during times of great heat. Very light soils over much gravel become dust dry several inches deep, and shallow-rooting subjects quickly tell the tale. Much watering in such circumstances is wrong. The soil is hot and dry and evaporation rapid. To suddenly cool the soil with a deluge of cold water may produce a chill, and pneumonia may follow, and even death to the subject.

CLAY SOILS or those of a close, retentive nature behave differently. Such as these, because of the heat and the rapidly evaporating moisture, contract, and huge fissures, deep and dangerous to plant-life, quickly form if the gardener does not interfere. With such as these the frequent moving of the surface soil by the use of the hoe or small fork is highly beneficial, and if followed by a light mulch of old Mushroom-bed manure, so much the better.

ANOTHER CLASS OF SOILS equally difficult to garden in if not cared for are those whose surfaces in common phraseology are said to "cake" or run together. Virtually, what happens here is that the skin's spores are blocked, and heat and air for the time being are excluded from the soil. This may be followed by plant sickness if not early corrected. The soils that cake usually are those of fine texture or some of the sandy clay soils that are unintelligently dealt with. Soil surfaces that are finely raked down frequently run together after much rain, and with heat following, a perfect crust, impervious to light, air and warmth, will be found. This crusted surface should not be permitted to exist.

HOW PLANTS BEHAVE in certain soils is a subject perhaps to which too little thought has been given. The majority of plants, and shallow-rooting subjects more particularly, take quickly and kindly to all light loamy soils, and are soon established. The plants spread more freely and more quickly exhaust the soil; hence more frequent transplanting and enriching are required. The same plants on clay soils take much longer to become established, and in some instances a year may elapse before much progress is noted. The plants, however, that eventually succeed in soils of a clay nature endure much longer than those in light soils, and may remain in excellent condition for years; hence there is a sort of compensation in such matters, though much is possible of accomplishment in those instances where a careful selection of plants is made. Pæonies, Red-hot Pokers, Michaelmas Daisies, Alstrœmerias, Flag and other Irises, and Globe Flowers are among those subjects delighting in stiff loam, and remain in presentable condition for years together.

S. N. N.

GARDENING FOR BEGINNERS.

THINNING RASPBERRY CANES.

TO grow Raspberries satisfactorily it is very necessary to thoroughly understand the character of their growth, and the beginner who desires to succeed should apply himself to acquire the knowledge that must inevitably lead to success. I am not concerned in the present instance so much with the matter of general culture; it is the aim of the present notes to make known the way in which the thinning of the growths is carried into effect. The beginner should understand, however, that to grow the Raspberry well deep culture is of the highest importance. The quarters also should be well manured previous to the planting of new canes, as deep digging afterwards is out of the question, owing to the surface-rooting character of this much-prized subject making this operation prohibitive. The Raspberry prefers a somewhat moist situation, and few hardy fruits of our garden respond in more liberal manner when treated to copious applications of water and manure-water.

We have now arrived at that period of the early summer when the work of thinning out the growths should be done. In many gardens the Raspberry is sadly neglected, and yet I question whether any other hardy fruit yields so satisfactory and heavy a crop as does this subject. The beginner, through ignorance, no doubt, is disposed to allow far too many growths to develop, and in consequence of this indiscretion the canes, as a whole, are less strong than they should be, and the yield of fruits is less than it might be, and they are also poor in quality. Assuming the plantation or Raspberry quarters were mulched with well-decayed manure, the plants should evolve growths of a robust kind, and in well-prepared soil they should develop freely. If too many shoots spring up—and this seems to be almost inevitable—their number must be reduced. That the beginner may quite understand what these few notes are intended to teach him he should proceed to inspect his Raspberry canes forthwith. A careful inspection will reveal the fact that the growths that were made last year are the canes that are developing their fruits now, and the young growths in various stages of development that are more or less crowded at the base of each plant are the canes that are to yield fruits next season, and that, therefore, need every care to ensure their proper development. In order to teach the novice what the thinning of Raspberry canes really means, in Fig. 1 is shown a specimen plant that was photographed in the garden of an amateur who knows little how to deal with this subject. The reader will observe that there are numerous growths, far too many for the plant to develop satisfactorily. Not only are the new shoots numerous, but they are poor and weakly, and fail to give any indication of promise for another year. The beginner should remember that these unduly numerous shoots are all drawing on the resources of the soil and robbing the fruit-bearing canes of the vigorous flow of sap which they need to develop their fruits satisfactorily. This overcrowding of young growths is indeed very detrimental to the best interests of the plants, and should be remedied at the earliest possible moment. All weak and useless growths should be removed at this period. Retain on plants grown on trellises any number between three and five growths, varying the number according to the strength and character of the canes. When the plants are grown in individual clumps, retain some five to six stout canes, this number being quite sufficient for a strong plant. Fig. 2 shows a plant where weak and superfluous growths have been removed, and where a few strong canes have been retained for next year's fruiting. Under no circumstances cut out any growths that are now about to bear fruits; it is only the weakly and crowded growths of recent development that should be removed.

D. B. CRANE.



1.—WHERE THE CANES ARE OVERCROWDED THE WEAKEST SHOULD BE CUT AWAY.



2.—A RASPBERRY PLANT AFTER THE PROCESS OF THINNING.

WINDOW PLANTS.

AT this season, when plants are being sold at cheap rates by hawkers and in markets, many people are induced to purchase plants for their gardens and windows for producing a summer display. Considerable experience is necessary if really good results are to be obtained with plants purchased in the open markets. Plants thus offered are sometimes good, and an experienced buyer often obtains splendid bargains; but the beginner is advised to obtain his plants direct from the nurseryman. Many plants when fresh purchased will require repotting

COLIN RUSE.

THE PARENTAGE OF ROSES.

(*Continued from page 266.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Fiammetta Nabonnand	Tea	Nabonnand	1894	Sport Papa Gontier
Filius Strassheim	P.P.	Strassheim	1893	Mignonette × Mme. d'Aoust
Firminiot Huet	H.T.	Soupert	1909	American Beauty × Richmond
Fisher Holmes	H.P.	E. Verdier	1865	General Jacqueminot race
Florence Tron	Tea	Nabonnand	1905	Albert Stopford × M. Tillier
Flower of Fairfield	M.S.	Schultheis	1908	Sport Crimson Rambler
F. L. Segers	Tea	Ketten	1898	Safrano × Adams
Flush o' Dawn	H.T.	Walsh	1902	Margaret Dickson × Sombreuil
Fragezeichen	H.W.	Bottner	1910	Dorothy Perkins × Marie Baumann
France et Russie	H.T.	B.-Pigné	1899	Seedling La France
Francis	H.W.	Barbier	1907	R. wichuraiana rubra × Crimson Rambler
Francois Foucard	H.W.	Barbier	1901	R. wichuraiana × L'Ideal
,, Guillot	H.W.	Barbier	1905	R. wichuraiana × Laurette Messimy
,, Juranville	H.W.	Barbier	1906	R. wichuraiana × Laurette Messimy
,, Poisson	H.W.	Barbier	1904	R. wichuraiana × William A. Richardson
,, I.	H.P.	—	—	Seedling Eugène Fürst
Franz Deegen	H.T.	Hinner	1900	Sport Kaiserin Augusta Victoria
,, Pohls	H.T.	Jacob	1908	Caroline Testout × Grüss an Sangerhausen
Frau Albert Fischer	W.	Weigand	1906	Chance seedling R. wichuraiana
,, ,, Hochstrausse	H.W.	Weigand	1908	Chance seedling R. wichuraiana
,, Alfred Mauthnier	H.T.	Lambert	1907	Erzherozin M. Dorothea × Baroness Rothschild
,, Alex. Weiss	P.P.	Lambert	1910	Petite Leonie × R. lutea bicolor
,, Anna Hinner	H.T.	Hinner	1909	Seedling Kaiserin Augusta Victoria
,, ,, Pasquay	—	Welter	1909	Trier × Mme. N. Levavasseur
,, Burgemeister Kirschstein	H.T.	Jacobs	1907	Luciole × Mrs. W. J. Grant
,, Cecile Walter	P.P.	Lambert	1904	Aglaia × Kleiner Alfred
,, Dr. Thelka Schlegelmich	Tea	Welter	1901	Princesse de Sagan × Francis Dubreuil
,, Emma Sasse	H.T.	—	—	*See* Emma Sasse
,, Ernst Borsig	H.T.	Lambert	1907	Frau Syndica Roeloffs × Caroline Testout
,, ,, Fischer	H.T.	Plog and Hinner	1908	Caroline Testout × Perle des Jardins × Eugène Resal
,, F. Reiter	H.T.	Welter	1904	Augustine Guinoisseau × Viscountess Folkestone
,, G. Dr. Staub	H.T.	Lambert	1908	Mrs. W. J. Grant × Duke of Edinburgh
,, G. von Boch	Tea	Lambert	1898	Princesse A. de Monaco × Duchesse M. Salviatta
,, George van Simson	M.S.	Welter	1909	Hélène × Rosel Dach
,, Hans Drazil	H.T.	Welter	1908	Kaiserin Augusta Victoria × Mme. Abel Chatenay
,, Hélène Videnz	M.S.	Lambert	1905	*See* Hélène Videnz
,, Karl Druschki	H.T.	Lambert	1901	Merveille de Lyon × Caroline Testout
,, Lilla Rautenstrauch	H.T.	Lambert	1903	Caroline Testout × Goldquelle
,, Lina Strassheim	M.S.	Strassheim	1903	Seedling Caroline Testout
,, Marie Weinbach	W.	Weigand	1906	Chance seedling R. wichuraiana
,, Mimy Felberg	Tea	Welter	1907	*See* Mimy Felberg
,, Nicola Welter	H.T.	Jacobs	1908	Kaiserin Augusta Victoria × Sunset
,, Oberhöfgartner Singer	H.T.	Lambert	1908	Jules Margottin × Mme. Eugénie Boullet
,, ,, Schulze	P.P.	Lambert	1909	Euphrosyne × Mrs. W. J. Grant
,, Ottilie Luntzel	P.P.	Lambert	1909	Thalia × Mme. Eugénie Verdier
,, Otto Evertz	H.T.	Welter	1907	Kaiserin Augusta Victoria × seedling
,, Peter Lambert	H.T.	Welter	1902	Kaiserin Augusta Victoria × Caroline Testout × Abel Chatenay
,, Philip Geduldig	H.T.	Geduldig	1907	Caroline Testout × Eugène Resal
,, ,, Seismeyer	H.T.	Lambert	1908	Caroline Testout × Erzherozin M. Dorothea
,, Rose Benary	H.T.	Lambert	1908	Ferdinand Batel × Liberty
,, Syndica Roeloffs	Ch.	Lambert	1899	Vallée de Chamonix × Laurette Messimy
Fraulein Octavie Hesse	H.W.	Hesse	1909	R. wichuraiana × Kaiserin Augusta Victoria
Freifrau Ella von Wangenheim	Tea	Jacobs	1908	Seedling Kaiserin Augusta Victoria
Freiherr von Marschall	Tea	Lambert	1903	Princesse Alice de Monaco × Rose d'Evian
,, ,, Schilling	Tea	Jacobs	1905	Seedling Mme. René Gerard
Frere Marie Pierre	H.P.	Bernaix	1891	Seedling Baroness Rothschild
Frederich Harms	H.T.	Welter	1901	Sport Kaiserin Augusta Victoria
Friedrichsruh	H.T	Turke	1908	Princesse de Bearn × Francis Dubreuil
Fritz Reichsgraf von Hochberg	H.T.	Lambert	1905	Caroline Testout × Goldquelle
Fürst Bismarck	D.T.	Droegemuller	1888	Seedling Gloire de Dijon
Fürstine Bülow	Tea	Brauer	1908	Marie van Houtte × Paul Nabonnand
,, von Hohenzollern Infantin	Tea	Brauer	1898	Comtesse de Leusse × Marie van Houtte
Gabriel Tournier	H.P.	Levet	1876	Jules Margottin × Victor Verdier
Gabrielle Pierrette	H.T.	Guillot	1903	Seedling Caroline Testout
Garden Robinson	Tea	Nabonnand	1900	David Pradel × Souv. de T. Levet
Gardenia	H.T.	Soupert	1898	Comtesse Dusy × Helena Cambier
Garisenda	H.W.	Bonfiglioli	1911	R. wichuraiana × Souv. de la Malmaison
Gartenstadt Liegnitz	M.S.	Lambert	1910	Hélène Videnz × Dr. Andry
Geant des Batailles	H.P.	Nerard	1845	Seedling Rose des Rosamanes
Geheimrat Dr. Mittweg	M.S.	Lambard	1909	Mme. N. Levavasseur × Trier
General Appert	H.P	Schwartz	1884	Seedling Souv. de William Wood
,, Baron Berge	H.P.	Pernet p.	1891	General Jacqueminot race
,, Gallieni	Tea	Nabonnand	1899	Souv. de Thérèse Levet × Reine Emma des Pays-Bas
,, T. Peschkoff	H.T.	Ketten	1909	Mme. Ravary × Etoile de France
,, von Bothnia-Andrea	H.P.	Verschuren	1899	Seedling Victor Verdier
Georg Arends	H.T.	Fischer	1910	Frau Karl Druschki × La France
Georges Cain	H.Rug	Gravereaux	1908	Pierre Notting × R. rugosa
,, Laing Paul	H.T.	Soupert	1904	Caroline Testout × Fisher Holmes
,, Moreau	H.P.	M. Robert	1880	Sport Paul Neyron
,, Pernet	P.P.	P. Ducher	1887	Seedling Mignonette
,, Reimer	H.T.	Soupert	1909	Richmond × Etoile de France
,, Schwartz	Tea	V. Schwartz	1899	Kaiserin Augusta Victoria × Souv. de Mme. Levet
Gerbe Rose	H.W.	Fauque L.	1904	R. wichuraiana × Baroness Rothschild
Germaine Caillot	H.T.	P. Ducher	1887	Baroness Rothschild × Mme. Falcot
,, Chenault	H.T.	Guillot	1910	Killarney × Rosomane Gravereaux
,, Trochon	H.T.	P. Ducher	1893	Victor Verdier × Mme. Eugène Verdier
Gertrude	H.T.	A. Dickson	1903	Sport Countess of Caledon
Gilbert de Sartige	Tea	Mari	1904	Mme. Charles × Jules Finger
Gladys Harkness	H.T.	A. Dickson	1900	Seedling Caroline Testout
Globe Hip	H.Gal.	Lee	—	Seedling R. villosa
Gloire de Bourg la Reine	H.P.	Margottin	1879	General Jacqueminot race
,, ,, Chatillon	H.P.	Fontaine	1861	Sport Mme. Masson
,, ,, Chedane Guinoisseau	H.P.	Guin and Ched.	1908	Seedling Gloire de Ducher
,, ,, Deventer	Tea	Soupert	1896	Devoniensis × Distinction
,, ,, l'Exposition de Bruxelles	H.P.	Soupert	1890	Souv. de W. Wood × Lord Macaulay
,, ,, Libourne	Tea	Beauvillain	1887	Seedling Perle de Lyon

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

POPULAR TULIPS IN MY GARDEN.

(*Continued from page 255.*)

TWO kinds which appealed to so many on account of their graceful vase shape were alba elegans—the acme of refinement—pure white with a narrow wire edge of rose round each of the petals, and which, like a good child, keeps its place and never pushes itself forward like the naughty red in Picotee or Fashion, and, in consequence, to my way of thinking, spoils the flower; and Mrs. W. O. Wolseley, a remarkably good example of the maculata type, very hardy, a fast increaser, and of a rich crimson colour with a black and yellow base. I might have included it among those "not given to dying"; it is such a laster. I found it many years ago in several cottage gardens within a mile of my house, and, struck with its beauty and hardiness, I had some dealings with my neighbours who had it and acquired a nice little stock. Within the last two or three years I have disposed of various lots to the trade, and before long it is sure to figure in some of the retail lists. It has an additional recommendation in that it is quite excellent for cutting. It is always a question with me which is the best of the pink edgers among the Darwins. Their name is almost legion, and they all have a great family likeness. Edmee has been a decided favourite this season, not among those of a similar build and colouring, but among the Tulips as a whole. There is no doubt the type is a beautiful one, and no garden should be without an example. The point is, which is the best. I used to think Edmee; now I incline to either Calliope or Baron de la Tonnaye. They are slightly brighter in tone, and almost, if not quite, as large. For size and magnificence few plants excel a mass of the large Darwin, Professor Rowenhoff. It is very similar in colour to Mr. Farncombe Sanders, but the slightly pale edge to the petals seems to give a brightness which the better-known and more shapely flower lacks. Red is a favourite colour this Coronation year. I wonder if it is the great event that suggests it, and so we unconsciously adopt it. It is the King's year. Red is the Royal colour; therefore red appeals to us just now and we like things that are red. Flame, accordingly, is in high favour. There is a striking blend of orange and scarlet in the flower, which is deeply cup-shaped and of much substance. Scarlet Mammoth is a large dwarf-growing variety that makes a wonderful bright bit of colour when massed. I have this year a large bed on the lawn some 65 feet long by 4 feet broad, and the effect on the green carpet has astonished me, well as I have known it for many years. It is an intense bright glowing crimson, which is dazzling when the sun is shining. Why it is not more grown and known is a puzzle. The only thing that can be urged against it is that it does not come so uniformly level and even as such a kind as Artis; but to me this is no detriment, but a recommendation, as it takes away the inevitable stiffness that to some extent always accompanies beds of "earlies." King Harold, for a Tulip that can be purchased for 1s. 6d. per dozen, is grand; in fact, even among the very expensive varieties it has few equals and no superiors. It is of a deep rich crimson shade, with a dark blue base. Everyone is struck with it and asks its name. I can strongly recommend it as one of the most distinct and the very best of all Darwins.

Talking things over with my man, we have come to the conclusion that as far as the visitors to my garden are concerned, yellow Tulips, on the whole, were "off" this year. I have now a nice little patch of the glorious deep yellow W. T. Ware, but even this did not attract any particular attention

The two exceptions were Ellen Willmott and Leghorn Bonnet. The first is a tall, graceful-waisted or vase-shaped bloom of a pleasing shade of a pale straw yellow. Certainly it has never done better, and being at the very top of its form, it was only fitting that its effort should be recognised. The other is one of the most distinct varieties that we have. It really has a shape of its own. The outer and the inner segments alike stand up, and to me always look like flames of fire, only they are not red, but yellow. Another feature about it is that it is very much at its best when it has arrived at and passed middle age. It is then that the striking broad band of deep straw colour in the centre of each petal is seen to advantage, bordered on either side by a delicate shade of the palest primrose. I consider Leghorn Bonnet one of the very best, and one that should never be omitted from any collection.

The curious browny shades have a great attraction for many people. Of the paler tones, one variously called Biscuit Brown, Bronze Queen and Clio has had its name taken down many times this season. Mr. Moore had it for many years at Glasnevin, where a large bed entirely filled with it was one of the yearly sights of that splendidly-managed garden. As it reminds one of a nicely-baked biscuit, and as he did not know its proper name, he used to call it by this very appropriate designation. I think, however, that the proper name should be Clio. It is a big, fine flower. An additional recommendation is that it is a good variety for mild forcing in pots. Goudvinck is in its build and general habit very similar, but the yellow is altogether of a different shade. Rich yolk of egg yellow, with a suspicion of brown in it, describes the inner segments, while the outer are much more of a yellowy brown. It is a rich, good-looking flower, and is seldom passed by without some flattering remark. Hammer Hales, so named from having been found in a parson's garden in Lincolnshire, the aforesaid parson having been one of Cambridge's most famous hammer-throwers, is a long pointed bloom. The individual petals (segments I suppose I ought to say) in a well-grown specimen will measure nearly 5 inches from base to tip. It has a good deal of red in the composition of its yellow and brown. It might almost be described as a browny orange red.

An early flower of a striking cherry rose is Cassandra. It always looks so bright and clean with its nice white base and its shapely pointed petals. I think a good bed of this on a well-kept lawn would be very effective. It is certainly an uncommon colour. A Tulip which I have always liked is Kate Connor. It has magnificent foliage, and on this account alone would be noticed even if the blooms were not of such a pretty shade of pink. It so happens that side by side with it I have a very pretty Darwin, Queen of Roses, growing. Those who admire the one generally admire the other. The three inside petals of the Darwin are of much the same shade of pink as Kate Connor, while the three outer are more of a deep rose. It is my first year of growing Suzon, and I hope it will not be my last. Everyone seemed to go for it. It was very distinct with the deep lilac rose of its outer petals and the flesh colour of the rest of the flower, forming a delightful contrast. Moreover, it is tall enough to be important-looking, and this all helps to gain it enthusiastic admirers.

I always have been exceedingly fond of Ada (or Albion), and call it a flower to put on the floor, where it can be looked down into. It is then that the pure white centre and the delicate pale purple halo all round it are seen to advantage. In a mass it just looks white. We have not too many real pinks either among the Darwins or Cottage; hence I am glad to be able to say that the rather new Flamingo was among the special favourites of the visitor. It is a very long flower and of a pale pink colour. These pale pink and pale mauve shades have been singled out very often. There is no doubt they appeal to many, and no one should omit some of each when they are making up their collection. Panorama has elicited as many encomiums as any flower in the garden. It is a large handsome globular flower, rich orange red.

I expect everyone who has grown Tulips for the last year or two has found that a great many individuals in ever so many varieties have become striped, or, to use Tulip language, that they have become "broken." What to do with these has very likely been a problem that has exercised the mind of more than one. I never quite knew what was best to be done with them myself, until last year I made up my mind to carefully mark all the best, and at taking-up-time I collected them all together. These were planted in one long bed, and they have flowered, mixed up anyhow, with the happiest results. Visitors who have passed batches of the best striped kinds, such as Dainty Maid, Admiral Kingsbergen, Emperor Alexander, Goldmine, Cherbourg and even the, to me, unapproachable Zomerschoon, with no other remark than that they never care for the striped ones, when they have come upon this bed of odds and ends have been, as it were in spite of themselves, obliged to eat their own words and own that there was something to be said for them after all.

JOSEPH JACOB.

THE EDITOR'S TABLE.

IRIS TINGITANA FROM EAST DEVON.

Dr. Padbury, Coombefields, Axminster, East Devon, sends a flower of this beautiful Iris, together with photographs of the plants referred to in the following note. Unfortunately, the photographs were not suitable for reproduction. Dr. Padbury writes: "Enclosed is a flower of Iris tingitana for your table. Mr. Irwin Lynch in his 'Book of the Iris' says tingitana is not worth growing. I hope this statement will be corrected. I am an Iris lover, and saw Mr. Fitzherbert's directions in THE GARDEN for July 16, 1910, so I thought I would try a few in this east corner of Devon. I planted them on November 14 and protected them with Bracken when required. The first bloom expanded on May 9, and I send you the last flower with photographs."

DOUBLE WELSH POPPIES FROM IRELAND.

Mr. John McWatters, The Mall, Armagh, sends a beautiful selection of double-flowered Welsh Poppies, these embracing a number of charming shades of yellow and orange. Mr. McWatters writes on May 25: "I enclose for your table a few blooms of my seedlings of the double or semi-double Welsh Poppies. Hundreds of plants are making a brilliant display in the garden just now, affording very showy masses of colour."

CLIANTHUS PUNICEUS AND CHOISYA TERNATA FROM SUSSEX.

Mr. Ernest Smith, The Gardens, Shagswell Manor, Etchingham, Sussex, sends excellent sprays of these two shrubs with the following note: "I am sending for your table a flowering branch of Clianthus puniceus, which is flowering here in the open. The plant is growing on a border close to a greenhouse, and was at one time trained to the wall; but owing to the attacks of red spider, it never flowered. Two years ago I unfastened it and have gradually pruned it into bush shape. It is now full of bloom, many of the flowering branches measuring 4 feet in length. By its side are growing fine plants of Choisya ternata, of which I send you a branch. Among other flowering shrubs that do well here is Pernettya mucronata."

SOLANUM CRISPUM AND FABIANA IMBRICATA FROM MIDDLESEX.

Mrs. M. I. Stafford, Waldeck, The Ridgeway, Enfield, sends sprays of these two interesting members of the Natural Order Solanaceæ with the following note: "I am sending some flower-sprays of Solanum crispum, which I have here growing in the open border against some evergreens. The plant was put in as a very small rooted cutting three years ago, and it is now 10 feet or 12 feet high, rambling over the evergreens into a variegated Maple. It is blooming profusely in spite of the upper parts having been exposed to the terribly cold wind we had last month. I have another plant on a west wall, which grows and flowers well. A spray of Fabiana imbricata is also enclosed. It is from a plant I have had growing near a south wall for the last seven or eight years. It has never had any protection. Our soil is a heavy loam, with clay subsoil—not ideal for tender plants."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Sweet Peas and wire (*A. H. P.*)—Sweet Peas have not the least objection to galvanised wire when once they are growing strongly; but it is desirable—not necessary, you understand—to take them up the first 2 feet on sticks. Even then you will probably have to put a ligature here and there to favour satisfactory progress. You can paint the wire with two coats of zinc paint, but it is improbable that you will gain material advantage.

Plants for moat bank (*E. A.*). — You may employ any of the Flag Irises, particularly I. germanica, I. Princess of Wales, I. Florentine, I. Mrs. Darwin, I. aurea and others, for the majority are well suited for banks of this kind. Narcissi for early flowering, Thrift, Snapdragons, Wallflowers, Corydalis lutea, Sedum spectabile, S. acre, S. albidum, Megasea cordifolia purpurea, Cerastium tomentosum, London Pride and the majority of the Euphorbias would do quite well. Of shrubs you might try the double and single flowered Gorse, any of the Brooms and Cytisuses, and Berberis Darwinii and B. stenophylla. Planted in good soil near the top of the bank, first pegged and subsequently allowed to run riot, the wichuraiana Roses are superb, and so, too, are the Traveller's Joy, Mountain and other Clematises. We have also happy memories of African Marigolds and Corn flowers giving sheets of colour, and of the Everlasting or perennial Pea in white and rose being quite at home in similar places or positions.

Primula (*H. W.*)—The Primula is P. Sieboldii grandiflora, and many varieties may be had from the hardy plant nurserymen, including blue, white, rose, carmine and others. The plant delights in rich loamy soils which are constantly moist, and at 4 inches high is but a starveling of what it should be. Given a suitable position, its flowers and leaves should be more than twice the size of those you send, the flower-stems reaching to fully 18 inches high. The species originally came from Japan, and the members of the tribe are quite hardy. Any of the seedsmen would supply you with seeds, though perhaps the better way would be to invest in a dozen or more plants, and from these save your own. The seeds should be sown at once in very sandy and fine soil, covering them not more than their own depth with the soil. Treated as we have suggested, the plant provides a picture of colour and beauty; while those who have a damp corner where rich soils obtain and not too much shade will find it of exceedingly great value.

Streptosolen as a bedding plant (*W. C. A.*).—In order to flower Streptosolen Jamesonii outside during the summer months, the plants should, during the winter, be treated much the same as a Fuchsia; that is to say, they should be kept fairly dry and quite safe from frost. They will thus pass the winter in a quiet state, and in spring, when growth recommences, they may be repotted. They will, after this, soon take possession of the new soil and grow away freely. Plants so treated will continue to flower throughout the summer months. Of course, they must be gradually hardened off before they are placed out of doors.

Pansies for spring bedding (*Meg*).—We are wondering whether you are really referring to the Pansy proper and the large Trimardian or giant Pansies of the fancy class in particular, or to the so-called bedding Viola or Tufted Pansy, as the cultivation of the two differs materially. Those first named should be raised from June or July sown seeds, transplanting the seedlings into prepared garden soil when ready, and finally placing them in the beds to flower. The Tufted Pansy is a much more perpetual-flowering plant, is smaller in flower, a true perennial and most desirable. The first-named group, of which there are endless varieties, would require to be raised each year from seeds.

Beds for plants (*Regular Reader*).—Were we planting beds with Heliotrope and Ivy-leaved Geraniums, we should be content with these as principals and peg them down to cover the bed. If you plant Antirrhinums above or among them, it will militate against their flowering, which by nature is both abundant and prolonged. We should certainly arrange for a self-coloured bed, edging it with Violas if you will. The soil sample is of medium quality only, and should have been stacked for a few months in a heap, adding short manure and bone-meal, or superphosphate of lime, in alternate layers at about 6 inches apart. For the Chrysanthemums the soil will require enriching, while for Tomatoes at the start it will do quite well. Not much sand will be required for either of these, the soil being too light and open in itself.

Daffodils failing to flower (*Worsted*). — We are not sure whether your Daffodils are flowerless or have formed buds and flower-stems and yet failed to develop flowers. If the growth is quite healthy and strong, it is possible the soil or the position is much too dry, and their flowering another year would therefore be a matter of uncertainty. If the foliage is brown-tipped and otherwise unhealthy, the bulbs are deteriorating or diseased, and should be given a change to moister soil. Their flowering next year depends upon the good growth made this season, and you can only now encourage a better growth by watering and the like. For the present, and until you are assured that the Nettles are entirely subdued, the bank might be planted, *i.e.*, sown with annuals, such as Marigolds, Tom Thumb Nasturtiums, Snapdragons, Poppies and Eschscholtzias, which would quickly produce a show of blossoms.

Violets in the open (*Miss E. B.*).—Just what you desire would satisfy the requirements of thousands who, in the winter months, wish to have hardy sweet-smelling flowers. The fact that the Violet will not do this in winter-time in the open, and in your North of London district in particular, has caused those who delight in such flowers to grow them in frames, with not unqualified success generally. With open-air culture pure and simple you would not get many flowers before March, and their coming then would depend upon the season, the shelter afforded and, not a little, the cultivation the plants had received. Of the two aspects you give, the south-west one would be the better, as successful Violet cultivation would be practically hopeless on a north-east border. You should plant at once vigorous young plants at 1 foot apart each way, the soil having been deeply dug and manured and, if heavy or retentive, given leaf-soil also. During summer the cultivation of the plants resolves itself into cutting away all runner growths as produced and keeping the ground free of weeds. In hot weather a light mulch of manure would be helpful, also waterings overhead in the evening. Having done this, you will have to wait for results. Some good varieties are La France, Princess of Wales, White Czar (single white) and Comte de Brazza (double white).

THE GREENHOUSE.

The cultivation of Amaryllis (*Mrs. R.*).—The treatment of Amaryllis, or Hippeastrums as they are now called, may be thus summed up. As the plants go out of bloom they may be repotted if they need it, but if the roots are in good condition annual repotting is not at all necessary. A suitable compost is good fibrous loam, lightened by an admixture of leaf-mould and sand. Plants that are not repotted should, while they are making their growth, be occasionally supplied with liquid manure. Whether yours need repotting or not must be left for you to determine, but in either case they should now be kept in the warmest part of the greenhouse, in order to encourage free growth. By midsummer, or even before, they may be shifted into an ordinary garden frame facing south. While the plants continue to grow, this frame may be shut up early, in order to conserve the heat of the sun and encourage growth in both leaf and bulb. As the leaves mature, the plants should have plenty of air and be fully exposed to the sun, as this results in firm, well-ripened bulbs and the consequent formation of flower-spikes. As the summer advances, some of the oldest leaves will begin to turn yellow, when the water supply must be gradually diminished, till, when the bulbs are quite dormant, it may be discontinued altogether. They must be taken into the greenhouse before the nights get cold. These bulbs may, if quite dry, be safely wintered in a structure where a minimum temperature of 45° to 50° is maintained. In early spring they should be given a little water and be kept somewhat warmer. As the plants grow, increase the water supply.

Rocheas (*S. F.*). — The Rocheas are small, shrubby greenhouse succulents from South Africa. The one best known is Rochea coccineum, which should be called Crassula coccinea. There are several other species.

Carnation Mrs. Burnett (*T. S.*). — Being of such a distinct and attractive shade of colour, it is a great pity that the variety Mrs. Burnett has proved in many gardens to be so liable to rust. Some, at least, of the cultivators that succeed with it speak of it as needing more stimulants than most of the varieties commonly grown. Good varieties approaching it in colour, though by no means of the same tint, are Coronation, Empire Day, R. F. Felton, Pink Delight and May Day.

Pelargoniums and Fuchsias (*Mrs. L. T.*).—Unfortunately, most of the petals of the Pelargoniums had dropped; but we have little doubt that the single flower is Ethel Lewis and the semi-double one H. M. Stanley. The injury to the Fuchsia leaves is caused by the sun shining brightly on them while they are still moist. This is particularly liable to happen during bright sunshine following a period of dull weather. At the same time, it may be pointed out that Fuchsias require only a greenhouse temperature, and a free circulation of air ensures firm growth and far less liability to injury than if they are kept warm. The leaves sent by you appear to be of a succulent nature, as if the plants had been kept rather too close.

A Pelargonium sport (*W. M.*).—The variety West Brighton Gem is naturally of a sportive character, and some popular varieties have emanated from it in this way. These sports once propagated, as a rule, retain their character, and there is no reason to anticipate that yours will return to the normal form. In its present colour it should be a very useful bedding variety. At the same time, we may point out that there is already a salmon-coloured sport from West Brighton Gem, which is grown by Messrs. Cannell and Sons of Swanley under the name of Lady Bess. Whether yours is the same shade of salmon we cannot say without actual comparison; but if you forward a specimen to the firm in question, they will be enabled to speak definitely on the matter.

Maidenhair Ferns unsatisfactory (*A Constant Reader*).—No exception can be taken to the compost in which your Ferns are potted; hence it will be necessary to look elsewhere for the cause of the trouble. In the first place, it would have been better if the plants had been divided before they had made so much growth; but that can hardly be the reason of their doing so badly now. The heat to which they are now subjected is certainly excessive, and is very probably the principal cause of their ill-health. A minimum temperature of 55°, rising to 70° or 80° with sun-heat, would be far more suitable for them. Another frequent cause of Maidenhair Ferns doing badly after division is that the soil is kept too wet; for if this is the case, many of the roots perish, and it is exceedingly difficult to restore them to health. In dividing these Ferns the better way is to use comparatively small pots at first, and when these are furnished with healthy roots to shift them into larger ones. We advise you to lessen the heat, as above suggested, and be very careful in watering. At the same time, you speak of the plants being in a good shaded house, and it is quite possible that the shading is carried to excess, for Ferns of this class do not need to be too heavily shaded.

Greenhouse plants (*T. S.*).—As far as can be judged by a poor leaf and not a word of description, No. 1 is the plant commonly known in gardens as Dracæna Bruantii, though its correct botanical name is Cordyline rubra Bruantii. It forms an upright-growing plant with recurving leaves, is of garden origin, needs to be potted in a mixture of loam, peat or leaf-mould and sand, and requires ordinary greenhouse treatment. If by a cold greenhouse you mean a structure in which no artificial heat is given, this Cordyline will not succeed therein during the winter, though it may be grown there throughout the summer. As the beauty of the plant depends greatly upon its symmetrical shape, it should, in a lean-to house, be turned round frequently, otherwise it will grow one-sided. No. 2 is Cordyline australis, a native of New Zealand, which in a state of Nature attains the dimensions of a tree. In a young state it is largely grown for decorative purposes, and needs the same treatment as No. 1, but it is somewhat hardier. Phyllocactus Ackermannii is a native of Mexico, and is one of the original species whence many of the garden varieties of Phyllocacti have been obtained. The colour of the flowers is rich crimson, of a somewhat lighter tint towards the margins. The minimum winter temperature of the structure in which it is grown must not be allowed to fall below 50°. The Cycas from China and Japan is in all probability Cycas revoluta, which is a native of, and largely grown in, those countries. It needs the same winter temperature as the Phyllocactus.

TREES AND SHRUBS.

Rhododendron cuttings (*E. F. S.*).—You cannot root cuttings of the stronger-growing kinds of Rhododendrons, but you may propagate them by means of layers or by grafting. Layers may be pegged down at once into sandy soil. They ought to be left undisturbed until the autumn of 1912, when some of the more vigorous ones may be examined. Should a goodly quantity of roots be found, the branches may be severed from the parent stem and be planted for a year in nursery borders. In the event of the roots being poor, leave the layers another year. Grafting must be done indoors during February or March. Stocks of R. ponticum or R. catawbiense may be selected in autumn and potted in small pots. Three weeks before they are to be worked they may be placed in the propagating-house, in order that growth may be accelerated and they may be somewhat in advance of the scions. Scions from vigorous plants should be selected, and the kind of graft known as saddle-graft used. Keep in a warm and close case until the union between stock and scion is complete; then gradually admit air, eventually placing in an open stage, and a few weeks later transferring to a cold frame. When thoroughly hard, plant in nursery borders. Remove the points of the shoots a few times during the first two years to induce a bushy habit.

ROSE GARDEN.

Pruning Hybrid Tea Roses in cold district (*Non*).—We think it a great mistake to prune the plants in autumn at all. You may thin out superfluous growths, especially those from the centre of plants, but do not cut back at all, unless it be long, straggling growths. The spring pruning could vary according to the variety. Sorts like Caroline Testout and Gustave Regis may have fully 12 inches to 15 inches of their last year's growths retained, whereas sorts like Marquise Litta should be cut back to 3 inches or 4 inches from their base. We would open out the plants of some sorts, such as Edu Meyer, to encourage lower eyes to break, rather than cut back very much. By opening out we mean to put pegs in the ground and tie the growths towards them a little by means of string attached to the shoots. As your Roses seem to be going back, we would advise replanting the beds next October. Have the soil deeply dug, and in replanting only save healthy plants. The first spring after replanting, the plants should be pruned hard, say, to within 4 inches to 6 inches of their base, afterwards pruning on the lines indicated above.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE HARDY FLOWERS OF JUNE.

RARELY, if ever, before has the June flower garden appeared in such resplendent beauty as now, or had crowded into its earlier days so great a wealth of blossoms. On every hand pictures of gaiety are revealed: flower vieing with flower, chasing each other in their eagerness to embrace the exceeding warmth of the time, and yielding a profusion of beauty to which we are by no means accustomed. Look where one will—on pergola, garden porch, in the hedgerow or field—the scene is one of indescribable charm, the more precious by reason of the subtle mingled scents of Rose, Woodbine and Pæony that float hither and thither on the evening air. Never before, indeed, do I recall the eager, tumultuous haste of the Pæony, whose wont it is to provide so prolonged and welcome a procession of its flowers. To-day, however, the genus has provided one great and glorious feast, and for the nonce Chinese and European kinds have run a sort of dead heat. That the presence of these twain is not unwelcome goes, I think, without saying; and, seeing that they come at a fitting moment, making special effort, as it were, to deck the Coronation month and year with their unequalled splendour, one cannot say them nay. Nor is it that our gardens have suffered, or are likely to suffer, by the unwonted display their combined efforts create, since the gap caused by the lateness of the coming of the earlier group was well filled by other things retarded by the colder days of spring, while there is a rich and well-filled larder with its store for the near future.

To-day, however, from the comparative standpoints of culture and flowering, these Pæonies are worthy of the attention of all whose interest is centred in gardening out of doors. For example, on the one hand the glory and flower wealth of the established specimens may be seen, while, on the other, the diminutive, enfeebled growth of those whose planting was much too long deferred. That there is more than a distant relationship between planting-time and good flowering few, I imagine, would be disposed to gainsay, or, if so, then the object-lessons of the garden the good or bad conduct marks of the plants, so to say—should surely not be given in vain. Yet to some it would appear useless to say that August and September are the best months of the year for planting the Pæony. It is, however, an indisputable fact based on the soundest of principles, the result of experience and the observations of years. Once established the Pæony has vitality and capacity to long endure, and it is earlier established, if reasonably and rationally regarded. But one must not expect a June flowering from a March or April planting of such things. The inexperienced one may expect, but not realise, a flowering following from even an August planting, for the Pæony is not quick to establish, but slow—and slower a hundred-fold when the planter, through lack of interest or appreciation, reduces to a minimum the energising and vitality-storing influences of leaf and root when these are made in due proportion in their season. The spring-planted specimen of Pæony may have its leaf tuft but 6 inches above ground in June—it is but the outward and visible sign of the wrong within—and the crown and root so enfeebled by this common error will tell the tale of the suffering endured far beyond the limits of the present year. To mark the error and benefit by its teaching are important items now, and not less so the taking notes of distinct varieties for planting later on.

That the Pæony is not alone just now in its sumptuous splendour those who garden with the Oriental Poppy can readily testify, and in the mind's eye a remarkable display of these flowers, mingling with the later appearing Golden Rods and the Starworts, and lightly shaded overhead by Apple trees, forms a picture any flower-lover might wish to portray. The great size of the Poppies undisturbed and largely uncared for is somewhat of a surprise, since they flower and fade away, their places being presently practically overwhelmed by the other things named. Still, for a score of years they have come, and as the signs of a diminished vitality are not yet, one may suggest their free planting in those half-garden, half-orchard sort of places where the more formal garden is as a thing unknown. Seen the other day from the open French window with the sun at midday filtering through the trees above, the picture was effective indeed, and, minus the greater blaze of colour of the same things in the garden, afforded a lesson of what to do in like circumstances. Pot plants of these Poppies may still be put out, and will be making headway for another year.

Then there are the coloured Marguerites or Pyrethrums, affording their sheaves of blossoms in a very wholesale sort of way, invaluable in the cut state and in the border, and certainly not least among the more important flowers of the month. These, like the Pæonies, delight in moisture-laden soils and rich food, and because of their high intrinsic beauty deserve well of the gardener.

But there still remains the inimitable beauty of the Irises—Flag, Spanish and others—with many quaint, beautiful or interesting species that constitute an apparently never-ending variety for weeks or months on end. In some instances the Orchid-like beauty and delicacy or transparency of petal of the flower are most fascinating, the more greatly enhanced, as one imagines, when the spikes, cut in early bud days, are permitted to expand their unblemished flowers within doors. It is, however, as garden flowers that we admire them most, and here they occupy a place apart. Still there are Lilies and Globe Flowers and Columbines unequalled in elegant grace and utility, all playing their part and adding lustre and flower wealth to the glory of a glorious June. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 20.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at 3 p.m. on "The Origin of Monocotyledons from Aquatic Dicotyledons," by the Rev. Professor G. Henslow, V.M.H.

The King's gardens at Windsor.—Next week being Coronation Week, we shall, by special permission, devote a considerable amount of space to a descriptive article of the Royal Gardens, Windsor. This will be fully illustrated by means of photographs taken specially for us on the 7th inst., and several hitherto unpublished features of these historic gardens will thus be included, together with a portrait of His Majesty's head-gardener. This number will also contain a coloured plate of the new Carnation Lady Alington. The price, as usual, will be one penny, and as we anticipate a heavy demand for it, we advise readers who require extra copies to order them in advance from their newsagents. Those who have gardening friends abroad should take the opportunity of sending them copies of this unique issue.

Rose show at the Crystal Palace. In connection with the Festival of Empire now being held at the Crystal Palace, a Rose show is to be held on the 29th inst. A large number of silver cups, as well as medals, are being offered for various exhibits, and the show promises to be a very good one, especially as the Roses this year are opening earlier than usual. Full particulars of this exhibition can be obtained from the secretary of the horticultural section, Mr. G. W. Henslow, Crystal Palace, Sydenham.

Spraying Potatoes.—The Board of Agriculture and Fisheries desire to draw the attention of Potato-growers to the importance of spraying their crops with Bordeaux mixture as a protection against Potato disease. In wet seasons spraying is of great value, while even in dry seasons, when no disease is apparent, the treatment is found to be beneficial, producing a longer period of growth and an increased yield. The crop should be sprayed twice, and the first spraying should take place as soon as there is a good development of haulm, towards the end of June or early in July, according to the locality and season. About three weeks later the treatment should be repeated. Full directions for making and applying Bordeaux mixture are given in Leaflet 23 (Potato Disease), copies of which may be obtained free on application to the Secretary, Board of Agriculture and Fisheries, Whitehall Place, London, S.W.

Experiments with Chinese Primulas. No. 2 of the "Journal of Genetics" contains a lengthy yet interesting account by Mr. R. P. Gregory, M.A., of experiments which have been conducted by him and Professor Bateson with Primula sinensis. The principal objects of these experiments, which have extended over several years, have been the inheritance of heterostylism and of colour, but many other interesting particulars have also been recorded. The Journal is published by the Cambridge University Press, Fetter Lane, London, price 10s. net.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Black spot in Roses. — The individual who would invent or discover a real cure for this Rose pest would confer a lasting boon upon growers. What is black spot, and is there a remedy? It was mentioned at the National Rose Society's conference, held recently, that someone had a cure but would not divulge it. Will not some of our chemical experts try to find out? For it is really as dangerous as, or more so than, the dreaded mildew. I believe it is possible to rid one's plants of it by frequently transplanting the bushes to other positions; but we cannot always do this, so that if a cure can be found, its publication would be very widely appreciated.—P.

Flowering of Cratægus Pyracantha Lelandii.—In a spring like that through which we have just passed, noted in this part of the country for its dryness and wind-storms, it is, perhaps, remarkable that perennial plants of any kind should be exceptional, either in point of growth or prolific flowering; but this has been the case with many roadside flowering plants, and remarkably so with Hawthorns. The common Hawthorn (Cratægus Oxyacantha), of which I have a well-grown tree in my garden, has been covered as with a sheet of pure white; and no sooner had the glory of this departed than its evergreen brother, Cratægus Pyracantha Lelandii, on the other side of the house, facing south, burst into full flower. This plant was about 18 inches high when I planted it in October, 1901, and it has succeeded so well that it now covers a space on the house wall 20 feet high and 9 feet wide. It would have gone much higher, but I have kept it down for fear of its injuring the guttering which runs round the house. It has been kept to one strong leading stem, throwing out lateral branches right and left at right angles with the stem. The result has been an undulating sheet of whiteness, like so many waves of snow, from a few inches from the ground to the topmost point. The plant has never shown such a wealth of flowers before, and if the berries ripen in proportion, there will be a great feast for the birds in the autumn, as the blaze of colour will probably attract many more visitants than usual, which in ordinary years manage to clear off the crop before the dark days set in. At the time of writing (June 6) the flowers are rapidly changing to the dying brown. It would be interesting to know whether the flowering of the Thorns has been remarkable this year.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

Early Peas and the heat.—We gathered Carter's Eight Weeks Pea on June 5 from seed sown outside. This is the earliest we have picked Peas from outdoor sowings. This Pea does well upon our stiff soil and crops magnificently. Following it quickly is Reading Wonder, which was ready two days later; this is also a fine Pea. Carter's Giant Lightning is next, and a very fine improved Pea it is, growing about 4 feet high. It is a mass of pods. Sutton's Excelsior is also ready, and is a very fine Pea for early work. Early Giant we are also picking. This fine Pea, together with Early Morn, take premier positions as early Peas, as they are only about four or five days behind the smaller-podded varieties, and for flavour and size quite surpass all the other early varieties. We have had no rain now for a month, have tropical heat varying from 75° to 84° in the shade, and have for some time had to resort to watering, as nearly all vegetation is in a state of collapse. All the late Broccoli came in as early as the forced, and were soon finished. Cauliflowers are turning in with lightning-like rapidity.—W. A. COOK, *The Gardens, Leonardslee, Sussex.*

United Horticultural Benefit and Provident Society *re* National Insurance Bill. — Legislation is now under consideration which very materially affects the above and other similar societies, and calls for special immediate attention. In the report of the committee for 1910 (issued with the balance-sheet), under the heading of "State Insurance" it says: "A keen watch has been kept on all statements and reports in the Press in regard to the tentative proposals of State Insurance against sickness, and the committee has been in communication with the Chancellor of the Exchequer twice on this matter. A report and balance-sheet for 1909 was also forwarded to the Chancellor with a request that the committee be kept informed of any developments." Judging by the Bill, the "communication" appears to have been fruitless, and the time for keeping "a keen watch," also waiting to "be kept informed" is past. The attention of members ought to be called to the unfavourable position of the society under the Bill, which, as at present drafted, is expressly excluded from the State benefits on account of a membership fewer than 10,000, although otherwise eligible. Established in 1865, the society has a contributory membership of 1,324, with an accumulated balance of £39,799, is solvent, and conforms to all the provisions of Section 18 of the Bill except membership limit. The benefits are in many respects more ample than those of the Government scheme. Gardeners as a class are under-paid, and to be called upon to contribute another 4d. per week towards a general insurance scheme is a serious item. Members of the United Horticultural Benefit and Provident Society are so widely distributed throughout the United Kingdom that it might have some effect if each wrote to his particular Parliamentary representative pointing out the hardship and asking him to support an amendment in committee on the Bill, so that this society may be dealt with at least as equitably as others eligible for State benefits.—MARK WEBSTER, *The Gardens, Kelsey Park, Beckenham.*

Leaf colour of Rhododendrons.—The excellent illustration of Rhododendron Rosa Mundi on page 224 leads me to draw attention to the bad colour one frequently notes in Rhododendron leaves, particularly where they are grown in small gardens under conditions none too favourable

for their success. The absence of the normal green colour in Rhododendron leaves is a positive sign of inadequate food supplies at the roots, and this may readily be corrected and always prevented by the infallible remedy of dressing the surface of the bed with fresh cow-manure. Personally, I favour an annual mulching of this material, applying it just as the flowers fade, as in the majority of instances the new growth follows in sequence to flowering. Cow-manure gathered fresh from a pasture and applied in liquid form, once at the beginning and again at the end of June, will soon bring Rhododendrons back to the normal colour, and also favourably influence the growths and flower production. Very old manure that is thoroughly rotted and crumbles readily when worked may be used in default of the above, and generally gives good results. This, it may be mentioned, forms an ideal material to incorporate with the soil at the time of planting, and if the soil basis is a good loam, the results will be in every way equal to the best Rhododendrons grown on peat.—THOMAS SMITH.

Cinerarias.—The coloured plate in THE GARDEN for May 27 of the charming blue-flowered form of the Feltham Beauty strain or section of Cinerarias should serve to call attention to one of the most beautiful types of the Cineraria that we have in cultivation. Anyone who has attended the meetings of the Royal Horticultural Society during the present season must have been fully impressed with the great decorative value of these Cinerarias. To one whose acquaintance with things horticultural extends over a lengthened period, it is also very interesting to note the great changes that have taken place in the popular taste, not only in the case of Cinerarias, but in many other classes of plants. At one time the only object aimed at in the raising of Cinerarias was the production of flowers as large as possible, with the florets overlapping, thus forming a flower of a circular outline. To this was added a dwarf, dense habit, so that a plant at its best presented a close mass of flower, a character which prevails to-day among those that are usually termed florists' varieties. The best of these forms were at that time named, and used to be propagated annually by means of cuttings. Forty years or so ago considerable attention was directed towards varieties with double blossoms, and named collections of them were frequently exhibited. For a time there was a considerable demand for these double-flowered forms, but they have now almost, if not quite, dropped out of cultivation; at all events, I have not met with any of them for a long time. These earlier forms of Cineraria were obtained by a process of gradual selection from Cineraria cruenta, a native of the Canary Islands. From the same locality other species were introduced, but it does not appear that these were employed by the hybridist till quite recent times. Now, however, the purplish lilac Cineraria multiflora can be traced in many of the later sorts, and so can the more shrubby-growing Cineraria Heritieri, which has played a part in the production of those varieties that seldom or never ripen seeds, but which must be increased by cuttings. A particularly attractive variety of this class is Lady Thiselton-Dyer, of which good examples may be had from 18 inches to 2 feet in height. The flowers of this are a little over 1 inch across, the florets being white at the base, tipped with bright blue. This variety has on the under sides of the leaves the whitish tomentum with a peculiar bluish shade, characteristic of the typical Cineraria Heritieri. Nowadays the varieties are so numerous and their parentage so involved that it is almost impossible to trace the original species in any of them.—H. P.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

THE LAYERING OF STRAWBERRIES. For very early forcing it is necessary to have the crowns well developed and matured by the end of autumn; therefore a batch of runners must be layered as soon as they are large enough for this purpose. Should it be considered necessary, the stock plants must be well watered before layering commences. Fill a quantity of 3-inch pots with good loam, which must be made fairly firm. Plunge the pots closely together between the rows; this will prevent the soil from becoming dry too quickly, and will be of much benefit to the plants when the roots are active. Select only the best runners, and retain only one crown on each runner. Secure the young plants on the surface of the soil by means of wooden pegs or pieces of raffia pressed firmly into the soil. Spray them with a rosed can morning and afternoon till they have become established in the pots. At this period they may be cut from the parent plants and removed to a shady position. Laxton's Noble and Royal Sovereign are both excellent for an early outdoor crop. The former ripens a day or two in advance of the latter. For forcing in pots Royal Sovereign is indispensable.

The Early Vinery.—As soon as the crop is cleared from the Vines, give the border a good watering. Should there be evidence of red spider or thrip on the foliage, give it a thorough syringing with a strong mixture of soft soap and sulphur. During hot weather syringe the foliage late in the afternoon with clear water.

Muscat Grapes.—The early Muscat Grapes which are colouring must be partially exposed to the sun in order to obtain well-finished bunches. Where the foliage of Muscat Vines is subject to scorching, it is advisable to syringe a little lime-wash on the glass. Air must be admitted with extreme care to prevent sudden fluctuations of the temperature. A little air should be left on the top ventilators all through the night.

Peaches.—The trees in the early house may be given similar treatment as advised for early Vines. When all the fruits have been gathered, all the old fruiting wood may be cut out, unless it is desired for extension. The young growths must be loosened from the trellis, so that they may be the better exposed to light and air. Fruits on later trees which are approaching maturity must be exposed to the light, but some varieties must receive slight protection from the fierce glare of the sun during the ripening process to prevent the fruits from being scalded. The fruits on the latest trees may now be thinned to the number required to furnish the crop. Young trees which are inclined to make gross wood should not be thinned too severely. There is nothing better than a heavy crop of fruits to check strong growth. Attend to the watering and feeding of trees which are in need of it. Old-established trees should be mulched with rich farmyard manure.

Outdoor Fruits.—As much summer pruning should be done as time will allow. The growths on Pears may be cut or pinched back to the fourth or fifth leaf. The leading shoots must be left to extend as desired. The superfluous growth on Sweet Cherries must be removed, so that light and air may ripen the fruit. Cover the trees with fish-netting, or birds will clear the whole crop before it is ripe.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

HARDY FRUIT.

WALL trees required for extension or for furnishing bare places should now be nailed or tied in, and the others pinched at about the fourth leaf, and later, when a second growth takes place, they may be pinched at the second leaf. This will allow sufficient sunlight to penetrate to all parts of the trees, and is better than allowing the shoots to grow unchecked till the month of July, when their removal necessitates the use of a knife or secateurs. Thinning the fruits should also receive careful attention as soon as it is seen that they are properly set, doing this at intervals until just enough are left. The crop should be regulated according to the size of the variety and the vigour of the tree. A medium quantity of fair-sized fruits should be preferred to a large number of smaller fruits. If green fly appears, syringe with Quassia extract and keep the roots well supplied with water during hot, dry weather. Fruit trees of every description, when carrying full crops of fruit, will be greatly benefited by liberal waterings of liquid manure from the farmyard, or, where this is not available a good substitute is found in superphosphate and sulphate of potash, which can be pricked in on the surface before watering. Mulching with farmyard manure, especially on light soils, is also of much value to the trees when swelling their fruit.

Strawberries will also need attention to protect the ripening fruits from birds, which quickly spoil the finest of the berries as soon as they begin to colour. Herring-nets, when of good quality, are the most economical means of protection, unless the proportions of the beds are unsuitable to the standard sizes in which these are usually sold, in which case it is as well to order from the manufacturer new nets of the correct size. There is no doubt that a suitable framework to keep the nets raised above the plants is the most effective and convenient protection. In the majority of cases the nets are simply laid on the top of the plants, and where there is a strong growth in the foliage it serves the purpose very well. Mice are sometimes very troublesome, and should be trapped as soon as noticed. The straw or litter ought to be put in position to protect the fruit from grit.

KITCHEN GARDEN.

Tomatoes.—These are seldom to be relied on as an outdoor crop in our Northern climate, except in the most favourable seasons; if, however, the plants are well advanced before being planted out on a warm, sunny border, or against a wall with a southern exposure, they may give a good return. Glass structures containing plants with ripening fruits should be kept freely ventilated and the atmosphere somewhat drier, but the plants should on no account suffer from lack of water. Give liquid manure at intervals. The fruits should be gathered as soon as they are coloured, as this lightens the burden of the plants, besides preventing the fruits becoming soft through over-ripening.

Cucumbers in pits and frames should be kept growing freely, and by timely attention to pinching and top-dressing maintain a constant supply of vigorous growth. The fruits should be removed from the plants as soon as they are ready to cut, and if not required for immediate use may be kept fresh for a considerable time if placed with their stems in water in a cool shed. Sow a few more seeds for successional crops. It is better to rely on young plants for a continuous supply than to endeavour to keep old plants in bearing after they show signs of exhaustion.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

NOTES FROM IRELAND.

THE weather experienced here during the spring has not been very good for the growth of the crops. During April very cold winds were experienced. The first half of the month was dry; afterwards we had heavy storms. Hail fell on several days, and considerable damage was done to the young foliage on the fruit trees. Apples are covered with blossom, but some of the individual flowers are small and ill formed, probably owing to insufficient sunshine during the summer and autumn of 1910. Pears suffered much during the recent gales, and I am doubtful whether they will be a success here. They require more sunshine. Morello Cherries are looking well.



GENTIANA VERNA AS A MORAINE PLANT.

The climate should suit them, and by the appearance of the trees the soil (a retentive loam, with sandy subsoil) is also suitable. Plums are not at present satisfactory; trees on the walls have practically no fruit upon them. Black Currants showed a splendid lot of blossom. Unfortunately, a severe storm did much damage to both foliage and blossom, and at the time of writing it is difficult to estimate the result. Royal Sovereign Strawberry is looking fairly promising. Strawberries would, I think, be a success here on well-cultivated, warm borders.

Seeds of some of the vegetable crops did not germinate well. Onions and Parsnips which were sown early suffered owing to the prolonged cold and wet weather which followed. Potatoes planted about the middle of February are looking well. This refers to tubers which were started in boxes, and also to others planted as received from the seedsman. Generally speaking, the crops are not quite so forward (with the exception of Potatoes) here as they would be in the Midland Counties of England at this date. Although we experienced no severe frost, the cold winds and the wet state of the ground, with but little sunshine, have not been favourable for the growth of vegetable crops.

Olearias and Veronicas grow and flower well. Bushes of Coronilla glauca have flowered freely during the winter. Unfortunately, two of the plants were much damaged by a gale. Although the branches were secured to stakes, the force of the wind was so violent that several of the largest branches were snapped off at their base. We have not at present many Anemones planted, but, judging by the health and vigour of the few plants, they might be grown with great success. Narcissi flowered early, and the flowers were good. A group of the Munstead strain of Polyanthus commenced flowering in February, and for a long while were a mass of bloom. Violets flowered freely in the open during February and March.

Several varieties of Lilium in the borders are looking strong, and give promise of a good show of flowers. When planting Lilies and, in fact, all tuberous and bulbous plants, it has been the practice to place sand from the beach in the holes. The results prove the practice to be correct. I have seldom seen Geums as strong as the plants are here. Occasional flowers have been produced on these plants throughout the winter. We are preparing new borders and beds. The work is very laborious, as in some cases several feet of solid rock has to be removed and soil carted from a distance. A number of climbing Roses have been planted on walls, and it will be interesting to watch their progress, as Roses are a recent introduction to the island.

Lambay Island. COLIN RUSE.

THE KITCHEN GARDEN.

HOW TO GROW STURDY BRUSSELS SPROUTS.

IT is not at all an uncommon sight to see rows of tall Brussels Sprouts lanky of stem and leaning over at various angles by the time midwinter comes. Such very tall plants are rarely profitable. There are several causes for this condition of the plants at midwinter, namely, neglect to transplant once or twice before the final planting is done, planting in loose soil badly, too close together, and neglect to earth-up the plants where the latter are grown in a naturally light rooting medium. The ideal Brussels Sprout plant should form a pyramid of sprouts on a strong, straight stem. Having had considerable experience in the cultivation of these plants in both sandy and clayey soils, I found that it was by giving close attention to the points enumerated that I could hope to grow first-class produce. When I have neglected to carry out some of the necessary work, my plants were not satisfactory.

At the present time the soil in which the plants are to be finally put must be well prepared. I am a firm believer in planting in deeply-dug, well-enriched soil; if light, made very firm by treading; if clayey, not firmed at all, as in due course such soil will settle down firmly enough naturally. The plants may be put out in ground which has been previously cropped with Potatoes. One of the main points is to secure a free growth of a stocky plant right from the beginning. The basal leaves must be large and stand out well all round the stem. They will, in due course, perish; but their great bulk in the first instance means extra large, firm Sprouts right down to the soil. Such will not form on plants which have been neglected while in a young state and have lost their lower leaves very early. Practically all take up the same space, but the well-grown specimen yields as many Sprouts as three of the badly-grown ones.

There is no gain by planting closely. The plants should be 18 inches apart in rows 2 feet asunder; then there will be sufficient space for all to attain full development. Before lifting the plants from their nursery beds the soil must be thoroughly soaked with water. Lift the plants with the aid of a hand or garden fork, and use a trowel for the planting. If inexperienced cultivators follow these instructions, they will grow fine Brussels Sprouts. B.

PLANTING CUCUMBERS FOR SUMMER CROPS.

WHERE possible, in low houses as well as in frames, a nice hot-bed should be made and covered with the prepared compost to a depth of 9 inches. This soil should be light fibrous loam and leaf-soil well mixed. A little more soil must be placed where the plants are to be put out, so as to raise them a few inches above the surrounding soil. Allow a distance of 3 feet between the plants. Stop the leading shoot when it has grown 30 inches long, and thus induce side shoots to grow. The latter must be stopped regularly one joint beyond the show of young fruits, and in this way a continuous crop will be secured for a period of eight weeks or so. Directly the roots show on the surface of the bed, put on a rich top-dressing of loam, leaf-soil and manure in a lumpy state, and repeat the top-dressing every three weeks or so. Approved artificials and clear soot and manure water may be given with advantage frequently. Where there is good drainage of soil, Cucumbers like plenty of clear water and stimulating foods. As soon as the fruits are large enough they should be cut, as it is unwise to leave them on the plants too long a time.

In one of the Northern Counties an amateur gardener was so successful in the cultivation of Cucumbers in a low span-roofed greenhouse that his reputation spread rapidly. Many persons came long journeys to see his crops of Cucumbers. I also visited him. This was many years ago. His greenhouse had low sides and a rather steep roof. He built up two beds, one on each side, facing the beds with whole turves in which the grass had died. The hot-beds were made inside the turf walls, and the Cucumber plants were trained to a wire trellis under the roof. When I made my visit the whole of the roof was hidden by the healthy foliage of the plants, and the hundreds of fruits of different sizes made a great impression on others as well as myself. This noted grower was content with one mighty crop during the best months of the year. G. GARNER

NOTES ON VEGETABLES.

HOEING.—Notwithstanding the repeated statements of the peculiar advantages which accrue upon incessant surface cultivation with the hoe, there still remain sceptics who regard scratching the surface as waste of time. They are utterly wrong, and the sooner they can be made to admit it the finer their crops of all kinds of vegetables will be. It not only admits food to the soil, but keeps it there. The loose, open surface favours the quick admission of rain, which will be followed by the health-giving fresh air, while the dusty condition created prevents the escape of food-laden moisture by the constant evaporation.

OUTDOOR TOMATOES.—In favoured gardens these will now be almost established in their permanent positions, but in colder places where the conditions are less suitable to the crop the plants will be standing out of frames ready for putting out, and the sooner it can be accomplished the better. The disadvantage of leaving them too long, even when they are in 5-inch or 6-inch pots, is that they become in some degree root-bound, and the consequence is a check when they are planted. The sites chosen must be deeply worked, but in fertile garden soil it is seldom either necessary or desirable to incorporate any fresh manure. This can be and, of course, is done; but the danger is that the plants will rush along to leaf, and it is not then easy to persuade them to attend to the more important matter of fruit production. Get the plant thoroughly established and well set with fruit and then commence judicious feeding. Just a reminder that either in pots or in the open ground Tomatoes derive immense benefit from the mixing in the soil of smother refuse and ashes.

BRUSSELS SPROUTS.—To ensure the finest results with this important autumn and winter vegetable it is imperative that it shall have a long season of growth, and to this end between now and the end of the month at least a goodly portion of the plants should go into their final quarters. The land must be in excellent condition both in respect of friability and available food, but excessive dressings of manure are not essential. Planting should always be done with a trowel or a hand-fork in preference to a dibber, since the roots can then be spread out in a little station instead of confined within the hard walls of a small hole. For the large varieties, to which amateurs still remain wonderfully partial, a distance of 3 feet in all directions should be allowed; but for the smaller growers that produce harder sprouts of superior quality, 30 inches between the rows and 24 inches from plant to plant in the lines will suffice.

SOWING TURNIPS. — These highly-appreciated vegetables are sown in succession from the earliest date that it is possible to get on the ground in the spring until late in the season for the winter crop. Now we have to consider those for autumn and early winter, and, precisely as with other sowings, they must be in splendidly-prepared soil or the results will not be entirely satisfactory. For sowing at this season the yellow-fleshed varieties are excellent, but it seems well-nigh impossible to remove the prejudice against them that prevails, and which arises from nothing other than the colour. To ensure the best roots the plants should never be allowed to stop growing from the time that they first show through the surface.

LONDON COLEWORTS.—For following the Cabbages in the autumn the London or Rosette Colewort is far more valuable than the majority of amateur and cottage gardeners appear to imagine, that is, if one may judge by the rarity of a good bed in their gardens. Sown between the beginning and middle of July, thinned according to necessity, and pricked out in beds at a distance of 12 inches in all directions, they turn in quickly. H. J.

THE FLOWER GARDEN.

SILENE ACAULIS AND GENTIANA VERNA AS MORAINE PLANTS.

THE moraine garden appears to be gaining favour with all who have tried it; and certainly it is astonishing how the rarer or more difficult alpines make themselves at home in it, and how very freely the plants blossom when so treated. Although the making of a moraine necessitates a little trouble and thought, how we are rewarded by these higher mountaineers when we give them such a congenial situation!

At first sight, the sharp grit composing the soil of the moraine, with an almost inappreciable amount of leafy humus mixed with it, appears to be the very last place to trust our most precious alpines in. However, it is not many months after planting that we find such plants as Silene acaulis, Campanula cenisia, C. Allionii, Viola calcarata, Saxifraga aizoides, S. oppositifolia, Ranunculus alpestris, R. glacialis, Dianthus alpinus and many other normally rather unsatisfactory plants making themselves very much at home indeed. The accompanying illustration of Silene acaulis depicts what charming cushions this delightful little plant will spread into in a few months, and how it covers



SILENE ACAULIS IN A MORAINE IN A GARDEN NEAR LONDON.

itself with its bright rose pink blossoms in May. I find that copious watering is advantageous, especially in the early part of the year, to counteract, to some extent, the effects of the dry winds which are so prevalent in our spring.

The three main factors to bear in mind in making a moraine are full exposure of the greater part of it to sunshine, ample water while the plants are making their growth, and the sharpest possible drainage. I have not yet come across a moraine plant which does not appreciate all the sun I can give it; and one must bear in mind that our very brightest sunshine falls considerably below the fierceness that one finds at an altitude of 7,000 feet to 8,000 feet in the mountains, and this is especially so near to London, as I am situated. Indeed, I believe that many alpine plants which one is recommended to plant in partial shade will flower much more freely if given full sunlight, accompanied by a copious water supply while their growth is being made. In this connection I may mention Primula farinosa and Soldanella alpina; while I am now obtaining much more flower from the Twin-flower (Linnea borealis) in my bog bed facing full south—but always moist—than ever I got when the plant was in shade.

All who have seen Gentiana verna, with its tough, little leaves, dazzling blue flowers with their brilliant white eye, spangling the grass on the mountain-sides, and even those who have only heard of this glorious spectacle, must be desirous of succeeding with this somewhat shy alpine. Like so many of these plants from high altitudes, it delights in ample moisture during its growing season (spring and early summer), but comparative dryness in winter. These are not very easy conditions to obtain in the ordinary garden, but with a little care one can approach fairly near to them. To meet this difficulty, some time ago I selected a spot well exposed to the sun, and constructed a miniature basin which would hold a quart or so of water, and on the lower side of this, and immediately next to it, I made up a bed of deep soil consisting principally of peat, leaf-mould and loam, with pieces of broken brick and some old mortar distributed throughout it. This broken brick, or, better still, limestone, I find most beneficial, and the roots of the plants find their way right into its interstices, where, doubtless, the conditions of moisture are more uniform than in the soil itself. Needless to say, underlying this soil was a layer of rubble, 4 inches thick, to act as drainage. In making the wall of the basin, I arranged for a small hole, a quarter of an inch in diameter, in the side of it, above the Gentian bed, and through this I passed a circular cotton lamp-wick, the hole, of course, being above the water-level in the

basin, that having an overflow slightly lower. It will be readily seen that, if the soil in the Gentian bed is nearly up to this little hole through which the wick protrudes, and the latter is put carefully down into the soil, capillary attraction will be constantly bringing water over in small quantities, thus securing the ever-present fresh moisture so necessary to the well-being of this little plant; while, when its growth is complete, the wick can be rapidly removed and the supply thus cut off. If necessary, a piece of glass can be placed a few inches above the plants during the wettest parts of our winter to keep off excessive moisture.

It is no great difficulty to fill up this tiny reservoir daily, or it can be so arranged as to be automatically fed by any little trickle which may be already decorating the rockery. With a little care it is quite easy to disguise the sides of the basin and give it a natural, rockery appearance, so that it is not in any way out of harmony with the surroundings, despite the very useful purpose which it serves.

Attention should be given to the plants from time to time during the winter, as frost is liable to lift them out of the ground, or at least to disturb them. One interesting point in connection with this plant (and one rarely found in any choice inmate of our garden) is that it seems to be disliked by slugs and other vermin. I cannot remember ever having found any of these visitors on it. Another good character this little gem has is that it blossoms comparatively freely, even so close to Town as here, and at a low altitude, too. How different to its relative, G. acaulis, which, with all my care, I cannot coax into flower, though it grows excellently and produces what ought to be blooms; but when they open the calyces are empty. What base ingratitude! However, no such disappointment awaits the enthusiastic grower of G. verna, possessing as it does the most intensely blue flower in the floral world.

Woodford, Essex. REGINALD A. MALBY.

THE ROCK GARDEN AT BROAD OAKS, BYFLEET.

THE accompanying illustration shows a portion of the rock garden at Broad Oaks, Byfleet, the seat of Geoffrey Lubbock, Esq. This somewhat extensive rock garden was originally laid out on a small scale some three or four years ago, and has been materially added to each winter since, until it now covers a considerable tract of ground. The work has been carried out by Mr. Lowe (the head-gardener) under the direct supervision of Mr. and Mrs. Lubbock, who are both deeply interested in this as well as many other phases of gardening. The plants have been well chosen, and the positions allotted them have suited their individual requirements, as is evidenced by the many beautiful clusters to be seen in bloom on every side. The principal plants in the illustration are Aubrietia Dr. Mules, Arenaria montana and double Arabis. Most of the families of rock plants are well represented, Phloxes, Saxifrages, Primulas, Aubrietias and Helianthemums just now making a good display. Lithospermum prostratum is also growing and blooming very freely, while Daphne Cneorum is represented by a large plant, which at the time of writing is covered with its bright rosy red flowers, which make quite a pleasing feature. Many other subjects in this garden are well worth mention, as everything both inside and out is well grown.

The illustration of the rock garden at Broad Oaks affords a splendid example of the utility and artistic effect of a flagstone walk. Such a walk as this, when bordered with old-fashioned flowers such as Arabis, Pinks, dwarf Campanulas and Saxifragas, presents quite an old-world appearance. Moreover, it is a naturally dry and well-drained pathway, enabling one to visit the rock garden even after heavy rains without the risk of getting wet feet. On a pathway such as this it is quite an easy matter to grow dwarf plants between the flagstones. T. STEVENSON.



VIEW IN THE ROCK GARDEN AT BROAD OAKS, BYFLEET.

THE ROSE GARDEN.

MOSS ROSES.

IT may safely be said that no garden is complete without its Moss Rose bush; but, strangely, one may go into scores of gardens and never find a single plant. Why is this? Is it because these Roses are not admired? I cannot think so, because numbers of people say to me in the course of the season, "How is it the Moss Rose is not grown now?" I am afraid the fault lies in our crazy desire to have only perpetual-flowering Roses in our gardens, and the ever-popular Hybrid Teas absorb our attention. But I would put in a plea for the Moss Rose, and would say, if you can only spare room for one sort, plant the old common pink variety or gracilis, which is a more abundant bloomer, although very similar in bloom. I always think the Rose season is truly ushered in when I see the flower-girls hawking bunches of the common pink Moss Rose in the streets. This variety is grown by the thousand around Feltham and other market gardening centres, and the plants are mostly on their own roots, obtained from layers or by root cuttings, which is far better than budding them on the Manetti stock.

Let any reader try a low hedge of the common pink Moss and he will be delighted with it, and by sparsely pruning the annual growths quite tall bushes may be obtained, especially if aided by a few Bamboo canes. Many individuals make a mistake in pruning Moss Roses too severely, that is, the annual growths. These I consider should be retained almost their entire length. Cut away old decrepit wood by all means and shorten the lateral growths, but leave the fine young growths of the previous year almost intact.

Moss Roses delight in good cultivation, as indeed do all Roses, and I maintain that if these old-fashioned Roses were more carefully cultivated, as they used to be in the fifties and sixties (because then they had little else to cultivate in the way of Roses), we should find them become popular again. If anyone has a border to spare by the side of a grass walk, or could make such a border in a paddock suitably fenced against cattle, he would find a collection of Moss Roses a delightful feature, and he could obtain fully three dozen varieties, including such good things as Blanche Moreau, White Bath, Little Gem, Comtesse de Murinais, Crested Moss, James Veitch, Lanei, Celina and Gloire des Mosseuses; and in this same border might be grouped the Provence Roses, from which the Moss Rose is said to have originated. Moss Roses look well on short standards, and they grow well in that form; they also succeed well as pot plants. Some years ago Mr. Hudson of Gunnersbury Gardens put up a fine lot at the Temple Show, and they were much admired. P.

ROSE LADY BATTERSEA.

WE are inundated each season with novelties, and many of them never survive the second year, but there are some Roses that seem to gain in favour annually. Such a one is Lady Battersea, which is one of the first to give us its elegant buds.

This year with me it flowered on May 29. What a lovely bud it is, the rich cherry crimson colour being a most pleasing tint. Messrs. William Paul and Son of Cheshunt are no doubt justly proud of being the raisers of such a beautiful variety, and it will be a long time before it is displaced. When the plants are well nourished there is a marked difference both in the colour and in the texture of the petals. Until recently I had only seen it upon maiden plants, but as a cut-back it is grand. I had the privilege to see a bed of it in the fine gardens of the late Lord Battersea at Overstrand some few years ago, and I thought then it was one of the best garden Roses. I am still of that opinion, although many novelties have appeared since. Of course, it has not the fulness of a Laurent Carle, but the exquisite long bud is difficult to surpass.

ROSA HUGONIS AND OTHER YELLOW SPECIES.

I HAVE before me as I write a lovely spray of that very beautiful species R. Hugonis. It is quite an early flowering species, as it is not at all unusual for it to produce its welcome flowers by about the middle of May. It is a variety every lover of this class of Rose should possess, and apart from its earliness in blooming, which makes it most valuable, the blooms are produced quite lavishly upon a very elegant dense-like bush. The flowers are, of course, quite single, there being the usual five petals, which are of a very clear pale Daffodil yellow on the edges, but the centre of the flower is a bright canary yellow. The flowers are about 1½ inches in diameter and inclined to cup shape. They have a delicious Dog Rose fragrance. The foliage resembles R. spinosissima. This species is said to resemble R. hemisphærica, which I do not know. R. Albertii is another distinct species in the way of R. Ecæ, but it is freer and better. R. Ecæ, the true variety, is very scarce. It is the yellow Abyssinian Rose. I believe the President of the National Rose Society has this plant growing well with him, and perhaps he can tell us a little of its history, for there seems some confusion as to the true species.

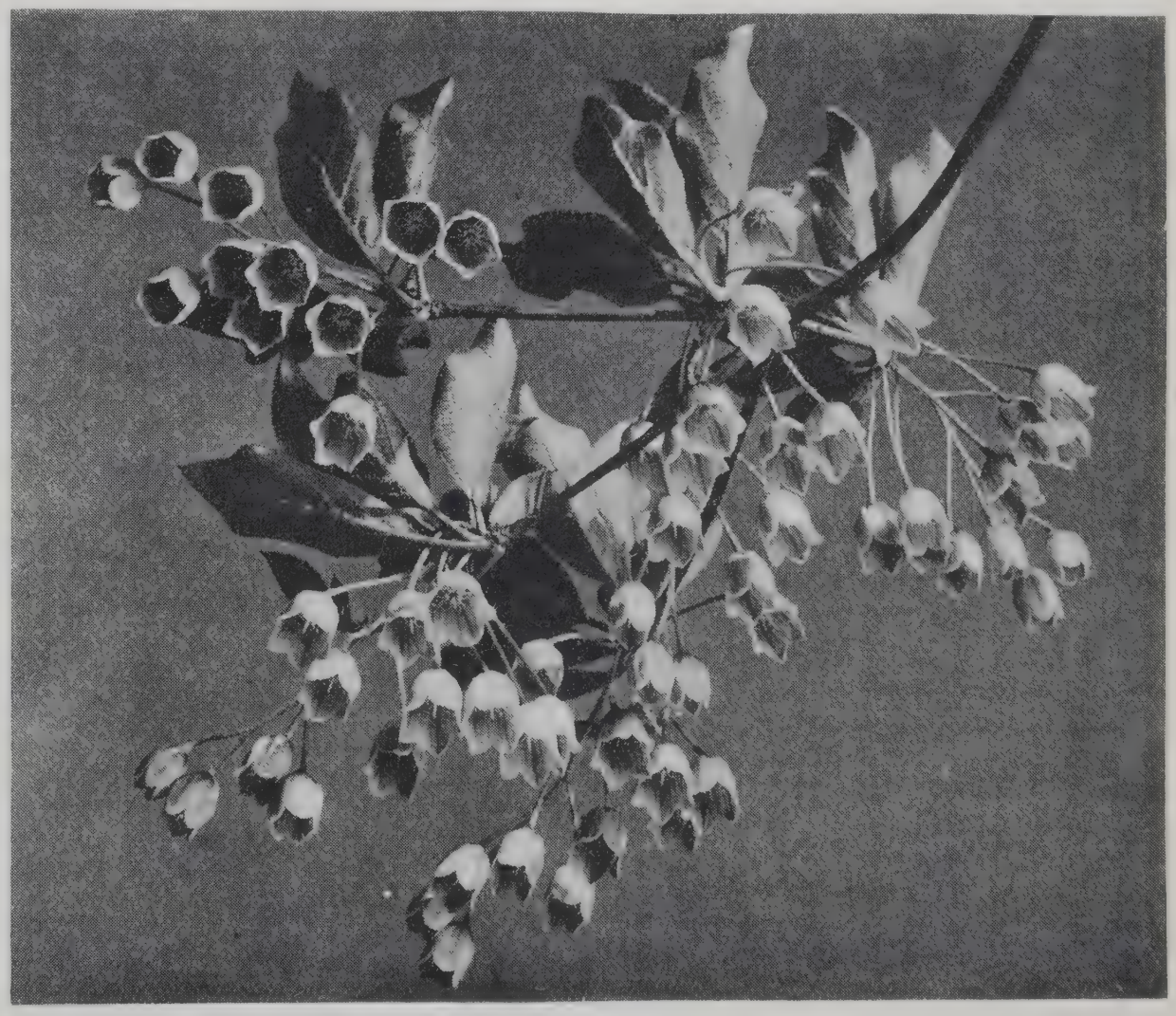
R. hispida is lovely. It is closely allied to the Scotch Roses, and has lovely long buds of a lemon white colour. R. hispida, it should be mentioned, is of garden origin, it is synonymous with R. lutescens. R. ochroleuca is also a free-blooming yellow-flowered kind. But perhaps the grandest colour of all is R. lutea, the yellow Austrian Rose. What a colour, almost as rich as Maréchal Niel! Surely these yellow species will soon be utilised by hybridists in giving us some very early-flowering hybrids. We know that M. Pernet-Ducher is using this tribe with marked success by crossing the Hybrid Teas with descendants of the original Soleil d'Or, a Rose which owes its origin to Persian Yellow, the double form of R. lutea; but cannot some of the hardy Briars and such-like be crossed with these yellow species? Even to get a good rich yellow, Penzance Briar would be worth having.

The Rev. J. Pemberton has a seedling which he has named Danae. It is an advance in the right direction, as I believe it is one of a series of autumn-flowering, strong-growing Roses which he has raised, taking, I surmise, the variety Trier as his base to work upon. All these efforts are laudable if they will but result in adding really distinct novelties, be they show blooms, garden Roses or shrub Roses; and I am sure those who have the leisure to patiently work on these lines will be rewarded with some most interesting results. P.

TREES AND SHRUBS.

ENKIANTHUS CAMPANULATUS.

REPRESENTATIVES of the interesting genus Enkianthus are by no means common in gardens. This is to be regretted, as several of the species are very ornamental, notably E. japonicus, with white flowers, and the subject of this note, with creamy-coloured blossoms striated with pink. The Enkianthus illustrated is a small deciduous shrub with us, but in its native habitat (Northern Japan) it is said to be a small tree some 30 feet in height. The leaves are produced in clusters or fascicles at the ends of the slender branches. From here also push out the drooping racemes of flowers, which are campanulate and about one-third of an inch in diameter. The flowering season is May. In addition to its value as a flowering plant, this Enkianthus is worth growing for its distinct and elegant foliage. Like most of the members of the Natural Order Ericaceæ, the Enkianthus thrive best in a well-drained bed of sandy loam, peat and leaf-mould. A. O.



A BEAUTIFUL HARDY SHRUB: ENKIANTHUS CAMPANULATUS.

MAGNOLIA PARVIFLORA.

THE specific name of this Magnolia has been unfortunately chosen, for the flowers are larger than those of one or two other hardy species, and can only be called small when compared with the blossoms of such species as M. macrophylla and M. Campbellii. Moreover, it is a very showy species, and never fails to attract attention, its white, cup-shaped flowers, which are 3 inches across, being set off finely by a central mass of rich red stamens. It is a native of Japan, and forms a bush 2 feet to 4 feet high, though it may become larger in some places. Its deciduous leaves are broadly oval and 4 inches to 5 inches long. Seeds are sometimes matured in this country, but seed production cannot be depended on, which may to some extent account for the comparative scarcity of the shrub. Like other Magnolias, it rejoices in rather light loamy soil containing peat, and is somewhat impatient of root disturbance. Whenever planted, it should be given a special position where it is not likely to be overcrowded by other shrubs, yet where a certain amount of shelter from cold winds is available. As a lawn specimen it is admirable, for then the flowers may be seen to advantage from every point. In addition to their attractive appearance, they are also desirable on account of their delicious fragrance. The species is closely related to M. Watsonii, from the same country, the chief difference being in the larger growth and larger leaves and flowers of the latter. D.

RIBES AMICTUM.

THIS is one of the few species of the Gooseberry section of the genus Ribes which are worth growing for their flowers. A Californian plant, resembling in general appearance a weak specimen of the common Gooseberry, it is found to be abundantly distinct from that species when in flower and fruit. The blossoms are usually borne singly from axillary buds, and are conspicuous by reason of the reddish brown calyx-lobes, which are reflexed on opening, but attain a more or less erect position as they wither. The white petals are considerably smaller than the sepals. Protruding beyond the petals are the five stamens with their purplish anthers, the whole going to form a curious combination of colours terminated with a pair of green stigmas. The fruit ripens about the end of July and presents a curious appearance, for the deep purple, globular berries are then thickly coated with strong spines. For lovers of interesting and curious plants this is certainly a species to obtain; but it is also interesting and showy enough for those people who grow shrubs simply for their

decorative worth. A front place in a shrubbery should be given, otherwise it may become overgrown by some stronger subject. D.

RHODODENDRON GLORY OF LITTLEWORTH.

THIS is a new and very beautiful Rhododendron having Azalea-like flowers. In gardens such a combination of qualities is termed an Azaleo-Rhododendron. It was one of the new plants at the Temple Show to receive an award of merit. As described in a recent issue of THE GARDEN, the flowers are of a cream colour, blotched with apricot.



THE NEW RHODODENDRON GLORY OF LITTLEWORTH.

THE GREENHOUSE.

NOTES ON ORCHIDS.

ODONTIODAS.

THE most popular genus of Orchids at the present time is undoubtedly the one mentioned above. It was created by hybridising Cochlioda and Odontoglossum, and the first to appear was Odontioda Vuylstekeæ, which caused such a sensation at the Temple Show in 1904, when it gained the Royal Horticultural Society's silver-gilt Lindley medal and a first-class certificate from the Orchid committee. The parentage is O. Pescatorei and C. noetzliana, and the hybrid retained the shape of the former to a great extent, but the bright orange scarlet colour of the latter played an important part, being the result of a combination of shades of rose and salmon red, with some cream colour on the lip. On that memorable day, May 31, 1904, some Orchid experts stated that it was "only a question of time that we should see a scarlet crispum," and in Odontioda St. Fuscien Imperator we have one fairly approaching this ideal.

Since 1904 many Odontiodas have been raised in different collections, and a selection of the best are as follows: O. Bradshawiæ, Charlesworthii, Goodsoniæ, Ernest Henry, Cooksoniæ, Diana and gattoniensis, while secondary crosses from O. Vuylstekeæ are appearing, such as King George V., Royal Gem, Sensation, and only this year Coronation was shown by Messrs. Vuylsteke, an illustration of this appearing on page 260 of THE GARDEN for June 3. These secondary crosses are at present very expensive, but the primary hybrids can be purchased for a very moderate sum, either flowered or unflowered. By choosing the latter there is a certain amount of pleasure in tending the plant to the flowering stage and watching the petals unfold, when perhaps a "plum" is revealed or only the ordinary type. The possibilities with Cochlioda noetzliana are indeed great, for in addition to the Odontiodas it has been mated with Miltonia and Oncidium, the progeny being known as Miltonioda and Oncidioda respectively.

Wherever Odontoglossum crispum is grown, there the charming group of Odontiodas may find a home; in fact, many of them seem to thrive and make good plants in a very short time. Like all Orchids, they need rational treatment and no coddling. I know that if they are repotted when the new growth is about 2 inches or 3 inches long and fresh roots are seen, no harm is done to the plants. The compost, which consists of Osmunda fibre, peat, Polypodium fibre and chopped sphagnum moss in equal parts, must always be in a sweet condition, or the roots soon decay and bad results will follow. The proper handling of the water-can has a lot to do with the keeping of the soil in that state which is conducive and not detrimental to root action. I advise amateurs, if there is any doubt as to whether a plant really requires watering, to allow it to wait till the following day, and any Orchid will benefit thereby. A moist atmosphere is necessary; ample ventilation during the warmer part of the year, providing no direct draughts pass over the plants, shading from all strong sunlight, a gentle spray overhead whenever the day is bright, freedom from insect pests and a general interest in the welfare of each plant will work wonders and enable the grower to keep his Orchids quite up to the average standard, while in some instances he may excel even the professional, who is among the first to recognise success and congratulate the beginner. SENTINEL.

THE TOWN GARDEN.

HARDY AZALEAS.—By hardy Azaleas is meant those sections of the race usually referred to as A. mollis, which, with A. sinensis and the numerous and beautiful varieties they embrace, go to make up the most sumptuous feast of colour-beauty and variety possible during the early summer months. Starting in mid-May, in a season like the present, the plants continue for at least a month, affording cloud-like pictures of colour impossible of description. I refer to these plants now as seasonable flowering subjects that my readers may take note and act for themselves at a later period of the year. In the shrubbery border or in beds in conjunction with Lilies there is nothing to equal them. Moreover, they are so absolutely hardy and enduring, and, again, so entirely suited to town gardens and smoky districts—as witness the brilliant display in the Azalea garden each year at Kew—that one might expect to find them in all gardens, large or small. The many pleasing colour harmonies in salmon, rose pink, orange, yellow, primrose and cream—art shades many of them in the truest sense—but demonstrate their great garden value, sufficient, indeed, to please the most fastidious of flower-lovers. Of these delightful plants more anon.

THINNING ANNUALS.—One of the greatest stumbling-blocks to the good cultivation of annuals is cheapness, and the seeds of most annuals are so cheap that the cheapness is as a species of plague. It is in this way: A threepenny packet of Mignonette, for example, may contain a few hundreds of seeds, and these not infrequently are turned out into a very small hole. The result of this is quickly seen in a thicket of seedlings, *à la* Mustard and Cress, struggling one against the other, to the death of a large number and the detriment of the whole. Too frequently the thinning of the seedlings is left too late, and in this department of gardening there is no work more important than early thinning. It would be less needful in hundreds of instances were the oft-repeated injunction to "sow thinly" more frequently adopted. Judging by appearances, very few of those who garden with annuals go in for fine flowers or plenty of them, the majority by their actions preferring small flowers and short-lived groups. Now the obvious outcome of thin seed-sowing is full plant development, and the product of this is an abundance of fine flowers. Early and timely thinning of the seedlings is the nearest possible equivalent to thin sowing, and one or other must be done if complete success is to be assured.

FRAGRANCE IN THE GARDEN.—With the bedding arrangements approaching completion there will of a surety be a number of plants left over that cannot be used in the ordinary way. For such as the sweet-scented Tobacco (Nicotiana affinis) there is room everywhere because of its fragrance, and a few plants may be dropped into positions in the shrubbery border, near the entrance door, or in near proximity to a French or bay window, anywhere indeed in late summer and autumn where its fragrance may be enjoyed.

HELIOTROPE.—No garden should be without plants of this fragrant and popular bedding subject. Apart from the attribute just named, its other good qualities are general freedom from insect pests and a free and profuse flowering which renders it well-nigh unique. The plant is capable of good effect alone, and if it is first pegged to the soil to compel it to perform useful service as a carpeter, it may presently be allowed to grow and flower at will. No bedding plant of my acquaintance is more prized for its fragrance. S. N. N.

GARDENING FOR BEGINNERS.

LAYERING STRAWBERRIES.

IT is astonishing how little is known respecting the requirements of the Strawberry in many gardens. Especially is this fact noticeable in the gardens of amateurs. Repeatedly one is told that the Strawberry is a surface-rooting plant, and on this account the soil in which this subject is planted need not be deeply dug and well manured. Such an idea is entirely erroneous. To the indifferent preparation of the soil must be attributed the frequent source of failure to grow the Strawberry satisfactorily. It is now time to commence layering if the best results are to be obtained. There is always a tendency to put off this work until a later period, but there is no advantage in delaying it. The object of layering Strawberries is to provide plants that will ensure, as far as possible, specimens that will fruit freely next season. I give here among my remarks regarding layering Strawberries some information respecting the soil for these plants, so that the beginner may have the quarters quite ready when the layers are nicely rooted and severed from the old plants. At this period, doubtless there are many readers who would like to make up a Strawberry-bed of their own planting, and if they are prepared to commence at once, there is no reason why the results should not exceed their expectations. Most old plants should now be evolving runners more or less freely, and it is the simplest matter imaginable to raise a batch of plants, provided just a little more than ordinary care be observed. So soon as the runners are sufficiently advanced they should be taken in hand and layered without delay. That the beginner may understand and appreciate what should be done, in Fig. 1 is shown a Strawberry plant from which there have emanated four runners, from each of which it would be a very simple matter to make an excellent plant. It is my rule to layer runners only from the plants which produce good individual fruits in large quantities. By this process of selection the quality of the fruits is easily and well maintained, and the results are always so much more satisfactory in consequence. Always avoid layering Strawberries from non-fruitful plants or from those that have been neglected and allowed to grow more or less wild. It is usually quite safe to take three or four runners from each plant. The young plant upon the runner should be examined before being layered, in case it may be blind. A good runner has a perfect centre of young leaves, whereas a blind layer has not a perfect centre. So soon as the runners are formed, fill a sufficient number of 3½-inch pots with a compost made up of three parts loam and one part well-rotted horse-manure, taking care to crock the pots before doing so. The pots should then be plunged in the soil round about the old Strawberry plant, and be adjusted quite level. The runners should be pegged down on the surface soil in the pots, or a stone may be placed on the stem of the runner to keep it in position until rooted. So soon as the runners are well rooted they should be severed, and a week later they may be lifted and the pots stood on a bed of ashes until they are wanted for planting in their permanent quarters or for potting up for fruiting under glass. Fig. 2 shows two runners adjusted in the small pots; these latter would be plunged in the ordinary course. Runners from young Strawberry plants should be rigorously removed.



1.—A FRUITFUL STRAWBERRY WITH FOUR VIGOROUS RUNNERS.

D. B. CRANE.

NAILING AND TYING UP YOUNG SHOOTS.

THERE will be plenty of this kind of work to be done during the summer months. In fact, shoots of fruit trees, Chrysanthemums and other kinds of plants grow so rapidly that it will be necessary to attend to the nailing or tying of some of them several times each week. It may seem an easy matter to many persons to tie up a shoot or branch of a plant. Very careful tying, however, is advisable; there are several points to note while doing the work. A young, growing shoot must have room for expansion. If the string or matting be made to press closely to the young bark, a bruise will result, and this sometimes, in the case of fruit trees, causes "gumming" later on, and the branch is then totally lost. Ample room must, therefore, be allowed for the due swelling of the young stem. There is another point. Always, where possible, pass the matting round the branch just below a joint, not above it. Probably after tying has been done the branch will grow many inches in length. If the tying material be passed above the joint, it may cause the stem to buckle, and, being young and brittle, it would most likely snap off. If rightly placed, the stem will continue to grow without check through the ligature and yet be held firmly in position. This hint refers very directly to Chrysanthemums and Carnations among flowers, and Cucumbers and Tomatoes among vegetables. In reference to fruit trees, such as Peaches, Nectarines, Plums, Apricots and Cherries, in addition to the careful tying suggested, there must be the proper disposition of the young shoots. The latter should be so arranged that air, light and sunshine will reach them, maturing both the wood and the buds. When once these simple principles are understood, the correct tying of the shoots of all kinds of plants will be a very easy matter.

SHAMROCK.

HOW TO GROW FINE SPINACH.

ONE large plant possessing big succulent leaves is worth three with leaves of medium size. Neglect in regard to the early thinning of the young plants and lack of moisture and nourishing food at the roots are the three main causes of unsatisfactory weak Spinach. When all these requirements are satisfied, the plants are fine; but how should the cultivator proceed when growing these plants in comparatively poor soil and without any previous experience? The soil must be deeply dug and plenty of well-rotted manure mixed with it. The seeds should be sown thinly in drills 1 inch deep and 24 inches apart. Thin out the resultant seedlings to 6 inches apart while they are quite small, *i.e.*, about 1 inch high. Later on apply a surface mulch of rich, half-rotted manure 2 inches deep and sufficient in quantity to cover the whole of the soil between the rows. Give water frequently if the soil is dry, and weak doses of liquid manure twice weekly, and every fortnight 1oz. of nitrate of soda dissolved in four gallons of water. A very fine crop of Spinach will result, and the surface dressing of manure can be dug in when the crop is cleared. The ground will then be in readiness for a crop of autumn Carrots.

AVON.



2.—TWO RUNNERS LAYERED IN 3½-INCH POTS.

THE PARENTAGE OF ROSES.

(*Continued from page 278.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Gloire de Margottin	H.P.	Margottin	1887	General Jacqueminot race
„ des Blanches	Tea	Vigneron	1904	Niphetos × Duchesse Mathilde
„ „ Polyanthas	P.P.	Guillot et f.	1887	Seedling Mignonette
„ Lyonnaise	H.T.	Guillot et f.	1884	Baroness Rothschild × Mme. Falcot × Mme. Falcot
Glory of Cheshunt	H.P.	G. Paul	1880	Seeding Charles Lefebvre
Goldelse	H.T.	Hinner	1901	Seedling Kaiserin Augusta Victoria
Golden Gate	Tea	Dingee	1891	Safrano × Cornelia Cook
„ Queen	N.	W. Paul	1903	Seedling Rêve d'Or
Goldfinch	M.S.	G. Paul	1907	Seedling Hélène
Goldquelle	H.T.	Lambert	1899	Kaiserin Augusta Victoria × Mme. Eugène Verdier
Gottfried Keller	H.Lut.	Muller	1902	Mme. Berard × Persian Yellow × Pierre Notting × Mme. Berard
Goubault	B.	Guillot p.	1859	Seedling Exposition de Londres
Graf Fitz Hochberg	H.T.	Lambert	1905	Caroline Testout × Goldquelle
„ „ Metternich	H.P.	Soupert	1896	Sultan of Zanzibar × Thomas Mills
„ Zeppelin	M.S.	Boehm	1910	Sport Non Plus Ultra
Grafin Ada Bredow	M.S.	Welter	1909	Thalia × Rosel Dach
„ Marie H. Chotek	M.S.	Lambert	1910	The Farquhar × Richmond
„ Stephanie Wedel	H.T.	Lambert	1909	Dr. Grill × Caroline Testout
Grand Duc A. de Luxembourg	H.T.	Soupert	1891	Triomphe de la Terre des Rose × Mme. de Loeben Sels
„ „ Herit. G. de Luxembourg	Tea	Soupert	1892	Catherine Mermet × General Schablikine
„ Duchesse A. de Luxembourg	Tea	Soupert	1892	Sylphide × Marie van Houtte
„ „ Anastasie	Tea	Nabonnand	1898	Baron de St. Triviers × Marie van Houtte
„ „ Herit. Hilda de Bade	Tea	Soupert	1892	Sylphide × Marie van Houtte
Gregoire Bordillon	H.P.	Standish	1863	Seedling Eugène Appert
Greta Frey	H.W.	Strassheim	1909	Seedling hybrid wichuraiana
Grossherrog Fred. von Baden	H.T.	Lambert	1908	Caroline Testout × Meta
Grossherrogin Alexandra	H.T.	Jacobs	1906	Merveille de Lyon × Kaiserin Augusta Victoria
„ E. von Hessen	M.S.	Strassheim	1907	R. multiflora × Crimson Rambler
„ Victoria Melita	H.T.	Lambert	1898	Safrano × Caroline Testout
„ von Weimar	H.T.	Kiese	1909	Frau Karl Druschki × Kaiserin Augusta Victoria
Grüss an Mme. Gladbach	Tea	Welter	1909	Kaiserin Augusta Victoria × Perle des Jardins or Sunset or Mme. Ravary
„ „ Zabern	M.S.	Lambert	1904	Euphrosyne × Mme. Ocker Ferenz
Gustav Grunerwald	H.T.	Lambert	1903	Grossherzogin V. Melita × R. lutea punicea
„ Sobry	H.T.	Welter	1901	Kaiserin Augusta Victoria × Comte Chandon
Gustave Piganeau	H.P.	P. Ducher	1889	Charlotte Corday × Baroness Rothschild
Gustel Mayer	P.P.	Lambert	1909	Rambler × Mme. P. Cochet × Dunkelrote Hermosa
G. von Tienhoven	H.P.	Lourens	1908	Victor Hugo × seedling (unnamed)
Hargita	H.Rug.	Kauffmann	1894	R. rugosa rubra × Perle de Lyon
Harrison Weir	H.P.	Turner	1878	Charles Lefebvre × Xavier Olibo
Hector Mackenzie	H.T.	Guillot	1907	Rosomane Gravereaux × Liberty
Heinrich Schultheis	H.P.	Bennett	1882	Mabel Morrison × E. Y Teas
Helen Good	Tea	G. and Reece	1907	Sport Maman Cochet
„ Gould	H.T.	Dingee	1902	Kaiserin Augusta Victoria × Caroline Testout
„ Paul	H.P.	Lacharme	1881	Seedling Victor Verdier
Hélène	M.S.	Lambert	1897	Hybrid Tea × Aglaia × Crimson Rambler
„ Croissandeau	H.P.	Vigneron	1882	Seedling Victor Verdier
„ Videnz	M.S.	Lambert	1905	Euphrosyne × Princesse Alice de Monaco × Louis Philippe
„ Wattinne	H.T.	Soupert	1909	Kaiserin Augusta Victoria × Le Progrès
„ Welter	H.T.	Welter	1903	Caroline Testout × Mrs. W. J. Grant × Mme. Jules Grolez
Helvetius	Gal.	Desprez	—	Damask × R. gallica
Henri Descours	H.T.	Gamon	1909	Mme. Eugène Boullet × Luciole
Henriette de Beauveau	D.T.	Lacharme	1887	Gloire de Dijon race
Henry Bennett	H.P.	Lacharme	1875	Seedling Charles Lefebvre
Herero Trotha	Tea	Lambert	1906	Aglaia × Marie van Houtte
Her Majesty	H.T.	Bennett	1885	Mabel Morrison × Canari
Hermann Coenemann	H.T.	Welter	1908	Caroline Testout race
„ Raue	H.T.	Lambert	1905	Grossherzogin V. Melita × La France de '89
Herrin von Lieser	H.T.	Lambert	1907	Frau Karl Druschki × Georges Schwartz
Herzog F. von Anhalt	H.T.	Welter	1907	Souv. du President Carnot × Mme. Jules Grolez
„ Carl Eduard	H.T.	Welter	1909	Seedling Caroline Testout × Farbenkönigin
Herzogin M. von Coburg-Gotha	Tea	Welter	1903	Mme. Carnot × Marie van Houtte
„ M. von Ratibor	Tea	Lambert	1908	Kaiserin Augusta Victoria × Dr. Grill
„ Victoria Adelaide	H.T.	Welter	1906	Mme. Jules Grolez × Kaiserin Augusta Victoria × Captain Hayward
Heterophylla	H.Rug.	Cochet C.	1896	R. rugosa × R. lutea
Hiawatha	M.S.	Walsh	1904	Seedling Crimson Rambler
Hildenbrandseck	H.Rug.	Lambert	1909	R. rugosa atropurpurea × Frau Karl Druschki
Hofgarten-Direktor Graebener	H.T.	Lambert	1889	Caroline Testout × Antoine Durieu
Homère	Tea	Rob. et Mor.	1858	Seedling Goubault or David Pradel
Honoré Defresné	Tea	C. Levet	1885	Seedling Mme. Falcot
Honourable Edith Gifford	Tea	Guillot p.	1882	Perle des Jardins × Mme. Falcot
Horace Vernet	H.P.	Guillot p.	1866	Seedling General Jacqueminot
Hugh Dickson	H.T.	H. Dickson	1904	Lord Bacon × Grüss an Teplitz
Iceberg	P.W.	G. Paul	1908	Jersey Beauty × Nellie Johnstone
Ideal (Becker's)	H.T.	Becker	1903	Sport La France
Impératrice Eugénie	H.P.	Oger	1850	Seedling Mme. Recamier
Irene	H.T.	W. Paul	1904	Caroline Testout × Mme. Jules Finger
„ Watts	Ch.T.	Guillot	1895	Seedling Laurette Messimy
Isabelle Gomel-Pujos	Tea	Ketten	1901	Seedling General Schablikine
„ Lejeune	H.T.	Ketten	1902	Marie Louise Poiret × Mme. Ravary
„ Milner	H.T.	W. Paul	1907	*See* Mrs. Isabelle Milner
„ Sprunt	Tea	Verschaffeldt	1866	Sport Safrano
Italia	H.T.	Berti	1905	Seedling La France de '89
Iwara	H.Rug.	Siebold	—	*See* R. rugosa Yvara
Jacques Vincent	H.T.	Soupert	1908	Mme. J. W. Budde × Souv. de C. Guillot
James Fergusson	H.T.	Fergusson	1910	Sport Caroline Testout
„ Sprunt	C.C.	Sprunt	1858	Sport Cramoisie Supérieure
Jean Guichard	H.W.	Barbier	1905	R. wichuraiana × Souv. de C. Guillot
„ Liabaud	H.P.	Liabaud	1875	Seedling Baron de Bonstettin
„ Pernet	Tea	Pernet p.	1867	Seedling Devoniensis
„ Soupert	H.P.	Lacharme	1875	Charles Lefebvre × Baron de Semur

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

NURSERY NOTES.

SPRING AND SUMMER CABBAGES AT READING.

CERTAINLY among vegetables Cabbages may not occupy a very high position, because they are so hardy and so easily grown. But while anyone may grow them, and if of the right sort as good may be seen on an allotment as in the best of gardens, it is not everyone who can or does happen to get the right varieties for their purpose. Thus there are particular ones which, if sown in the autumn and planted out in October, will every one produce perfect, early and solid, if small, hearts, that have the greatest value during April and May. On the other hand, there are many varieties that grow far too large and leafy, and do not give good hearts until June and even later. Obviously, it is the very early hearting ones which have by far the greater value, not only for sale, but for consumption. But then, still further, there are not a few otherwise capital summer Cabbages if sown in the spring which, if sown in the autumn, will so bolt to flower prematurely that they only produce grave disappointment. It is high time all seedsmen should put these diverse Cabbages into their respective sections, and thus prevent purchasers from securing the wrong ones when the right ones would give the fullest satisfaction. In a great trial of many varieties conducted by Messrs. Sutton and Sons at their seed farm, Reading, on ploughed ground from a sowing made of all of the sorts on August 10 last, and all planted out within two days, although in the aggregate running into some 10,000 plants, it has been clearly demonstrated, both from plantings and seedlings left in the seed-beds, that Market King, Earliest, Christmas Drumhead, Rosette and Hardy Green Coleworts, Summer Drumhead, Tender and True, Winningstadt, Early York, Couve Tronchuda, St. John's Day, Old Nonpareil, First of All, Little Pixie, All Heart and several others gave bolters varying from 30 per cent. to 100 per cent.; hence it is evident that all these are unfit generally for autumn sowing. Of large late leafy varieties, Enfield Market, Defiance, Maincrop, Nonsuch and several others, even though giving very few bolters, yet are not suited for very early cropping where small and precocious hearts are desired. But of these perfectly true and precocious stocks, out of the forty-three varieties grown and treated all alike, the firm's variety Harbinger stands out as at once most distinctive and most early. At Reading exactly the same characters seen in the trials of the National Vegetable Society last year and at the Royal Horticultural Society's gardens, Wisley, in April last were reproduced here, and every plant carried a very white, firm heart, while quite ten days to fourteen days in front of the well-known April variety, which, growing in quantity beside it, is less early and is of darker leafage, as it is also a little larger, but comes also remarkably true, neither variety having a bolter. It is indeed a great gain to all lovers of small very early Cabbages to have such varieties as these, which can be absolutely relied upon to come both true and very early. The popular Flower of Spring in a wide breadth follows naturally upon the others, being both rather larger and later. It seems as if in these three varieties everything in Cabbages that can be desired is supplied. Such remarkably good stocks have been secured only at great cost, by constant selection and extending over many years; indeed, the process goes on constantly, as seedsmen ever wish to go on improving. Ellam's Early shows a very good stock,

as also do Favourite, Imperial, Beaconsfield, Pioneer, Rainham and Offenham, but these generally are larger and later still. It is very obvious that a stock which can be fully trusted from a sowing at the same time and grown under precisely the same conditions to give solid hearts from four weeks to six weeks earlier than does the general run of varieties must be of infinite value, and, seeing that these small hearters can be planted so close together, no doubt the average weight of produce per rod is greater than can be obtained from large, later heads planted much wider apart.

NEW PLANTS.

HEUCHERA SANGUINEA NANCY PERRY.—A strikingly beautiful variety, obviously freely flowered and coloured rosy carmine and white. It is a most effective garden plant.

Iris variegata Miss Eardley.—The standards are of rich golden yellow, the falls heavily laden with crimson and distinctly bordered yellow. These came from Mr. Amos Perry, Enfield.

Grevillea robusta compacta.—The name is descriptive of a decidedly improved form of this well-known plant, for which we have nothing but praise. Exhibited by R. B. Leech, Esq., Dulwich.

Primula pulverulenta Hidcote strain.—Two excellent and well-flowered examples were shown, bearing pink and pinky white flowers respectively. The plants have all the primary characteristics of the typical species, and give promise of a colour variation approximating to P. japonica. Exhibited by Lawrence Johnston, Esq., Campden, Gloucestershire.

Crinum Johnstonii.—A remarkable umbel of flowers of this handsome species was shown by Sir Trevor Lawrence, Bart., Dorking. The globular flowers are white, flushed or slightly lined pink, a dozen or eighteen appearing at the head of a single stem. The flowers emit a powerful fragrance. The huge leaves remind one of some of the Asiatic species, being of a dark green colour, 6 inches or more broad and upwards of 3 feet in length, the margins being pronouncedly waved or undulated. Notwithstanding that the species is a native of British Central Africa, it has proved hardy in the open at Dorking; hence is worthy the attention of all lovers of choice plants.

Cattleya Mossiæ aureola.—A large-flowering variety of pleasing colour, but with rather flimsy drooping petals. The lip is of fine fimbriated form, of a lovely golden hue. The petals are soft pale pink. Shown by Sir Trevor Lawrence, Bart.

Oncidioda Cybele.—This is a bigeneric hybrid between Cochlioda noetzliana and Oncidium sarcodes. As might be expected from the parents, the flowers are small and freely produced. The colour is bright orange, and the small lip is chequered light and dark orange.

Each of the foregoing plants received an award of merit when shown before the Royal Horticultural Society on June 6.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting of the above society was held on Whit-Tuesday, and, as might be expected in the holiday season, the show was not nearly so well attended as usual.

FLORAL COMMITTEE.

Present: Messrs. W. Marshall and H. B. May (joint-chairmen), C. T. Druery, W. B. Cranfield, W. J. Bean, J. W. Barr, W. Howe, J. Jennings, J. F. McLeod, J. Dickson, R. W. Wallace, J. T. Bennett-Poe, C. E. Pearson, W. P. Thomson, E. H. Jenkins, C. Dixon and J. Green.

Messrs. R. H. Bath, Limited, Wisbech, had a glorious table of Pæonies, beautiful, fragrant and refined. The more imposing as well as the more beautiful were Solfaterre, primrose and cream; Lady L. Bramwell, rose; festiva maxima, white; Mme. Calot, less white than usual; Mme. de Vatry, pink guard petals with creamy centre; candidissima and Duchesse de Nemours, two of the oldest and still the most admired of a great race. Of the singles in the same group, albiflora carnea, with Dog Rose coloured guard petals and golden petaloids, and Philomele, rose and cream, were most charming. Inula glandulosa, Iris pallida dalmatica and single-flowered Pyrethrums were also shown.

Messrs. G. Bunyard and Co., Maidstone, had a particularly fine table of plants, the herbaceous Pæonies figuring prominently. Among the more conspicuous were Vanderbilt prolifera tricolor; albiflora Fascinator, white guard petals and golden centre; and alba superba. Pyrethrums, Day Lilies, Heucheras, a glorious lot of Oriental Poppies, Lilium Maximowiczi, and Irises were very fine. Hesperis Matronalis plena and its purple form were excellently shown, also Iris Snow Queen among many kinds.

Mr. Amos Perry, Hardy Plant Farms, Enfield, had a delightful table of Iris arranged above a groundwork of hardy Ferns, not in crowded, unseen bunches as too frequently displayed, but in that semi-isolation more suggestive of garden effect. The exhibit, indeed, assisted the visitor to a study of these things not usually afforded at an exhibition. Queen of May, Kathleen (gold crest), Beatrice (of the pallida group), Golden King, pallida Angelo (rose purple and gold crest) Albert Victor (very fine), the typical pallida of Reichenbach (quite a distinct and beautiful plant), spuria pallida, Mrs. Newbonnier (of the golden variegata set), and others to the number of 150 varieties were shown in a really fascinating group.

Messrs. J. Peed and Sons, West Norwood, S.E., sent a table of Gloxinias representative of an excellent strain in well-grown plants. The flowers were of large size and of a rather imposing character.

The Guildford Hardy Plant Nursery sent a table of cut herbaceous flowers, Heucheras, Delphiniums, Pyrethrums and Pæonies being prominent. Of the latter, P. albiflora, or Whitleyi plena, was very fine, the golden anthers telling finely against the white of the guard petals.

Messrs. T. S. Ware, Limited, Feltham, Middlesex, had a glorious display of Pæonies, Eremuri, Dictamnus and other hardy flowers. The alpine plant exhibit which accompanied the above included Dianthus neglectus and Onosma taurica, while hardy Cypripediums and Ferns were very beautiful.

Messrs. G. Mount and Sons, Canterbury, displayed a capital group of Roses, ramblers of many sorts being shown in profusion. The new Hybrid Tea Mrs. George Shawyer was also well displayed in vases and stands; while Lady Hillingdon, Richmond and the Lyon Rose were seen in abundance. White Killarney and Mrs. John Laing were also well shown.

Messrs. William Cutbush and Son, Highgate, N., displayed a very fine lot of Carnations of the perpetual-flowering class, Lady Coventry, Mikado, Alma Ward, Beacon, Frank Galsworthy, Mrs. Fortescue, Carola, Pink Delight and Marmion being among the best in a very delightful gathering.

Messrs. H. B. May and Sons, Edmonton, showed a table of Lobelia, Coleus, Hydrangea, Allamanda grandiflora and a choice lot of Heliotropes. Of the Lobelias, Blue Gem and Waverley were the more conspicuous.

Messrs. George Jackman and Sons, Woking, had a very showy group of hardy flowers, some excellent Pæonies predominating. Of these, Leonie (flesh pink and cream) was most charming, sufficient, indeed, to satisfy even a fastidious taste in such flowers. Poppies, Thalictrums, Irises, Columbines and Heucheras were all finely displayed, the richly-coloured sanguinea grandiflora of the last-named group being particularly showy.

Mr. Leopold de Rothschild, Gunnersbury (gardener, Mr. J. Hudson), showed a group of the scented Pelargoniums, of which Little Pet, Little Gem, Countess of Devon, Pretty Polly and Chiswick Beauty were the chief. All of these varieties are admirable for their leaf fragrance and flower beauty.

Messrs. Barr and Sons, Covent Garden, W.C., had a showy group of Irises, of which Dalmarius (fine blue), Duchess of Wellington, Perfection, Rhein Nixe, Black Prince and King of Iris were among the best.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, had a pretty group of Pyrethrums, Pæonies and Poppies.

Messrs. James Kelway and Sons, Langport, filled a full-length table with Pæonies and Pyrethrums, the former largely predominating. Of the single varieties of the Pæonies, Lady Helen Vincent (white, gold anthers), Cherry Ripe (rose, gold anthers) and Princess (pink, with golden petaloids) were most charming.

Messrs. G. and A. Clark, Limited, Dover, filled the table at the western end of the hall with Irises, Pyrethrums, Inulas, Geums, Poppies, Heucheras, Gaillardias and Larkspurs, a really sumptuous array of all that is best in the hardy flower world of early June. The beauty and effect of the arrangement might, we think, have been enhanced by the addition of a little more foliage.

Messrs. Carter Page and Co., London Wall, exhibited fine masses of Dahlias in Cactus and decorative varieties, also a rich display of Zonal Pelargoniums and many annuals.

The double St. Brigid Anemones were well shown by Messrs. Reamsbottom and Co., Geashill, King's County, Ireland.

Messrs. Whitelegg and Page, Chislehurst, Kent, had a good display of Poppies, Columbines, Pæonies, Heucheras and a nicely-arranged rockery exhibit, on which Saxifraga Cotyledon was remarkably well shown.

Mr. L. R. Russell, Richmond, showed a table of Primula obconica in blue, white and carmine

Mr. G. Reuthe, Keston, Kent, had a most interesting exhibit of alpines, perennials and shrubs, Saxifraga cæsia dolmitica, S. tyrolensis, S. squarrosa and S. cochlearis being noted in a fine lot. Lewisia Cotyledon was also well shown, as were Dianthus neglectus and many Campanulas. Mr. Reuthe also displayed a good lot of Irises and Pyrethrums and some pretty species of Orchis. Ramondias and Phyteuma comosa were also noted.

Mr. James Box, Lindfield, Sussex, had a glorious display of Poppies and Columbines, also Pyrethrums and the rich yellow, white and red shades of the double florists' Ranunculus.

Messrs. W. and J. Brown, Stamford, staged Heucheras, Gaillardias, Lilies and Dianthus Napoleon III. Gaillardia Lady Rolleston was particularly well shown.

Messrs. Dobbie and Co., Edinburgh, showed their excellent strain of Columbines in many delightful shades of colour, rose, red, scarlet with cream and these in combination being noted in a superb gathering of the flowers. Some good vases of Sweet Peas and other annuals were also shown.

Messrs. Cannell and Sons, Swanley, Kent, had a particularly fine group of Pelargoniums, chiefly of the fancy and Regal sorts, which they displayed in capital style.

Baker's, Wolverhampton, had a group of hardy things rich in Poppies, Irises and Lupines.

The Misses Hopkins, Shepperton-on-Thames, displayed Phlox Laphamii, with Incarvilleas, Campanulas, Dianthus neglectus, Hieraceum villosum and the like.

Mr. C. Blick, Hayes, Kent, had a lovely exhibit of Carnations, displaying his new set for 1912 to perfection. Of these we selected Skirmisher, Donald McDonald, Dauntless, Sydney Carton and Captain Scott, all of the yellow-ground fancy section. A superb lot of Lady Hermione was also shown, and there were many big vases of the perpetual-flowering sorts.

Messrs. Stuart Low and Co. staged handsome vases of Sunset, Duchess of Westminster, Baldwin and Princess Juliana Carnations among many others.

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, had many good Roses in a large and representative gathering, Paul Ledé, Gottfried Keller, Lady Waterlow and White Dorothy being among the more prominent sorts.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), and Sir Jeremiah Colman, Bart., Messrs. J. O'Brien, de B. Crawshay, W. Bolton, G. Wilson, W. H. White, C. H. Curtis, H. G. Alexander, J. Charlesworth, J. E. Shill, W. Cobb, T. Armstrong, W. McBean, F. J. Hanbury and F. Sander.

Messrs. Sander and Sons, St. Albans, were represented by a good display of Cattleyas, Lælio-Cattleyas and Brasso-Cattleyas. The singular-looking Masdevallia coriacea was included as well as Brassia verrucosa, B. lawrenceana longissima and a number of Bulbophyllums. Silver Flora medal.

Messrs. Armstrong and Brown, Tunbridge Wells, showed Odontoglossum crispum in fine form, also Renanthera imschootiana, Cœlogyne pandurata and a few late-flowering Cypripediums.

A group of Orchids containing Cattleyas, Phalænopsis and Odontoglossums, arranged over a groundwork of Maidenhair and other Ferns, was shown by S. Larkin, Esq., Haslemere (gardener, Mr. Hale). Silver Banksian medal.

Messrs. Hassall and Co., Southgate, N., had an attractive group of Cattleyas, including many good forms of C. Mossiæ in white and mauve colours. In most instances the varieties were not named. A white variety with golden yellow throat, C. M. Wagnerii, was particularly good. Silver Flora medal.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, staged a fine lot of Cattleya hybrids, remarkable for their good colour and freshness. A large plant of Lælia purpurata Lowiæ was shown and fine plants of L. p. Annie Louise and Lælio-Cattleya eximia. Silver Banksian medal.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, had an admirable collection, comprising Lælia purpurata Tackæ. Cattleya Mendelii, Odontioda Bradshawiæ, Epidendium vitellinum major, a number of Dendrobiums and many fine Oncidiums. Silver Flora medal.

A similar award was made to Messrs. A. and A. McBean, Cooksbridge, Sussex, for a beautiful group, comprising Miltonia vexillaria, Odontoglossums in variety, Lælia purpurata, Lælio-Cattleya Fascinator, Cochlioda noetzliana and many others.

Messrs. Charlesworth and Co., Hayward's Heath, had a capital display of Odontoglossums, Cattleyas, Miltonia vexillaria magnifica, Lælio-Cattleya luminosa, and Dendrobium Dearei. This fine exhibit was edged with free-flowering plants of Trichopilia backhousiana. Silver Flora medal.

A bronze Banksian medal was granted to de B. Crawshay, Esq., Sevenoaks, for a little group of very choice Odontoglossums and Odontiodas.

FRUIT AND VEGETABLE COMMITTEE.

Present: C. G. A. Nix, Esq. (chairman), and Messrs. A. Dean, J. Willard, W. Poupart, G. Wythes, J. Jaques, A. W. Metcalfe, H. S. Rivers, J. Davis and W. E. Humphreys.

A collection of Fig trees in pots was shown by Messrs. Stuart Low and Co., Bush Hill Park. The trees bore a plentiful supply of fruit. The varieties St. John's and White Marseilles were the two best.

A bronze Banksian medal was awarded to Miss Dixon, Chichester, for an exhibit of Melons. The variety Elmcroft Beauty was shown. It is an oranged-fleshed Melon of good shape, size, and well netted.

Melons were also shown by Messrs. Le Lacheur and Sherris, The Flower Farm, Henfield. Only one variety was shown, viz., Marchioness of Tweeddale, a white-fleshed variety of useful size. Bronze Banksian medal.

MEDALS

Silver Flora.—Mr. C. Blick, Hayes, for Carnations; Mr. Box, Lindfield, for hardy plants; Messrs. Bunyard,

Maidstone, for herbaceous plants; Messrs. G. and A. Clark, Dover, for Pyrethrums, &c.; Messrs. May, Upper Edmonton, for miscellaneous plants; Messrs. Mount, Canterbury, for Roses; Mr. Amos Perry, Enfield, for a collection of Irises; and Messrs. Bath, Wisbech, for Pæonies and herbaceous plants.

Silver Banksian.—Baker's, Codsall, for Poppies, Irises and Lupines; Messrs. Cannell, Swanley, for Pelargoniums; Messrs. B. R. Cant, Colchester, for Roses; Messrs. Cutbush, Highgate, for Carnations; Messrs. Dobbie, Edinburgh, for Aquilegias and Sweet Peas; Messrs. Kelway, Langport, for Pyrethrums, &c.; Messrs. Low, Enfield, for Carnations, &c.; Messrs. Peed, Norwood, for Gloxinias and hardy plants; Leopold de Rothschild, Esq., C.V.O., Acton, W., for sweet-scented Geraniums; and Messrs. Whitelegg and Page, Chislehurst, for herbaceous plants.

Bronze Flora.—The Guildford Hardy Plant Nursery, Guildford, for hardy plants.

Bronze Banksian.—Messrs. W. and J. Brown, Peterborough, for hardy plants; Messrs. Carter Page, London Wall, for annuals, Pelargoniums, &c.; The Misses Hopkins, Shepperton, for hardy plants; Messrs. Jackman, Woking, for hardy herbaceous plants; Mr. G. Reuthe, Keston, for hardy plants; Mr. L. R. Russell, Richmond, for Primulas; and Messrs. Ware, Feltham, for hardy plants.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of this association was held in the Goold Hall, St. Andrew Square, Edinburgh, on the evening of June 6. There was a capital attendance, with Mr. W. H. Massie of Messrs. Dickson and Co., nurserymen, president, in the chair. The exhibits were numerous, varied and, as a rule, excellent in every way. Sweet Peas were well shown by Messrs. Dobbie and Co., Edinburgh, and by Mr. J. Staward, St. Fort, Fife. Some good new Hydrangeas came from Mr. John Downie, Edinburgh. Hydrangeas were also sent by Mr. R. H. Cockburn, Gartmore, Perthshire, together with Solanum Wendlandii and Cytisus Adamii, the interesting hybrid Laburnum. Mr. Slater, Leebrae, Galashiels, sent Chrysanthemums Niveus and Western King. A new Pyrethrum, from Mr. Baillie, Stenhouse, Liberton, and named Stenhouse Beauty, was among the other exhibits on the table. The meeting took the form of a discussion on various questions introduced by the members. It proved an interesting one, and such questions as Mendelism, the Chrysanthemum leaf-borer, the Vine weevil, small-holding fruit and vegetables and other matters were discussed. The whole meeting was full of instruction and proved highly interesting.

TAGG'S ISLAND, HAMPTON COURT.

THE holding of a flower show upon an island in the Thames must go down to posterity as one of the unique features of Coronation year, and was, as events have proved, as successful as it was unique. From the flower show point of view the island, rich in historic associations in and around, is an ideal place, and the more so because of the summer-like heat and warmth that has been experienced. The primary object of the exhibition now under notice, and which was held on the 7th and 8th inst., was to aid the funds of the League of Mercy, which renders support to all the hospitals, and to make it more attractive a dramatic fête had been organised in conjunction therewith. The exhibition was under the immediate patronage of H.R.H. the Duchess of Albany, who graced the show with her presence in the early afternoon and remained a long time in the tents. The show, indeed, was held under the happiest auspices and for the common good, while handsome silver cups and money prizes to the value of £120 had been subscribed by friends and well-wishers of the society.

The premier class, in which cups to the value of £20, £15 and £7 10s. were offered, was arranged for nurserymen only for the best exhibit of flowering and foliage plants or cut flowers at the option of the exhibitor, on a space of 200 square feet. For these handsome prizes six competitors came to the front, the first prize falling to Mr. H. T. Page, Tangley Nurseries, Hampton, for a great display of Lilies, rambler and other Roses, Carnations and Astilbes, a really sumptuous feast of all that is best in these flowers and staged in Mr. Page's well-known style. Second prize, Mr. C. Engelmann, Saffron Walden, who, confining himself entirely to Carnations, staged one of the finest groups of these flowers we have seen. His vases of Carola, Harlequin and others were superb, and, given a little more attention to details, such as the vases springing from a bed of Fern, the beauty of the whole might have been much enhanced. Messrs. G. Mount and Sons, Canterbury, were in the third place with a very fine group of rambler and other Roses, the firm staging a grand stand, among others, of the new Hybrid Tea Mrs. George Shawyer, obviously a coming Rose. The other exhibitors in this class were Messrs. Cannell and Sons, Swanley, who staged a superb collection of Cannas; Mr. T. Page, Hampton, who had Roses, Astilbes and Lilies; and Miss Hemus, Upton-on-Severn, who quite naturally confined her attention to the Sweet Pea.

For a group of cut Carnations on a space of 100 square feet Mr. H. Burnett, Guernsey, led the way in superb style, Mr. C. Waters, Balcombe, being second. For one vase of Carnations effectively arranged, Mr. W. Hayward, florist, Kingston, took the lead, the same exhibitor leading the way in the bouquet class. For a group of Sweet Peas not exceeding 50 square feet, Mr C. Breadmore, Winchester, led the way, Mr. W. E. Alsen, Deamead, Hants, and Messrs. Bide and Son, Farnham, following in this order.

In the rock and water garden competition only one competitor came to the front, despite the ideal conditions prevailing for such work, the second prize, a cup value £7—the first prize being withheld—going to Messrs. Eggett and Son, Long Ditton, for a too feebly furnished exhibit, of which the general outlines were suggestive and good. Mr. G. Gibson, Leeming Bar, Yorks, took the first prize in the class for hardy cut flowers.

NON-COMPETITIVE CLASSES.

Here Messrs. James Veitch and Sons, Limited, Chelsea, led the way with a superbly-arranged group, which included many Orchids, Kalanchocs, Alocasias, Palms, Aralias and the like, blending together in the most delightful fashion. The group was greatly admired by Her Royal Highness. A gold medal was awarded.

Silver-gilt medals were awarded to Messrs. James Kelway and Sons, Langport, who had a prodigious group of all that is good in Pæonies and Pyrethrums; Mr. Amos Perry, Enfield, for a striking arrangement of Poppies, Dictamnus caucasicus and water plants; and Messrs. Barr and Sons, Covent Garden, for a collection of dwarf Japanese trees, Irises and Pæonies.

Large silver medals were awarded to Messrs. Young and Co., Cheltenham, for an excellent group of Carnations artistically arranged; Mr. Unwin, Histon, Cambs, for a delightful lot of Sweet Peas; and Mr. Elisha J. Hicks, Hurst, Twyford, Berks, for an admirably-arranged group of Roses.

Small silver medals were awarded to Messrs. George Jackman and Co., Woking, for a suberb exhibit of herbaceous flowers; Baker's, Wolverhampton, for Poppies and other flowers; Messrs. R. H. Bath, Limited, Wisbech, for Pæonies and Pyrethrums; Messrs. Jarman and Co., Chard, for Sweet Sultans; and Messrs. W. Wells and Co., Merstham, and Mr. G. Lange, Hampton, for Carnations.

Messrs. J. Peed and Sons, West Norwood, received a bronze medal for herbaceous plants.

BOURNEMOUTH GARDENERS' ASSOCIATION.

SOME very nice exhibits were staged in competition for the "Points" prizes at the meeting held on June 6. The exhibitors who receive the highest number of points for their staged produce (they can bring anything they choose) during the whole year receive the prizes. These competitions are very popular. Mr. Tompkins, gardener to the Dowager-Lady Miller, staged some very nice vegetables, Strawberries and a beautiful vase of Incarvillea Delavayii. He was awarded three points (the maximum) for Tomatoes Winter Beauty, two points for Peas Early Giant and Potatoes Ninety-fold, three for a fine dish of Strawberries Royal Sovereign, and the maximum also for the vase of Incarvillea. Mr. Nippard staged exceedingly useful plants of Hydrangea hortensis, large, well-coloured heads of blossom on plants growing in very small pots. Three points were awarded. He received two points for Spiræas in pots, S. Professor Sturingard, S. astilboides, S. W. E. Gladstone and S. Queen of Holland being staged in very good condition. Three points were also awarded to the same exhibitor for a fine healthy Fern in a 12-inch pot. Mr. Shave, gardener to the Dowager-Lady de Tabley, brought for inspection some beautiful plants of Begonia Fairy Queen with variegated foliage. They were raised by Mr. Shave and grown in a heavily-shaded house. He was advised to plant some in open borders and to again stage plants later in the season. The remainder of the evening was devoted to questions. A hearty vote of thanks was accorded Mr. Tompkins, who presided.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Agapanthuses in tubs not flowering (*M., Sussex*).—It is quite correct to say that Agapanthuses flower much more freely when pot-bound than if they have unlimited pot room. They prefer good lasting soil mainly consisting of fibrous loam lightened by a little leaf-mould, well-decayed manure and sand. This is very essential not only in the case of Agapanthuses, but all plants that are to stand some years in the pots or tubs. Whether the plants need top-dressing or not will depend upon the condition of the soil; but if it is in a good state it may be allowed to remain. The plants will be greatly benefited if they are from now onwards given a dose of liquid manure about once a fortnight till growth is complete. With the additional vigour thus imparted to the plants it is most probable that you will obtain a good show of blossoms.

Violet plants (*Miss D.*).—The Violet plants show no disease, and there should be no danger whatever in propagating from them. It would seem probable that the compost was not quite right for the plants for vigorous development.

Anchusa for August exhibition (*M. C.*).—August is late for it, that is, to have it in good exhibition form, and unless liberally treated the plant is not well suited to pot culture. The best you can do is to plant it in an 8-inch pot at once, give good soil and plunge it in the open garden to develop.

Topping Sweet Peas (*Mistress Mary*).—Generally speaking, the plants branch naturally; but when they are grown 6 inches to 8 inches the fewer laterals the better, or you will have a thicket of shoots that will throw their flowers on rather short stems. Taking everything into consideration, you will do well to rely upon natural breaks.

Pæony diseased (*Pæony*).—From what you say, the plants may have been attacked by the drooping Pæony disease (Botrytis Pæoniæ) or suffering from the effects of the spring frosts, and it is unfortunate you did not send specimens for examination. If the former, which is likely to prove a most troublesome disease, the affected parts should be collected and burned at once, since it is presumed that the germs of the disease hibernate in the tissues both above and below ground, the disease reappearing the following year; hence the removal of the plants elsewhere would avail nothing. The disease is best minimised or eradicated by plucking and burning all affected stems as soon as it appears, thus preventing the maturing and subsequent hibernation of the spores, and by early spraying with sulphide of potassium at the rate of 1oz. to two gallons of water. Lifted in early autumn, washed clear of all soil and the crowns well syringed with the above mixture might also prove helpful.

Thinning Sweet Pea growth (*A. H. W. D.*).—It is certainly advantageous to thin the haulm and afterwards to keep out the side growths where Sweet Peas are grown for exhibition. The haulm should be thinned when the plants attain the height of from 12 inches to 18 inches, selecting the strongest shoots and removing the weaker ones. The side growths must be removed from the selected shoots as they appear, thus throwing all the vigour to the selected shoot or shoots. On strong soils it is not necessary to thin too drastically, and most varieties would give very fine flowers on from three to six shoots; but much depends on the vigour of the plants and the amount of room that is given to each individual plant. On light soil the plants are very apt to die off for no apparent reason, and it generally happens at the time when they first begin to push their flower-buds. We have noticed this more often where the garden is somewhat enclosed or with large trees in the immediate vicinity. We advise that the ground be given a thorough dressing of lime next season in addition to a dressing of animal manure, and, if possible, the addition of a little clay of good loam would generally benefit the plants and give them the necessary vigour. If the plants are put out from pots without shaking them quite free from the soil, and so spreading out the roots, we have found them to collapse in the manner described, owing to the roots never getting away as they should from the old ball of earth. This is certainly a point to be guarded against, and causes more trouble than anything we know.

TREES AND SHRUBS.

Removing low branches from trees (*A. W.*).—You may gradually remove the lower branches from your trees, but it must be done cautiously, or the trees will grow too slender and be unable to support their own weight. It would be as well to remove a few branches where they are dense, then shorten the others about halfway and keep them shortened in, removing a few now and then as the trees strengthen and increase in height. By keeping the side branches short they do not increase much in diameter, but at the same time they produce plenty of leaves, which go to build up the strength of the trees. If you follow out this plan, your trees will become sturdy and able to stand without stakes. Pruning may be done at once. It is necessary that all wounds should be protected with coal-tar as soon as made.

Lily of the Valley Tree (*F. C.*).—The so-called Lily of the Valley Tree is Clethra arborea, an evergreen species, a native of Madeira. In some of the warmer parts of Cornwall it succeeds outdoors, but in most parts of the country the protection of a cool greenhouse is necessary for its successful cultivation during winter.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

PROSPECTS OF THE ROSE SEASON.

CAN any rosarian remember such a season as we are now passing through? Surely we must go back many years to find anything approaching it. What a contrast to last year, when scarcely a good exhibition bloom was staged at the early shows owing to damage by rain! Now we are, or have been, pining for rain, at least in most parts of the country, and as I write (June 12) the ground has great fissures in it, as if gaping for a refreshing downpour.

What, generally, are the prospects of the Rose season? So far as the writer has been able to judge, Roses will be at least ten days earlier than usual, and for the majority of exhibitors the National Rose Show will be at least five or six days too late. The small amateur who grows his 200, 300 or 400 plants will find it difficult to exhibit at the "National" show, unless he has been wise enough to plant Roses of good staying powers, such as the Cochets, Medea and Her Majesty, for it is these that will score largely this season. It is quite certain that in the Rose Analysis many of the thin-petalled varieties will have to come down considerably in the list.

I hear excellent accounts of the Roses in Essex, and shall not be surprised if this county does not come out very strong this season. Ireland may have to forego the honours she has taken for some time. In the Sister Isle they have had terrible visitations of green fly and other insect pests, and they have suffered much from the intense heat, so that there will be no staying power in the blooms unless rain falls very soon. Scotch and Northern growers should give a good account of themselves, if not at the "National" on July 7, then certainly at Ulverston on July 19, and also at intermediate shows.

The blight of insect pests has been extraordinary, and I have never before seen so much of the frog-hopper or cuckoo-spit. This is a most dangerous foe, and should be exterminated as quickly as possible. The maggot pest has also been most distressing, which makes one long for a good remedy that can relieve one of the painful necessity of squashing the pests, to say nothing of the loathing such a practice involves.

Amateurs who have their Rose gardens in a well-exposed position will gain much thereby this season. On June 8 the writer was in an amateur's garden where walls abounded on every side. His Roses were well out, and he will be lucky if he is able to stage six blooms on July 7. Deeply-worked clay soils will give their possessors a great advantage this year. In the first place, they relieve him of the necessity for watering, which tends to accelerate the blooming, and they also give stamina to the flowers. Those who have maiden plants, especially standards, upon such soils will be in a good position at the "National," providing they possess sufficient plants.

Amateurs would do well to profit by the lessons of this season, and in future grow a good number of maiden plants, using rather the seedling Briar than the Briar cutting, as it is a much later stock, and its long roots penetrate well down into the cool, moist stratum provided for them below. Another good plan to retard the plants is to pinch out their points when about 6 inches long. Plants so treated are only now showing bud, while unstopped plants are showing colour. Mulching with spent Hops is a valuable aid in a season of drought. Although the Hops dry on the surface, beneath there is a moisture, if put on fairly thick, that must be refreshing to the surface roots. Disbudding, by sometimes removing the centre bud instead of the usual side buds, will retard the blooming some few days, and this may be of much importance for late shows. Again, by planting the thin-petalled Tea Roses, such as Marie van Houtte and Lady Roberts, on a north wall we are able to cut specimens of these delightful Roses much later than when they are out in the full sunshine.

Those who are exhibitors will be grateful to raisers if they give us sterling novelties of the lasting powers of such as Mrs. Foley Hobbs, William R. Smith, Mrs. Myles Kennedy, Margaret, Bessie Brown (without its faults) and Souvenir de Pierre Notting (also without its faults).

It is certain we shall see some phenomenal specimen blooms this season, and it is to be hoped means will be taken to photograph anything unusual, as we may not have such another chance for some years to come. At the Coronation of our Most Gracious King and Queen, the Rose, England's national emblem, will be in very great beauty all over the land, much

more so than we dared to hope in the early spring, and visitors from other lands will be able to see, as they travel about the country, why the Rose is so dearly loved in England by the manner in which it garlands the arches and clothes the walls of cottage, mansion and palace. P.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 27.—Wood Green and District Horticultural Society's Meeting. Southampton Rose Show (two days). Royal Agricultural Show at Norwich (four days).

June 28.—Richmond Flower Show at Old Deer Park. Irish Gardeners' Association and Benevolent Society's Meeting. Walton and District Rose Show. Windsor Rose Show.

June 29.—Canterbury and Kent Rose Show.

July 1.—Sutton Rose Show.

Rosa hemisphærica.—At a meeting of the scientific committee of the Royal Horticultural Society, held on the 6th inst., the Rev. Canon Ellacombe sent flowers of the sweetly-scented Rosa hemisphærica from a plant growing on a wall in his garden at Bristol. This yellow Rose, which is very rare in gardens, is said to flower only in very dry seasons.

Cattleya gigas alba.—It will be of interest to those who make a speciality of Orchids to learn that this Cattleya, which received a gold medal at the great Boston show in the United States last May, has, after prolonged negotiations, been purchased by Messrs. Stuart Low and Co., Bush Hill Park, Enfield, and is now in their nurseries there. This Orchid created quite a sensation at the Boston show, as well as in this country, and was recently illustrated in the *Orchid World*.

The Royal Agricultural Show, Norwich.—As already announced in these columns, the horticultural section of this exhibition, to be opened on Tuesday, June 27, promises to be exceptionally good. For the convenience of those who wish to visit the show, the Great Eastern Railway is running special restaurant-car express trains from Liverpool Street and St. Pancras during that week, as well as special trains from suburban stations. Reduced fares for the return journey will also be in operation on certain days. Full particulars concerning this special train service can be obtained from the Superintendent of the Line, Liverpool Street Station, London, E.C.

Swanley Horticultural College.—Owing to the increasing demand for qualified teachers of Nature-study and gardening, the governors of the above college have decided to start in September next a year's course in natural history. This course has been arranged for students who, having passed through the ordinary training in gardening at the college, wish for additional training in natural history subjects in order to qualify as teachers of gardening and Nature-study. It is hoped the course will also prove useful to qualified teachers who wish for a thoroughly practical training in the latter subject. Other students not already qualified as teachers will be admitted to attend the course, provided they are able to satisfy the authorities that they are in a position to take full advantage of the instruction. Full particulars can be obtained from the Principal, Swanley Horticultural College, Kent.

National Vegetable Society's trials.—We have just received a preliminary report, drawn up by the chairman of the committee, on the trials of vegetables being conducted at the *Times* Experimental Station, Sutton Green, Surrey, under the auspices of the above society. These trials include sixty-one stocks of Carrots, fifty-two of Beetroots, early Peas fifty, and Cauliflowers eighty-eight. The autumn sowing of the last-named proved unsatisfactory, but the spring-sown trial is full of promise, as also are the trials of the other vegetables named. The results of these trials, when published, should be of considerable value to gardeners, both amateur and professional.



MR. A. MACKELLAR, HEAD-GARDENER TO THE KING.

National Chrysanthemum Society.—The annual outing of this society will take place on Monday, July 17, when a visit will be paid to the famous grounds at Cliveden, Taplow, by kind permission of the owner, W. Astor, Esq. The party will travel by train from Paddington to Windsor, and thence by the steam launch His Majesty from Windsor to Cookham and Cliveden. Full details of the excursion may be obtained from the secretary, Mr. Richard A. Witty, 72, Savernake Road, Gospel Oak, London, N.W. A very useful book entitled "The Culture and Exhibition of Large Chrysanthemum Blooms" has just been issued by the society. It is written by leading experts, and will prove of great interest and value to exhibitors of the Chrysanthemum.

United Horticultural Benefit and Provident Society.—At the monthly meeting of this society it was proposed by Mr. Wesker and seconded by Mr. Burge, "That at as early a date as possible Messrs. Curtis, Hudson, Collins, Dick, Thomson and Bilney act as a deputation to the Chancellor of the Exchequer *re* the United Horticultural Benefit and Provident Society in its relation to the National Insurance Bill."

The fruit crops in Scotland.—Considerable anxiety prevails regarding the fruit crops throughout the greater part of Scotland, especially in those localities where large quantities of Strawberries, Raspberries and Currants are cultivated for the market. In some districts early Strawberries are almost a failure, while the later ones are showing signs of distress, caused by a continuance of dry weather. Both in the Clydesdale and Blairgowrie districts, the leading ones in which fruit-growing for market is extensively conducted, Strawberries have been marketed. In the Blairgowrie district a price of £25 per ton was realised, while the first consignment sent to Glasgow Market, which came from Mr. William Stewart, Braidwood, on June 10, made about 2½d. per pound. Currants and Plums are suffering badly in Perthshire and in other places, and Raspberries have been bringing higher prices on account of the anticipated short supply caused by the weather.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Marechal Niel.—Like your correspondent J. Brown (Balminnock), I favour the growing of this Rose on its own roots, the best plants being those propagated from young shoots, with a small heel of harder wood attached, inserted in sandy loam in a propagating-frame in spring. For many years I rooted cuttings in this way. I also frequently purchased plants worked on stocks, and my experience was that they rarely lived more than seven years, always dying from canker. Of course, my treatment may have been faulty; but plants on their own roots lived much longer in similar circumstances. From three and four year old plants growing in outside borders, with branches trained under glass, I did not find it a difficult matter to gather nearly 100 flowers at one time, with a few stray ones afterwards. In a farmer's greenhouse in Cheshire I recently saw a fine Maréchal Niel plant which nearly covered the whole roof of the structure, a span-roof about 25 feet long. The plant had grown there for more than twenty years and was very healthy, but at the junction of stock and Rose the canker swelling was as large as an average-sized Cocoanut. The Rose stem above was well developed, measuring about 9 inches in circumference; but the stock below was about the size of an ordinary walking-stick, not more than 4 inches round it. This condition had obtained many years, yet the Rose remained in a flourishing state.—AVON.

Roses and insect pests.—Now that the insect season is upon us, I do not find that

syringing keeps my Roses as clean as I like them to be. My plan is to paint each new shoot and the buds with a very strong Quassia and soft soap solution of the consistency of jelly (mixing about a pint at one time in a pudding-bowl), using an artist's paint-brush to apply it. I find this makes the tender flesh of the plant so bitter that subsequent rains make no difference, and it is seldom necessary to do a second time a shoot that has been once done. Plants like Melanie Soupert are very quickly done; others, like Corallina, Zepherin Drouhin and Edu Meyer, are more tedious; but they are well worth any outlay of time and attention. It takes me about an hour and a-half per 1,000 buds. The eye travels quickly over the plant looking out the new shoots, and a few brushings over, rubbing the mixture well in, are soon accomplished. My plants are kept absolutely clean treated in this way, and I practically do not lose a dozen buds in a season.—C. L. Cox, *Tanllan, Dolgelley.*

South African emblematic plants.—A matter of some interest to all interested in plants has recently arisen in the public Press in connection with the subject of what plant should be adopted as the emblem of South Africa in the embroidery of the King's Coronation robes. It was currently reported, some weeks back, that the Wattle had been selected, which seemed a very strange selection, as the head-quarters or native country of the Wattles—namely, species of Acacia—is Australia, whence they have been introduced into South Africa. In reference to this selection, the *Cape Times*, in an article on the subject, says, "The announcement has been received with mingled amusement and chagrin," and, further, rightly declares that "the national emblem should be a native of the country." This opinion has been confirmed by Professor H. H. W. Pearson, the present Professor of Botany in the South African College, Cape Town, who has suggested the adoption of the Cape Sugar Bush or Honey Flower (Protea mellifera) as thoroughly representative. It seems to me, however, that another and still more striking plant might be adopted which has an equal or better claim, certainly a more popular one, namely, the Cape Silver Tree (Leucadendron argenteum). Of this tree Mr. W. B. Hemsley, in his descriptive catalogue of Miss North's paintings in the gallery at Kew, says, "The Silver Tree characterises the vegetation of the slopes of the eastern side of Table Mountain, where alone it grows plentifully in a wild state. Formerly it was supposed to be restricted to the Table Mountain, but it has recently been found in several localities in the Drakensteenberge, at a distance of between fifty and sixty miles. Whether it is really wild or originally planted in these places is a little uncertain. It is readily distinguished from all its numerous congeners." The long, narrow, silvery leaves and the silvery cone-like fruits would readily lend themselves to conventional treatment for decorative purposes, and, further, the plant is more generally known than the Proteas on account of the leaves being frequently sold in England for book-markers and for other ornamental purposes. Whether or not the Silver Tree is ever adopted as emblematical of United South Africa, it is, at all events, an interesting plant, both for its silvery leaves and for the peculiar parachute-like appendage to the seeds, which, assisted by the wind, extends their distribution; and for the benefit of those readers residing in the neighbourhood whence I write who would wish to introduce the plant into their greenhouses, I may, perhaps, say that the seeds of Leucadendron argenteum are included in the seed list of Messrs. Robert Veitch and Son of Exeter.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS BORDERS.—Should the weather continue to be dry for a lengthened period, it will be necessary to give herbaceous plants frequent waterings. Thin out large clumps which show a tendency to become too dense. The true character of plants is often spoilt through neglect in this matter. Plants which require the support of stakes must be attended to at once, or wind and heavy rains may do them considerable damage. The surface of the soil between the plants must be disturbed at frequent intervals.

The Rock Garden.—It is necessary to go over the rock garden occasionally to prevent the stronger-growing plants from encroaching too far in the vicinity of the weaker. If this is not attended to, there is danger of losing some of the choicer plants. This work should be done at regular intervals, as the cutting away of too much growth at one time gives the whole an untidy appearance. Do not let the plants suffer for want of moisture.

Carnations.—See that the flowers are carefully staked, and if necessary remove some of the buds from near the main flower. Give the beds a top-dressing of manure. The materials from an old spent Mushroom-bed are excellent for this purpose. Should the weather be dry when this is done, give the plants a good watering.

Climbing Plants.—Plants growing on walls or pergolas must be regularly attended to in the matter of thinning and arranging the growths. It will be necessary in the case of strong-growing plants to use the knife freely, or the weaker and choicer of the plants will get crowded out. Look after the young growths coming from the base of climbing Roses; these will be required later on to replace the old flowering wood.

Pruning Flowering Shrubs.—When these have flowered they should be carefully pruned. This work must be governed according to the position they occupy. In some cases it is necessary to allow them to assume large proportions, when a judicious thinning of the growth is all that is required. In the case of smaller shrubs growing in limited space, the growth must be shortened back. These shrubs must be treated with care and judgment, or they will have the appearance of a clipped hedge. Late-planted trees and shrubs must not be allowed to suffer for want of moisture. If not already done, they should be mulched with some suitable material.

HARDY FRUIT.

The continued hot, dry weather will be very favourable for the development of insect-life on fruit trees, and it will be wise to persevere with spraying with insecticides. Trees carrying heavy crops of fruit will benefit by applications of diluted liquid manure. The value of mulching cannot be over-estimated, and as much of this should be done as time and materials will allow. Apples and Pears are giving promise of heavy crops, and it will be necessary to thin the fruits. A pair of large Grape shears will be found useful for this work. I am afraid the fruits on Peaches, Nectarines and Apricots will not require much thinning this season. Here, at all events, the crop is very sparse. The young wood must be laid in, and should there still be aphis present on the leaves, make every effort to rid them of this, or the shoots will be unable to grow freely.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

A CONTINUATION of the present hot and dry weather will necessitate a slight departure from the usual dates for sowing seeds of various vegetables that are intended to keep up a late autumn supply. In ordinary seasons we do not advise the sowing of Peas later than about June 10. Even at that date they may not be of much service if the autumn months prove dull and cold; but this year, with midseason varieties coming on so quickly, I recommend another sowing about this date, selecting a variety that does not require a long season to come to maturity. Veitch's Perfection is the variety we have hitherto found to suit well for sowing on June 10, and this year we shall make an extra sowing of this sort a fortnight later than usual. Maincrop varieties, as soon as they reach about 1 foot high, should be liberally watered during dry weather and given a mulching of half-rotted farmyard manure to extend about 18 inches on each side of the rows. This will tend to keep them growing unchecked and also prevent attacks of mildew, which is the greatest enemy to Peas in dry seasons as well as during cold and damp weather. A liquid manure tank is a valuable asset in the kitchen garden, and its contents should on no account be allowed to run to waste, as is often the case, as all vegetable crops can be greatly benefited by its use.

Parsley.—This is in daily request, and if a good supply is required during the winter and spring months, a sowing should be made now and the plants well thinned out or transplanted as soon as ready to handle to a well-prepared piece of ground. A good plan also to ensure a winter and spring supply is to cut over the growing crop close to the ground when gathering the daily supplies in autumn; the after-growth, being short and sturdy, will withstand all but the severest of our winters.

Coleworts.—These are preferred by many cooks to the larger forms of Cabbage generally supplied in the autumn, and seeds should be sown now in a fairly cool and shady place. Immediately the plants are ready to handle they can be planted 1 foot apart each way on ground that has been made moderately hard by treading. Successional sowings of Kidney Beans, Lettuces, Radishes, Early Horn Carrots and an early variety of Turnip may still be made.

Spinach, which is not in much demand during summer, owing to the plentiful supply of other vegetables and to its tendency to run quickly to seed in hot weather, may be sown now in small batches for an autumn supply, selecting a cool and partly shady position. Later sowings may be continued weekly after this date, for from some of these will be got that early spring dish which is so much appreciated as the first green vegetable. The Viroflay variety suits well for sowing at all seasons.

Cauliflowers.—A further planting may be made at this time, selecting an early variety which will furnish nice heads at a time when a break in the supply is most likely to occur. Broccoli should also be planted out about this date, but it is necessary to make a careful selection of the varieties most suitable for the district, only the earliest and the latest varieties being reliable with us. The sprouting varieties, both white and purple, we find most useful, being very hardy and prolific.

Rhubarb.—To prepare Rhubarb for forcing, the crowns should be allowed to grow and ripen without having any of the stalks pulled during the summer. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE ROYAL GARDENS, WINDSOR.

IN the midst of the Coronation festivities it is, we think, appropriate that a review of the magnificent gardens at Windsor should be given. In presenting an account of these world-famous gardens, our first desire is to express our grateful appreciation of the privilege generously accorded, and of the assistance that has been rendered, in enabling us to procure the illustrations that appear in this issue, together with various particulars concerning them.

In addition to the historical interest that is at once associated with the Royal Gardens, their brilliant horticultural record is equally as noteworthy. Horticulture in general owes a deep debt of gratitude to the support it has received from Royal hands. There are many who well remember the great impetus that was given to gardening by the late Prince Consort, who was elected President of the Royal Horticultural Society in 1858. The late King was responsible for the wonderful improvements and remodelling of the Royal Gardens at Windsor. To-day signs are not wanting of the great devotion of our present King and Queen to the art of gardening. Less than a month ago Their Majesties were present at, and displayed the keenest interest in, the great spring show of the Royal Horticultural Society held in the Temple Gardens, thus honouring the whole world of horticulture by their presence.

Windsor Castle, as is known by every British subject, has long been the home of the Kings and Queens of England. It towers above all that is near, and typifies the solidity and strength of the nation. As a massive and yet picturesque Castle it is unrivalled. Although it has stood for centuries, even its oldest parts—for it has been built at different periods—seem quite unscathed. To-day, however, it is no longer a fortress, but a home; despite its solid walls, its ancient gateways and its fortifications, it is now surrounded by an air of freedom and tranquillity.

The Round Tower Garden.

In no way can this be better illustrated than in taking a passing glance at the steep bank which partly surrounds the Norman Tower, better known, perhaps, to the English-speaking race as the Round Tower. This tower occupies a formidable position, but the steep bank, obviously a grand source of defence against an invading army in past years, has been converted into the most charming and peaceful garden that it is possible to imagine, and which owes its beauty and interest to Sir Dighton Probyn. Here may be found a collection of alpine plants as rich in species as it is in floral beauty. An expanse of grass-covered bank is given up to Daffodils naturalised in colonies, and these give a good account of themselves early in the year. At the foot of this bank, where one could well picture a moat in olden times, may be seen bog and moisture-loving plants, fed by a little stream which trickles down among the rocks. Arches of Roses, bowers of Clematis and a beautiful border of herbaceous plant all find a home in this charming garden. Here, also, we find an old sundial, the column and carved stonework of which are over 800 years old (see illustration on page 298), the dial itself bearing the quaint inscription:

"Amyddst ye Fflowers
I tell ye houres."

This garden also possesses a Poets' Corner, where, in a rustic summer-house, one may read quotations from the poets—a happy combination of sentiments in a garden such as this.

The Castle is situated on the right bank of the Thames, and the natural scenery surrounding is quiet but truly English. Looking from the south side may be seen an immense straight avenue, mainly of Elm trees, about three miles long. This is the famous Long Walk, and beyond are the well-wooded Park and Forest covering 13,000 acres, and containing some of the oldest Oaks in the kingdom.



A FINE SPECIMEN OF LIBOCEDRUS DECURRENS ON THE LAWN AT FROGMORE HOUSE.

From the North Terrace may be had a fine view of Eton College and the undulating scenery beyond. The East Terrace is, perhaps, the best known, as it is open to the public on Sunday afternoons during the summer months. The terrace is laid out in a formal style as an Italian garden, which is quite in keeping with its position, as it is immediately adjacent to the Castle windows. From this terrace one looks out on to the spacious and well-kept golf links and to the well-wooded slopes bordering the river Thames.

Adelaide Cottage.

Following an easterly course from the Castle, we arrive at one of the prettiest buildings in the Home Park. It is known as Adelaide Cottage (see illustration on page 298), so named from the fact that it was built by Queen Adelaide in 1831. It is beautifully situated, and is now used for tea-rooms by Their Majesties during summer afternoons. Close to Adelaide Cottage is a famous Beech tree, raised from a cutting taken from Luther's Beech, near Altenstein, in the Duchy of Saxe-Meiningen. Dr. Martin Luther was arrested under the parent tree in 1521. The offshoot was brought to England by William IV., and the original tree has since been destroyed by lightning.



TEA-ROOMS IN THE GROUNDS AT FROGMORE.

Roses are grown here in a delightful manner on a long pergola, and the variety Tea Rambler, in particular, was making luxuriant growth and flowering freely at the time of our visit.

FROGMORE HOUSE.

The most imposing residence in the Home Park is that known as Frogmore House, and the grounds surrounding it contain some remarkably fine trees. Particularly interesting is a tall, perfect specimen of Libocedrus decurrens, which stands, sentinel-like, on the lawn, and is, undoubtedly, one of the best of its kind in the country. Another occupant of the lawn is a veteran tree of the False Acacia (Robinia Pseudacacia), of which there are many good examples in the Home Park. This particular tree carries large bunches of Mistletoe, which are growing luxuriantly. There is also a good specimen of the Maidenhair tree (Salisburia adiantifolia) near by. Last year this tree was struck by lightning, but it has been carefully tended, and now seems little the worse for its experience. Not far distant from these trees are the Royal Mausoleums, with memorial trees planted in close vicinity.

THE FROGMORE GARDENS.

We now arrive at the Royal Gardens, which in recent years have been entirely remodelled and brought up to date. So thorough has the work of renovation been carried out that these gardens to-day hold the very foremost position in the country. Though of necessity on a very large scale, the design makes no pretence at being artistic; it is decidedly simple, yet magnificent in the extreme. The primary object of these immense gardens is to produce the finest fruits and vegetables for the Royal tables, and flowers for decorative purposes. On entering one is bound to be impressed with the smart appearance of the broad gravel drives which lead up to the head-gardener's house and branch off at right angles to the numerous glass houses. We give an illustration of the head-gardener's commodious house, which occupies the central position. To the right and left are immense blocks of glass houses, and at right angles to the latter is a hip-spanned fruit range no less than 1,000 feet in length. Both blocks of houses are connected at one end by a glass corridor, thus allowing visitors to pass from one house to another without facing inclement weather or extremes of temperature. Running parallel to this range is another of equal length, and likewise devoted to fruit, on the south side of the head-gardener's house. With the exception of the last-mentioned range, all of the glass houses, both for plant and fruit growing, have quite recently been constructed. The one long range that has not been reconstructed is built on a framework of copper, and is likely to remain for an indefinite time, as no useful purpose could be served by its removal.

All the houses have been constructed with one great object in view, and one only, viz., that of production. Utility is unmistakably the first consideration, and it gives the keynote to the well-ordered and business-like atmosphere that prevails within the Royal gardens.

The same applies to the immense kitchen garden, covering about sixty acres. So great is the annual output from each department that it has been well named the Royal supply garden.

FRUIT UNDER GLASS.

The extent of productiveness is quite apparent in the fruit department under glass, and obviously the one object in view in all recent improvements in the fruit ranges is to enhance their usefulness. The cultivation of indoor fruits has always been a leading feature at Frogmore, and of necessity it is carried out on a very large scale to meet the constant demand that is made upon dessert fruit. No fewer than eighteen spacious houses are devoted to the Vine. In most cases each variety is grown in a separate house, but this is not an invariable rule. Of the many varieties under cultivation there is none that meets with so much favour as Muscat of Alexandria. There are no fewer than six houses devoted to this one variety, and from these houses the supply of ripe fruit is kept up for well over eight months of the year. This supply is maintained by careful management in bringing on a succession of crops, and by storing in the Grape-room when thoroughly matured in December. There are two well-equipped Grape-rooms for storing the fruit with the stems in bottles when ripe. These two rooms accommodate 3,000 bunches of Grapes. In the fall of the year one late Muscat vinery may be ripening its fruit while an early one is just being forced into growth, the excellent heating arrangements enabling this to be done. For a late supply Lady Downe's and Alicante are largely grown, while among the varieties that provide an early supply are Black Hamburgh, Foster's Seedling and Madresfield Court. The Black Hamburgh is grown for the earliest supply, and in passing we might note that it is this popular variety that has attained a venerable old age, both at Hampton Court and Cumberland Lodge. They are, perhaps, the two best-known Vines in the country, and both of them are under the care of the head-gardener at Windsor. Cumberland Lodge, it should be mentioned, is situated in Windsor Great Park, three miles from Frogmore. A very fine example of Grape Foster's Seedling, about forty years old, and grown on the extensive system, may be seen at Windsor. Each year it bears a



THE HEAD-GARDENER'S HOUSE IN THE ROYAL GARDENS, FROGMORE.



ADELAIDE COTTAGE IN THE HOME PARK, WINDSOR.

prolific crop of fruit, and the berries when ripe assume that fine clear colour that one generally associates with Muscat of Alexandria. The Strawberry Grape, so named from its alleged Strawberry flavour, is still cultivated in these gardens. The small black fruits of this variety have quite an acquired flavour which meets with a certain degree of approval as a dessert fruit, although to the fruit specialist it is quite an inferior kind. Peaches and Nectarines form a leading feature in the indoor fruit department, and afford fine examples of good training. The trees, which are a perfect picture of health, are all fan-shaped. The system followed in training them is that of laying in the young wood growing on the upper side of the main branches, all that grows from the under side being removed. Numerous varieties of both Peaches and Nectarines are grown. Among the Peaches the following are the most reliable croppers: Royal George, Early Rivers', Sea Eagle, Grosse Mignonne, Bellegarde, Hale's Early, Stirling Castle, Dymond and Violette Hâtive. There is also a good selection of Nectarines, foremost among them being Pineapple, Elruge, Lord Napier and Cardinal. The two last-named are also extensively grown as pot trees.

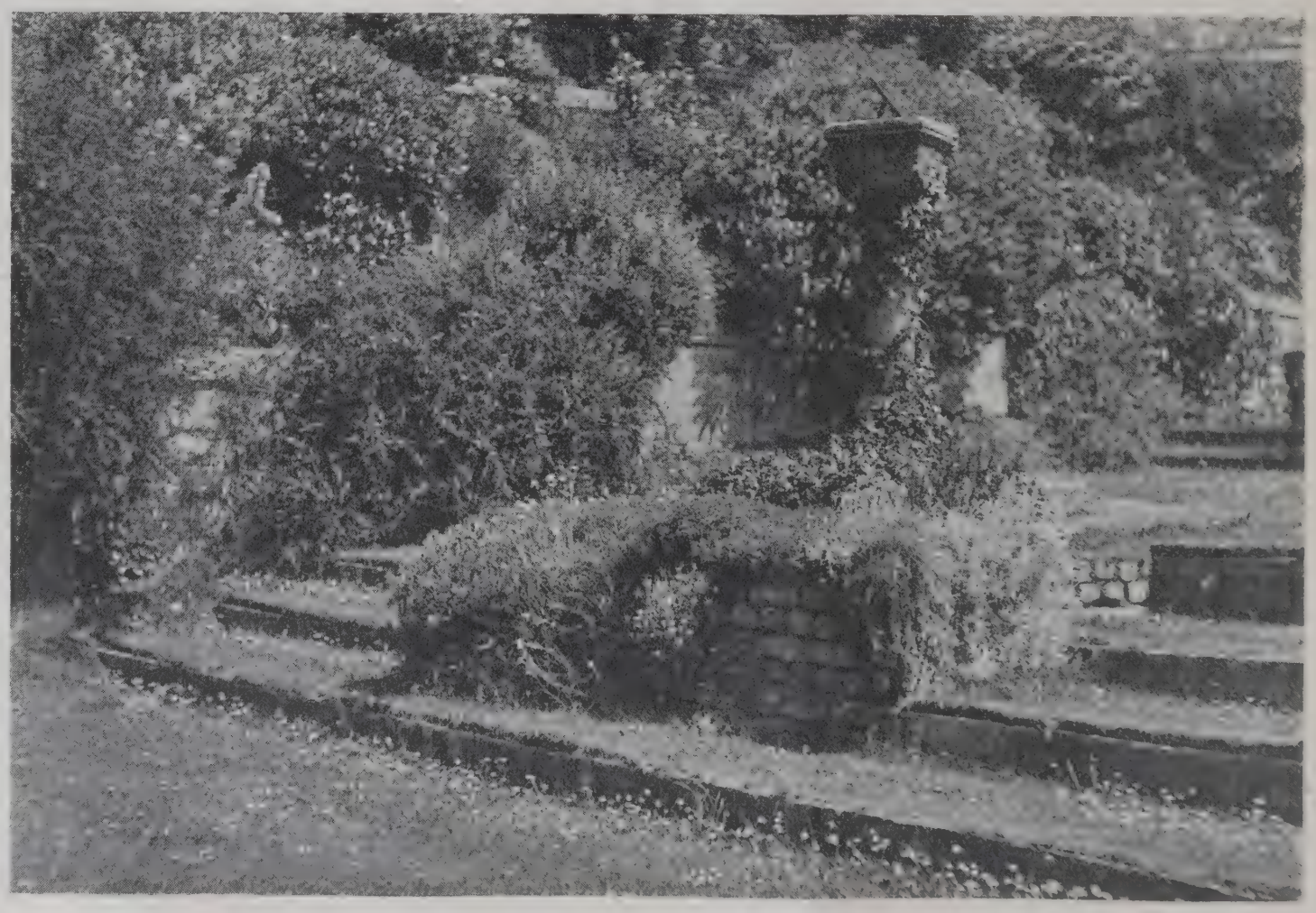
The Fig is a fruit of considerable importance at Frogmore. Not only are special houses built for its cultivation, but it is also grown in the glass corridors which connect the Cucumber and Melon houses, &c., on the east block. The variety most grown at Windsor is the ever-popular Brown Turkey. Melons are grown on a large scale, the supply of fruit being maintained from April to November. A number of new varieties of sterling merit have been raised in these gardens. Foremost among them is Eminence, now considered one of the finest exhibition Melons procurable, and it is also of delicious flavour. Other varieties that have originated in these gardens are Frogmore Scarlet, British Queen and Frogmore Orange, three first-class varieties.

Cucumbers and Tomatoes are likewise produced on a colossal scale. Among the good varieties of Cucumbers that have originated in the Royal Gardens are Every Day, Frogmore Prolific, and a new variety which is being sent out this year under the name of Dreadnought. In addition to the new Melons and Cucumbers raised in these gardens, a number of leading varieties of Tomatoes also originated here. Foremost among them are Dwarf Red, Frogmore Selected and Golden Jubilee. The first-named is certainly a great acquisition; it is a very heavy cropper of dwarf habit. A new variety, as yet unnamed, but invaluable as a winter cropper, will doubtless be widely cultivated when it becomes better known.

Needless to say, Strawberries are forced in thousands, and we know of no garden where they are grown under glass with such remarkable success. We have never seen better-coloured fruits. One reason why the fruit there is of such high quality is doubtless due to the excellent loam brought from Windsor Park. A better loam for the making up of Vine, Peach and Fig borders could not be desired. Strawberries that are forced in pots are also grown in park loam. A very dark, almost black, Strawberry, known as Waterloo, is forced successfully and is a great favourite on the Royal table. But the variety which gives the best return and the one that is most largely grown is the time-honoured favourite, Royal Sovereign. No fewer than 10,000 plants are forced each year, and they are all grown in special deep-rimmed 6-inch pots.

PLANTS UNDER GLASS.

For the past few months this department has been the scene of great activity, special preparations having been made for an exceptional demand upon cut flowers. In addition to many houses devoted to Carnations, Orchids, Begonias and greenhouse plants in general, there is a large



OLD SUNDIAL IN THE ROUND TOWER GARDENS, WINDSOR CASTLE



THE NEW PERPETUAL FLOWERING CARNATION, LADY ALINGTON

Palm-house 150 feet in length, which is filled with specimen Palms, such as Kentias, Arecas and other ornamental foliage plants of all sizes useful for furnishing large groups that are arranged within the Castle when the Court is in residence there. At the north end of the Palm-house is a spacious conservatory filled with flowering plants and Palms in ornamental tubs standing on a mosaic floor of handsome design. The long corridor, likewise the principal stoves, Carnation and Orchid houses, are all paved with Italian mosaic flooring in marble.

Orchids are remarkably well grown, and although the collection is not rich botanically, yet for floral effect it is all that could be desired. The Calanthes are especially vigorous. Only the decorative varieties of Cattleyas, Odontoglossums, Oncidiums, Dendrobiums and Cypripediums are grown. The corridor is furnished with beautiful climbing subjects, comprising Passiflora atrocærulea, Rhodochiton volubile, Bougainvilleas, Solanum jasminoides, Heliotropium, Cassia corymbosa, Abutilons, Plumbago capensis, Fuchsias and many others.

Carnations, both Malmaison and Perpetual-flowering, are favourite flowers at Windsor. Many houses are devoted to them, and a supply of flowers is kept up all the year through. The plants themselves possess just that happy appearance that delights the good plantsman. Prominent among the Souvenir de la Malmaison Carnations are Princess of Wales and Duchess of Westminster, two varieties of special merit. The newer variety Marmion is also well grown there. The Perpetual-flowering varieties are grown in great numbers, and include all the best sorts that could be found in a representative collection. Mrs. T. W. Lawson and its numerous sports, also Mrs. Burnett, Britannia, Harlowarden, and White and Pink Enchantress are grown in great numbers. Thousands of plants of Begonia Gloire de Lorraine are grown for a winter display, and a special house is devoted to them, where basket plants are suspended from the roof and a massive bank of flowers on either side, creating a gorgeous display of bloom in the dull winter months.



OLD DRIPPING WELL IN THE ROUND TOWER GARDENS. THE ROSE IS PAUL'S TEA RAMBLER.

Heating Arrangements of the Glass Houses.

It will readily be seen that the work of heating so large an establishment is a matter of the greatest importance. The heating apparatus has now been put to the test for a few years, and there is no hesitation in saying that it is as perfect as it is possible to have it. The houses are splendidly adapted for a succession of crops, as by a simple matter of regulating a valve one house may be heated while another is kept quite cold. The houses are heated by six "Cornish" boilers, but prior to the alterations there were about thirty boilers in use, so that the new system is obviously a great saving in labour and expense, besides being more efficient, as the operator has full control over the heat. All the pipes connected from the boilers are in underground tunnels, and so arranged that they may be reached for repairs if necessary with comparative ease. Quite recently some new electrical turbines have been installed to increase the circulation of hot water in the pipes, and it is hoped that these will avoid the necessity for extra heavy firing. Altogether there are about fourteen miles of hot-water pipes. Rain-water is collected in large tanks from the roofs of the houses and used for supplying the boilers. The whole of the greenhouse construction and the heating apparatus was carried out by Messrs Mackenzie and Moncur, Ltd., of Edinburgh and London.

The bothy (see illustration on page 300), also built by this firm, is a model home for the young gardeners of Windsor. It is equipped with every comfort in the way of reading

room, bathrooms, bedrooms, &c., each gardener having a separate bedroom.

ROSES AND HERBACEOUS PLANTS.

Roses, particularly the China or Monthly Roses, are to be seen in large quantities. Exceptionally long borders on either side of the young gardeners' bothy are filled with China Roses, and these are very useful for cutting at a season when other Roses have passed over. Many of the Rambler Roses grown along the Terrace Walk between the south fruit range and the kitchen garden now provide a most pleasing sight. Of the bush-grown varieties useful for cutting as well as for garden decoration we would especially mention Caroline Testout, Mme. Abel Chatenay, Frau Karl Druschki, Mrs. J. Laing, Ulrich Brunner and Gustav Grunerwald, all popular and well-tried sorts. Of the climbing Roses Tea Rambler deserves a special note of praise, and others that are grown include Blush Rambler, Queen Alexandra, Dorothy Perkins, Mme. Plantier and Reine Olga de Wurtemburg.

Near to the bothy is a herbaceous border about 1,000 feet in length. During August and September this tremendous border provides a magnificent effect. In the spring months it is gay with early-flowering subjects, notably May-flowering and Darwin Tulips, planted in bold clumps at intervals throughout the border.

HARDY FRUIT AND KITCHEN GARDEN.

It will give our readers an idea of the immense size of these two departments when we say that about 60 acres are devoted to hardy fruits and vegetables. The kitchen garden is divided and subdivided into many quadrangles, each surrounded by high brick walls. These walls are utilised for wall-trained fruit trees, and there is between three and four miles of 12-feet wall entirely given up to trained Pears, Peaches, Apricots and other fruits. Although the gardens are of such magnitude, they are at the same time notable for their absolute cleanliness and neat appearance. The situation is naturally low-lying, as Frogmore is in the Thames Valley and not far removed from the river. The soil is cold and heavy, nevertheless it seems to suit Peaches quite well, for in few gardens are these fruits grown outside with the same degree of success. Apples are grown in endless variety, chiefly as pyramids. Some of the best kitchen Apples are Lord Suffield, Bramley's Seedling and Sandringham, which ripen in the order given. There is a wonderful selection of dessert Apples. Lady Sudeley is very good as an early variety, and colours well on the Windsor soil. Cox's Orange Pippin and Reinette du Canada are favourites there, and seldom fail to give a good account of themselves. Pears are chiefly grown as espaliers, and many excellent examples of well-trained trees are to be seen.

The kitchen garden is kept up to the high standard of excellence that characterises the other departments, but space prevents us from dealing in detail with the crops of Potatoes, Peas, Beans, Celery, Cabbage, Cauliflowers, &c., all of which are so well and extensively cultivated.

On page 294 will be found a portrait of Mr. Archibald MacKellar, the able head-gardener at Frogmore. Mr. MacKellar was appointed to his position from Sandringham in 1901, and it is due to his keen devotion to his work that the famous and historic gardens at Windsor have attained the high state of excellence that now prevails.



THE YOUNG GARDENERS' BOTHY IN THE ROYAL GARDENS, FROGMORE.

THE TOWN GARDEN.

SEASONABLE FLOWERS.—In the case of an ideal June-time such as has been so generally experienced this year, it is always well to note how the border flowering plants behave. I refer more particularly to those of the perennial class, and still more particularly to those at present in flower, for it is upon these that the greater strain of the moment is cast. It will quickly be seen that such abundantly-flowered subjects as the Pyrethrums, with their great though welcome sheaves of blossoms, promptly feel the burden and heat of the day, and the more promptly where the soil is light, sandy, or of a very stony nature. The Pyrethrum, too, is a plant with a voracious appetite, also a thirsty soul; hence frequent supplies of water will be to its advantage. The plant is a great rooter—not strictly a surface-rooting subject, though producing large numbers of root-fibres quite near. For these reasons the plant soon flags, and if we would have all the display of which such plants are capable, a generous watering must be given. Pæonies and Flag Irises do not suffer so quickly or in like degree, the roots of the former being too low down; still, a good watering is most desirable. All of these are now in great beauty and require attention in the direction indicated.

HYBRID COLUMBINES.—Under this head is now intended to be included all that fine modern race which have been evolved from Aquilegia cærulea, A. californica, A. Skinneri and A. chrysantha, the variously-coloured varieties of the group being admirably suited to town gardens. The older plants are now in delightful flower, as witness the very fine groups brought to the fortnightly meetings of the Royal Horticultural Society by Messrs. Dobbie and Co. and others. The flowering groups are so delightful in beds or borders, and the flowers so exquisitely beautiful in the cut state for home decoration, that none need hesitate to grow them. Above all, the plants respond to the ordinary town garden care, and because of their elegant grace and beauty should be freely grown. It is now a good time to plant seedlings, so that a free growth following a rich harvest of flowers may be assured another year. Plant the seedlings in groups of a dozen or a score, or give them a bed wholly to themselves, later planting Tufted Pansies or Daffodils between them.

SWEET PEAS.—The record heat has come as a surprise to all Sweet Pea-lovers, and the majority are amazed at the progress the plants have made and the top speed at which the flowers have been expanding. Given a continuance of such weather, not a few of the earlier plantings will soon be exhausted, the more so where light soils obtain. Happy to-day should, therefore, be the lot of those who do not plant on stereotyped lines, but, preferring the varied aspects of the garden, expect to have good flowers and plenty of them, come what may. Sweet Peas in slightly-shaded places will have a good opportunity this year. Gather all flowers as soon as they expand, taking them indoors or giving them to friends, anything rather than allowing them to flower and exhaust the plants by seeding. Water the plants preferably with sun-warmed water, but do not drive a hissing stream of ice-cold water at their feet and legs.

BEDDING PLANTS in beds will be greatly benefited by having the surface soil lightly moved once or twice each week, as nothing more quickly encourages growth. In these soils, where Stocks, Asters and Mignonette are to some extent predisposed to damp off at the "collar" or ground-level, this surface stirring should be followed by lime-dusting at the spot.

S. N. N.

GARDENING FOR BEGINNERS.

HOW TO STAKE BORDER CARNATIONS.

THE notes in the present instance refer exclusively to Carnations and Picotees grown in the open border. Staking border Carnations that are grown in pots under glass for exhibition is quite another matter, and may, therefore, be left for another occasion.

Careful observation of the plants, which should now be growing away freely in the hardy border or in beds specially devoted to them, cannot very well fail to indicate that the time has arrived when it is necessary to stake and tie all plants of the border Carnations and Picotees. Flower-stems have evolved quite freely of late, the warmer weather having encouraged their development in a most marked manner. As the flower-stems progress they must be supported in one way or another, otherwise the chances of obtaining a really satisfactory display will become less as the season advances. In a comparatively short time the buds will become heavy and will need to be kept under control, and this can only be brought about by securing the flower-stems in good time, so that their training may be quite in order. The earliest plants growing outdoors were ready for this attention a few weeks ago, but the present period should answer the needs of most plants very well. Every plant will need its flowering stake, and some plants will require quite a number of stakes. These latter vary in their character, and there are also numerous devices created to serve the purpose of the ordinary stake, each more or less meritorious. Any florist or nurseryman is usually able to supply, in bundles of fifty or one hundred, stakes suitable for staking Carnations. If these are purchased in the winter season, they may be painted an olive green colour, which tone does not offend the eye, and at the same time the paint acts as a preservative. If the position of the Carnation beds and borders is such that plants are exposed to the sun's influence during the greater part of the day and afforded some natural shelter from the more boisterous winds, the grower may safely anticipate the development of plants that will render a good account of themselves. To this end insert stakes forthwith for the support of the flower-stems that are now growing apace. Although mention has been made of ordinary green-painted garden stakes, it must not be imagined that these are the only kind of stakes that may be used. On the contrary, I have a distinct preference for Hazel stakes. These should be light and slender, as they are sufficiently strong to afford the necessary support to the growths and, at the same time, are not in the least aggressive, but harmonise with the surroundings. They may be purchased in big bundles quite cheaply, and I know of no other stakes so suitable. Generally speaking, the stakes should be from 2½ feet to 3 feet in length, but the former length will meet the requirements of most Carnations and Picotees. Should any reader have a difficulty in obtaining the Hazel stakes referred to, he may procure instead thin Bamboo canes. As a rule, these may be obtained in varying lengths, say, between 45 inches and 5 feet. If these Bamboo canes are cut in two, they should answer the purpose of Carnation stakes admirably, and always present a neat appearance; they also have the advantage of lasting for several years. A simple contrivance largely used by growers is a spiral stake made of wire. The spiral character of the wire enables the grower to adjust the growths without tying them, and this is no mean advantage. Growers using ordinary wooden stakes have recently had the work of tying simplified for them by Mr. William Sydenham of Melbourne, Derbyshire. He has invented what he describes as the "Time Saver." It is a small ring cut through at one point and made of pliable wire. This ring is opened and placed round both stake and flower-stem, and with a slight pressure the growth is maintained in position under control without tightly pressing on the stem of the growth. Quite a large number of plants may be dealt with in a little while, and the cost of the "Time Saver" is about 2d. per hundred.



1.—PLANT OF BORDER CARNATION BEFORE STAKING.



2.—THE SAME PLANT AFTER STAKING HAS BEEN DONE.

In Fig. 1 an ordinary border Carnation plant, on which there are several promising flower-stems that need staking and tying, is shown. Fig. 2 serves to show a simple and popular method of staking and tying. The same plant as is represented in Fig. 1 is again shown, but in this case the flower-stems have the support of light stakes, and each stem is lightly looped to the stake with raffia. The ties should be securely made, but they *must not* be tied *tightly*. It should be possible, when the tie is completed, to raise the loop-like tie, so that as the growth extends the loop may be raised to control it. Just once tying the Carnations will not suffice; it is a matter requiring continuous attention, so that damage to the flower-stems may be reduced to a minimum.

As will be seen in the illustration, the flower-stems are well spread out, thus allowing them ample room for subsequent development. Although the stakes appear prominent they will quickly be hidden by the stems and foliage.

D. B. CRANE

COLOURED PLATE

PLATE 1428.

THE NEW CARNATION LADY ALINGTON.

THE change that has taken place during recent years in the race of Carnations known in this country as Perpetual-flowering has been so rapid, that it is only those who are intimately and continuously in touch with the numerous varieties who can recognise fully the advance that has been made. It does not seem many years since the American varieties Mrs. T. W. Lawson, Enchantress and Governor Roosevelt first made their appearance in this country, and the colours of these were at that time regarded as almost, if not quite, perfect. Since then, however, hybridisers in this and other countries have been busy with the flowers, and new colours or shades of colours have appeared every year, foremost among these being the variety Lady Alington, shown in the accompanying coloured plate. Indeed, this Carnation may be regarded as unique, inasmuch as it is the only variety of old rose salmon colour at present in commerce. In the coloured plate this is shown with rather too much scarlet in the flowers. In addition to its colour this variety has a delightful fragrance, a feature that is too often absent in modern varieties of this section. The flowers are also large, of good substance and possess sound calyces, while the long, stout stems render it ideal for decorative purposes.

As a market variety Carnation Lady Alington has, we think, a bright future before it. Although the raisers, Messrs. Stuart Low and Co., Bush Hill Park, Enfield, Middlesex, have only about 200 plants of flowering size, they have been able to exhibit blooms of it at every fortnightly exhibition of the Royal Horticultural Society since the first meeting in October last, thus proving beyond doubt that it is very free and continuous flowering, the second crop of flowers coming very quickly after the first have been cut. As proof of its all-round merits we may mention that this Carnation has received an award of merit from the Royal Horticultural Society and a first-class certificate from the Perpetual Flowering Carnation Society. We are indebted to Messrs. Stuart Low and Co. for the flowers from which our coloured plate has been prepared.

THE FLOWER GARDEN.

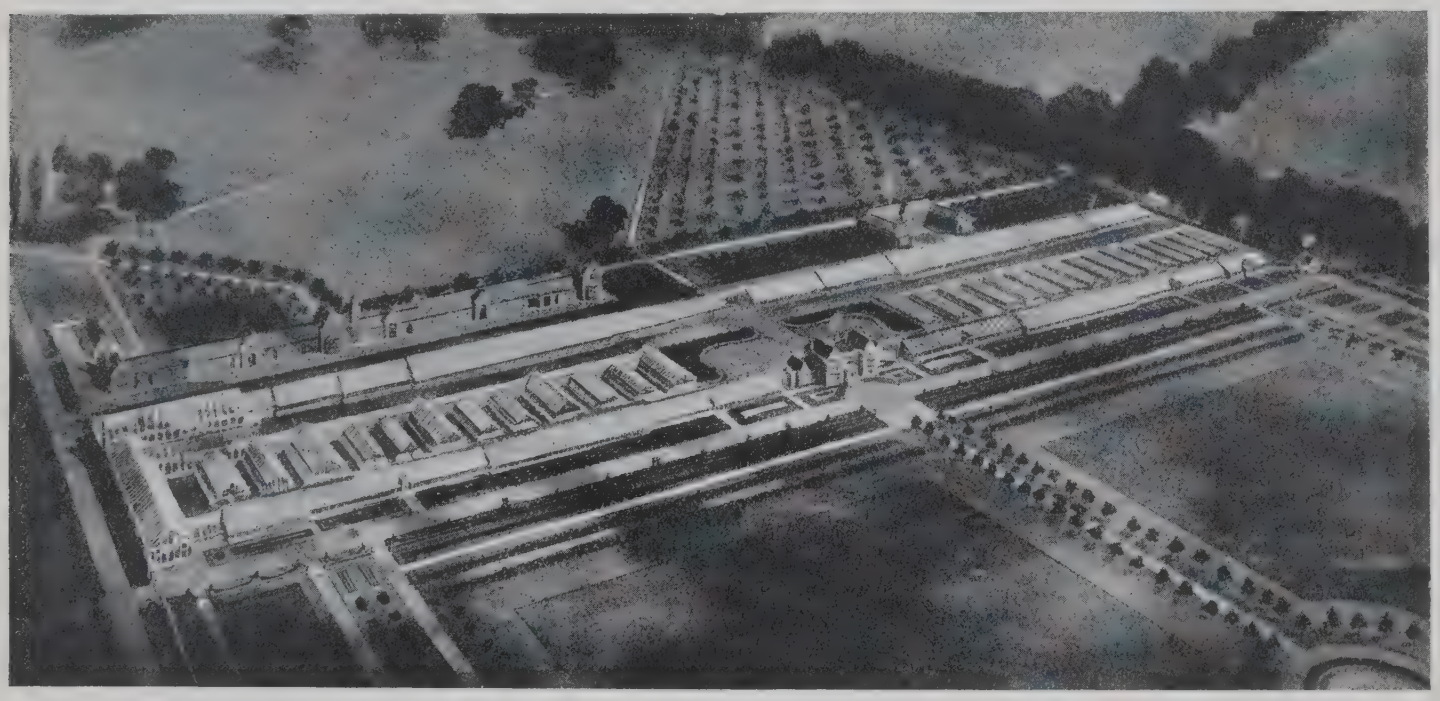
SWEET PEA NOTES.

EARLY PLANTING.—I have to make confession that "E. E. A.'s" kindly criticism (page 270) of my strictures on early planting have been curiously justified by events. The incessant hot, dry days and nights have rushed the plants along out of all knowledge, and it is quite possible that it will be those cut down after early planting which will yield the cup and medal flowers at many July exhibitions. However, my expressions of opinion were not directed against such sensible cultivators as "E. E. A.," but to those who will insist upon treating their Sweet Peas as though they were the tenderest of plants, closing the frames when the thermometer falls to about 40°, and thus inducing a growth that must suffer when it is put out, no matter whether it be early or late, though necessarily the dangers are greater in the former than in the latter event. Writers and speakers have long been hammering at the fact that Sweet Peas are hardy, and that it is only coddling that makes them tender and, therefore, susceptible to injury from cold after planting out. My critic does not adopt the usual methods of cultivation, but has followed a course which must yield a plant hardy enough to withstand any weather that we are likely to experience in this country. I congratulate him upon it, and should advise fellow-readers to give his system a fair trial next season. The results cannot fail to be perfectly satisfactory.

MULCHING.—The question as to the desirability of early mulching, whether Sweet Peas or any other plants are being grown, has often been discussed, and the consensus of opinion will probably be against rather than for the practice; but it is indisputable that surface coverings during the hot weather of summer are beneficial, and I should recommend those who have not yet material down to spread it at once. Good manure is the finest stuff to use; but if it is not procurable, the cultivator should press into service anything that can be got which will tend to keep the surface of the ground cool and moist and prevent the waste of plant food without stopping water and fresh air from penetrating. It is, first of all, necessary to see that the soil is moist to a depth of not less than 2 feet, applying water if required to ensure that condition; then permit the surface to become dry and immediately prick it over lightly with a fork. These things done, put on the covering, and it cannot fail to do good. When water has to be given later, it is preferable to draw back the mulching and to replace it when the task is finished; but this is a point upon which each cultivator will have to exercise his own judgment. In the event of heavy rains coming and beating down the mulch into a close mass, the grower must, as soon afterwards as can be made convenient, stir it with a fork, or the free admission of water and fresh air will be arrested.

DISBUDDING.—This term may be made applicable both to the removal of flower-buds and growths, because both will demand attention at this stage of progress. It is customary to have two or three sets of plants, one of which is encouraged to develop early flowers for cutting, and these are not, of course, interfered with in the production of blooms, because it is seldom possible early in the season to have too many to satisfy the wants of the ladies; others will be checked with a view to flowers for the early shows; and the third lot will be held back still longer for later exhibitions. With the promise of my own plants I am more than satisfied, and I must confess that it goes somewhat against the grain to have to keep picking off fours, not to mention the fives and sixes. However, in order to net as many prizes as possible it is bound to be done.

THE GREAT MONTH. — We are almost upon the threshold of the month of doughty deeds, and it is to be hoped that the keen fights will be as pure as the blossoms which win or lose. All being well, the "National" will be the finest show in the annals of the society, and that there will be thousands of splendid flowers at scores of exhibitions there can be no doubt. I am anxious to see whether there will be as many coarse blooms as we have seen of recent years, and I trust that when they are shown they will be sternly discouraged. A. B. ESSEX.



PLAN OF THE GLASS HOUSES AND SURROUNDINGS AT FROGMORE. (*See page* 296.)

GIANT POPPIES.

WHILE in no way disparaging the elegant and refined Shirley Poppies, or the species such as nudicaule, pilosum and its hybrids, I think that the gorgeous large-flowering subjects of the orientale and bracteatum groups are somewhat neglected in gardens. In early June there is nothing to compare with them. Planted three to five in a mass they are the most conspicuous objects at that period, and many are unaware of the range of colour which can be obtained by planting the newer varieties. In going over the collection grown here, I thought the notes might interest some readers and induce them to add a few more to their herbaceous borders; they are quite inexpensive, and are grown by all the leading hardy plant florists. The heights vary from 2 feet to 4 feet and the size of the flowers from 4 inches to 10 inches across the expanded blossoms, and the purity of their colouring and their diaphanous petals render them specially suitable for large vases when cut; but the stalks should always be split and be put in water as gathered, and some salt in the water will keep them fresh for three days. Only half-open flowers or split buds should be used, or they soon fall. In addition, their foliage is very handsome. If the smaller side shoots are taken off early with a heel, they soon root, and will flower the same autumn.

A short description of the best is appended: Brightness, orange yellow, large, 4 feet; bracteatum, enormous flowers, blood red, with claret black spots, 3 feet; b. Mahony, chocolate red, 3 feet; b. The Shot, deep crimson, heavily spotted, 3 feet; Blush Queen or Marguerite, very large, pale silvery blush, heavily spotted, 4 feet; Darkness, deep claret, no spots, 2 feet; Furstenkind, very large, silvery blush, edged white, 3 feet; Grenadier, rich orange scarlet, spotted, 2½ feet; Hesperia, vinous red, striking, 4 feet; Lady Roscoe, soft pale salmon, cupped, darker when first open, spotted, very free bloomer, 3 feet; Lovely, intense scarlet, petals crimped, deeply spotted, sturdy growth, supporting itself, 3 feet; Marie Studholme or Mrs. Notcutt, pale creamy salmon, very distinct and fine, 3 feet; Minerva, dull grey blush, distinct, 2½ feet; Mogul, glowing scarlet, waved petals, 4 feet; Mrs. Marsh, rich shining scarlet, striped with white, very beautiful, but apt to sport, 3 feet; Orientale, type, clear transparent orange red, 3 feet; Princess Ena, lovely clear salmon self, cupped flowers, early, 4 feet; Princess Victoria Louise, rosy salmon, silvery edge, dark spots, 3 feet; Queen Alexandra, clear salmon, small spots, fine, 3 feet; Rembrandt, cupped, light scarlet, fine, 4 feet; Silver Blick, large scarlet, cupped, early, distinct, as it has four white spots, 3 feet; Silver Queen, nearest to pure white, free, self, 2 feet; Tomtit, very free bloomer, cupped, clear orange scarlet, 2 feet; and Tulip, small, clear scarlet, 2½ feet. I should also mention the exquisite hybrid Mrs. Moon or Wolley-Dod's cross, of striking colour and elegant shape. The petals are shining and intense scarlet, 1½ feet.

Maidstone. GEORGE BUNYARD.

THE EDITOR'S TABLE.

SWEET PEAS FROM SCOTLAND.

Mr. C. Shaw, The Gardens, Boquhan, Kippen Station, Stirlingshire, sent on the 5th inst. a very beautiful collection of Sweet Peas, many of the blooms being of very high quality for so early in the year. Among the best were superb flowers of Mrs. C. W. Breadmore, Tom Bolton, Constance Oliver, King Edward Spencer and Masterpiece. Mr. Shaw also sent the following note: "I have much pleasure in sending you a few Sweet Peas cut from plants growing out of doors. The plants, which have been flowering for the past ten days, were sown on September 17, 1910, grown on all the winter in a cold frame, and planted out on April 18. These should be very useful for decorative work, although I do not think they will be of any use for exhibition. With me the seeds sown at the end of January are making by far the stronger growth, and will be in flower in about a fortnight, when I will forward you a sample. I read with much pleasure and interest the admirable articles by A. B. Essex, and hope he may be awarded the *Daily Mail* prize."

PYRETHRUMS AND PÆONIES FROM LANGPORT.

From Messrs. Kelway and Son, Langport, Somerset, we have received a large box of very beautiful Pyrethrums. When we carry our thoughts back a few years and compare the Pyrethrums that were then in cultivation with those we have before us at the time of writing, the wonderful improvements that have taken place are at once apparent. Among the varieties sent we are particularly well impressed with such double forms as Richesse (soft pink, very full flowers), Le Dante (pink, with cream centre) and Queen Alexandra (white, large flowers). Of the numerous singles there is none to equal James Kelway, a beautiful glowing crimson variety that has been exhibited a good deal recently. Other good singles are Snow White (a well-named variety), Lady Alfred Harmsworth (large mauve pink) and Langport Knight (deep rosy pink). As cut flowers such handsome specimens as these are unsurpassed for floral effect.

Messrs. Kelway and Son have for many years made a great speciality of Pæonies, and the many improvements which have been effected in these flowers during recent years have, in a very large measure, been brought about by their efforts. A great many acres are devoted to these flowers in the nurseries at Langport, and the receipt of a box of fragrant blooms reminds us of the beautiful sight to be witnessed there during the month of June. Among the double flowers sent, the following call for special mention: James Kelway, large, pure white; Beauty Queen, a charming blush shade; Lady Carrington, a beautiful, large-petalled flower of clear shell and silvery pink colour; Dr. Bonavia, similar to the following, but richer in hue; Sir T. J. Lipton, large, deep crimson; and Moonbeam, a beautiful creamy white flower. Single-flowered varieties that appealed to us were Nellie, large petals of shell pink colour, and The Queen, white. These single varieties are very charming with their central boss of golden stamens. In addition to the double and single flowers, Messrs. Kelway have in recent years devoted much time to a sort of intermediate race, wherein the stamens have taken on a petaloid form, yet remaining sufficiently narrow to be easily distinguishable from the petals proper. Two charming varieties of these were included, viz., Lady Mayoress, deep rose pink petals and cream and rose filaments; and Dorothy Daniels, blush petals and cream filaments.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

TREES AND SHRUBS.

A barren shrub (*Mrs. Guy Jackson*).—Your plant of Skimmia japonica does not require protection in the winter, for it is quite hardy; neither will it do any good to place it in a pot in your greenhouse, for it will not bear fruits any better. The reason of its not fruiting is that it is a female plant, and you have no male plant near. When you bought it the flowers had evidently been fertilised beforehand. To get it to fruit you must either obtain a male-flowered specimen and plant it near by, or obtain male flowers and dust the pollen on to the stigmas of the flowers on your plant.

Azara microphylla (*E. F. C.*).—It will not be advisable to cut your Azara microphylla back much, but you may check the upward growth by removing 1 foot or 18 inches of the upper parts of the branches. This may be done at once. If you cut it back into hard wood, you may kill the plant.

THE GREENHOUSE.

Lobster Plant (*L. C.*).—The name of the Lobster Plant or Parrot's Bill is Clianthus puniceus a native of New Zealand. It may be propagated by cuttings of the half-ripened shoots taken at the present time and inserted firmly in pots of sandy soil. The cuttings must then be placed in a close propagating-frame and shaded from the sun till rooted. A gentle heat will greatly assist the formation of roots; but the cuttings must not be kept too warm, otherwise red spider is particularly liable to attack the foliage. When rooted the young plants must be potted singly, and they will then have time to become established before winter. At that season they need the protection of a greenhouse, for this Clianthus is hardy only in favoured districts, such as in the extreme South-West of this country. In taking cuttings, shoots of medium vigour are much preferable to the very weak or very strong ones.

Tree Carnation cuttings (*N. D.*).—About the worst place you could have put them in. Instead, place the pots in a box of any sort without a lid, and put the box on a stage low down near the front of the vinery. Place some pieces of loose glass over the top of the box over the cuttings and keep them as close as you can. Syringe the cuttings very lightly morning and afternoon, and shade in the middle of the day. Be careful that the soil is pressed firmly to the cuttings.

Manure for Japanese tree (*Burton*).—Any of the standard manures advertised in THE GARDEN, such as Thomson's Vine and Plant Manure and Clay's Fertilizer, would do for your Japanese tree, but they must not be used stronger than is recommended with the instructions supplied with them. Weak cow-manure water and soot-water may, however, be given, and they have the advantage of being safe things to use, even when dealt with by inexperienced people.

Hydrangeas in tubs and pots (*M. G.*).—Lack of nourishment is in all probability the cause of your Hydrangeas flowering in such an unsatisfactory manner, for these plants are liberal feeders, and when they have been for two or three years in the same pot or tub, need a good deal of nourishment. If there is sufficient space to allow of top-dressing, we should advise you to top-dress them with a mixture of loam, bone-meal and well-decayed manure. If the receptacles are filled with roots, such top-dressing may not be easily carried out, in which case the necessary stimulant must be supplied in the shape of liquid manure or some of the highly-concentrated plant foods now so much used. After flowering, any weak and exhausted wood may be cut out, the object being to encourage the firm, stout shoots which produce the finest heads of blossoms.

FRUIT GARDEN.

Injury to Peach leaves (*E. J.*).—The Peach leaves are suffering from the disease known as Peach curl. This disease is due to the attack of the fungus Exoascus deformans. It is usually attributed to exposure to cold winds, draughts and so on by those who have only observed without making a special study of the disease. The disease could not occur without the presence of the fungus. Cold winds alone would not produce it. When plants are exposed to cold winds and draughts, however, the check they receive lays them open to the attack of the fungus, and this has given rise to the erroneous impression that the bad weather conditions are the real responsible agents in producing the disease. It is clear, therefore, that every possible means should be adopted to prevent checks to growth through cold winds and draughts, whether the trees are planted against a wall or in a house. The important thing to act upon is that once the tree is attacked, it is not at all likely that the particular branch will be cured. The diseased portion will, in all probability, produce diseased foliage in ensuing years, and will with equal certainty fail to fruit properly. All diseased shoots should, therefore, be removed and promptly burned, and the trees should be sprayed with ammoniacal copper carbonate, several times recently referred to in our columns. With the removal of diseased portions, protection from checks due to adverse weather conditions, and attention to spraying, there should be no difficulty in growing Peaches free from disease; but unless

all are attended to, there will undoubtedly be a recurrence of the trouble in future years.

MISCELLANEOUS.

Names of plants.—*A. N.*—1, Rose Mrs. R. G. Sharman Crawford; 2, Rose Waltham Climber No. 3.——*G. Harvey Simmonds.*—Raphiolepis ovata.——*Mrs. M.*—Phlomis fruticosa and Rosa rugosa.——*Mrs. Mills.*—Hesperis matronalis flore pleno and Polygonum baldschuanicum.——*Lydbury.*—1, Iris graminea; 2, I. sibirica.——*R. Armstrong.*—Acer dasycarpum. A. platanoides, Æsculus flava and Quercus rubra.——*T. H. O. Pease.*—1, Saxifraga cæspitosa; 2, Sedum glaucum; 3, Lithospermum purpureo-cærulum; 4, Campanula portenschlagiana; 5, Sedum spathulifolium; 6, Genista sagittalis.——*Colonel Smythe.*—The yellow Rose is Rêve d'Or, and the rose-coloured variety we believe to be an old Tea named Souvenir de Rambaux.

SOCIETIES.

YORK GALA FLOWER SHOW.

THE fifty-third annual show held in connection with York Gala opened on Wednesday, the 14th inst., and continued open until Friday evening, the 16th inst. Ominous clouds swept over the sky during the forenoon, but these cleared away towards midday and the sun shone brilliantly, while a strong wind was blowing. It was gratifying to the organisers to announce that the exhibits of flowers, plants, fruits and vegetables probably created a record. They numbered 550 as compared with 500 last year, 469 the previous year, and 478 in 1906. The tent accommodation was extended this year to accommodate the additional exhibits and to allow more freedom for staging. The whole of the arrangements were excellent, and reflected the greatest credit upon the floral committee. The quality of the exhibits was considered higher than last year. Roses and cut flowers were good, also the fruits. The specimen pot plants were up to the average.

COMPETITIVE CLASSES.—POT PLANTS.

The premier class, for a group of miscellaneous plants, was, as usual, well contested. The first prize was easily won by J. Pickersgill, Esq. (gardener, Mr. J. Donoghue). Specimen Crotons were a notable feature, and variegated Dracænas, Clerodendron Fallax, Caladiums, rambling Roses, Humea elegans, &c., were intermingled with artistic effect. The centre was occupied with an arch made of Virgin Cork and decorated with Orchids. The feature of this stand was the light and graceful arrangement of the plants. The second prize went to Mr. W. A. Holmes, Chesterfield, who used Crotons, Dracæna sanderiana, Kalanchoes, &c., with a groundwork of Caladiums, Verbena Miss Willmott, Coleus, Liriope elegans, Ferns, &c. Messrs. R. Simpson and Son, Selby, were third, using Crotons, Hydrangeas, Aralia gracilis, Bougainvilleas, Orchids, Bamboos, Anthuriums, &c. The fourth and fifth prizes went respectively to Messrs. Mansell and Hatcher and Mr. Gledhill Cottam.

In a similar class, for smaller groups, there was also keen competition, the premier honours being won by Mr. W. A. Holmes, who made a nice display with Crotons, rambling Roses, variegated Dracænas, Kalanchoes, Verbena Miss Willmott, &c. J. Pickersgill, Esq., was a good second, with Crotons and Caladiums as outstanding features. The third prize went to William Vause, Esq., Leamington, who included Odontoglossums, Bougainvilleas, tuberous Begonias, Crotons, Caladiums, &c. The fourth prize went to Messrs. R. Simpson and Son, Selby. This exhibit was somewhat dull for the want of more flowering plants.

Only two competed in the class for a collection of stove and greenhouse plants, but both made meritorious exhibits. First, Messrs. Cypher and Sons; second, Mr. W. Vause. Anthuriums, Bougainvilleas, Ericas, Ixoras and Clerodendrons were a few of the genera represented.

The class for a single specimen stove plant was well filled, Mr. W. Vause being first with a fine plant of Bougainvillea glabra, Messrs. J. Cypher and Son second with Ixora Williamsii, and Captain Walker, York (gardener, Mr. H. W. Clark), third.

In the single specimen greenhouse plant class eight entries were received, and the competition was keen. First, Messrs. J. Cypher and Son with a well-grown plant of Erica cavendishiana; second, Mr. W. Vause; and third, W. F. Crowther, Esq., York.

The class for three ornamental fine foliage or variegated plants brought three competitors. Messrs. Cypher and Son were first, Mr. W. Vause second and Messrs. R. Simpson and Son third.

In the class for three Crotons no first prize was awarded, the second and third being won respectively by Messrs. R. Simpson and Son and Mr. W. Vause.

Single Croton class: No first award, Messrs. R. Simpson and Son second and Mr. W. Vause third.

Four competitors staged exhibits in the open class for twenty alpine and herbaceous plants, and were placed in the following order: First, Mr. W. Pybus, Leeds; second, Mr. S. Pickering; and third, Mr. J. Nicholson, York.

In the hardy Fern class well-grown specimens were to be seen. First, Mr. J. Archer, York; second, Mr. J. T. Heppell, York; and third, Messrs. R. Simpson and Son.

For eight plants suitable for dinner-table decoration, Mr. W. Vause was first, Mr. W. A. Holmes second, Mr. W. D. Clifferge third and F. H. Ward, Esq., fourth.

The Calceolaria group class again brought forward well-grown plants, the prizes being awarded as follows: First, H. E. Leetham, Esq., York; second, Dr. MacDonald, York; and third, the Rev. Canon Argles.

In the amateurs' Calceolaria class seven groups were staged. First honours went to P. Stancliffe, Esq.; second, H. E. Leetham, Esq.; and third, the Rev. Canon Argles.

The group of Calceolarias arranged for effect was especially striking. J. Rowntree, Esq., was first, with Messrs. P. Stancliffe and S. Leetham second and third.

The groups of tuberous Begonias arranged for effect brought forth admiration, and the competition was good. First, Miss Barstow, Garrow Hill; second, S. Leetham, Esq.; and third, Captain Walker.

Seven exhibits were staged in the class for eight distinct Begonias, and all were remarkably well-grown plants. First, J. Rowntree, Esq.; second, T. Winn, Esq., York; and third, Colonel H. C. King.

The groups of Gloxinias were again greatly admired; the first honours being secured by Mrs. Craven, York; second and third, J. Rowntree, Esq., and Captain Walker.

For eight Gloxinias Mrs. Whitehead was first, Mrs. Craven second and T. F. Wood, Esq., third.

The groups of Carnations in bloom were again a very popular feature and called forth admiration, competition being close. The Duke of Newcastle was placed first, J. Pickersgill, Esq., second and W. Langstaffe, Esq., third. Healthy plants of Malmaisons formed the chief part of the exhibits.

The collections of Roses in bloom in pots arranged for effect were beautiful examples, and contained many of the leading varieties. J. E. Skaife, Esq., was first, W. Langstaffe, Esq., second and W. Todd, Esq., third.

The smaller groups of pot Roses arranged with decorative plants also brought good competition, J. E. Skaife, Esq., again being first, with W. Langstaffe, Esq., and H. Pybus, Esq., second and third.

The Pelargonium classes were well filled, the following being the principal prize-winners—Groups: First, H. E. Leetham, Esq., York; second, Messrs. Godfrey and Son, Exmouth; third, Captain Walker. Six distinct varieties: First, W. F. Crowther, Esq. Twelve nosegay or hybrid: First, H. Pybus, Esq.; second, J. Sunley, Esq. Six Zonal nosegay: First, H. Pybus, Esq.; second, J. Sunley, Esq.; third, J. W. Clarke, Esq. Three Ivy-leaved Pelargoniums: First, W. F. Crowther, Esq.; second, H. Pybus, Esq.; third, J. F. Clark, Esq.

ROSES.

The whole of these classes were remarkably well contested and the quality of the blooms staged was good, this, no doubt, being partly due to the fine weather recently experienced. It is seldom that such a fine collection is seen together.

In the premier open class for seventy-two single blooms, not less than thirty-six varieties, Messrs. B. R. Cant and Sons, Colchester, were first, with Messrs. R. Harkness and Co. a good second, Messrs. D. Prior and Sons third, and Mr. G. Prince, Longworth, fourth.

The class for forty-eight Roses was won by Messrs. Harkness and Co., Messrs. J. Burrell and Co. being second, Mr. G. Prince third and Messrs. D. Prior and Sons fourth.

Mr. H. Drew secured first place in the class for thirty-six blooms, with Messrs. R. Harkness and Co. second, Messrs. W. and J. Brown third and Messrs. Perkins and Sons fourth.

Messrs. B. Cant and Sons won the class for twenty-four distinct varieties, Messrs. R. Harkness and Co. and Messrs. D. Prior and Son being placed second and third respectively.

Mr. H. Drew, Longworth, won the class for eighteen distinct kinds, with Messrs. G. and W. H. Burch second and Mr. E. J. Hicks third.

For the best stand of yellow and white varieties there were no fewer than eleven aspirants. First honours went to Mr. H. Drew; second, Messrs. Perkins and Sons; third, Messrs. D. Prior and Sons.

In the amateurs' class for eighteen distinct kinds there was also good competition, T. Park, Esq., Bedale, being first, W. Hutchinson, Esq., second, F. A. George, Esq., third and G. W. Reader, Esq., fourth.

For twelve distinct kinds W. Hutchinson, Esq., was first, T. Park, Esq., second, F. A. George, Esq., third and G. W. Reader, Esq., fourth.

HARDY CUT FLOWERS.

The collection of hardy cut flowers brought forth a number of exhibitors, the premier position going to Mr. F. M. Bradley, with Messrs. G. Gibson and Co., Bedale, second, Messrs. Harkness and Co., Bedale, third and Messrs. William Artindale and Sons fourth.

In the class for twenty-four bunches of hardy cut flowers there were eight entries, and the specimens staged were excellent. First, Messrs. G. Longster and Sons, Malton; a close second, Messrs. Harkness and Co., Bedale; third, Messrs. G. Gibson and Co.; fourth, Mr. J. B. Hutchinson, Kirbymoorside.

The amateurs' class for twelve bunches of hardy cut flowers was keenly contested, the Marquess of Northampton being first, Mr. W. Hutchinson second, Mr. F. Bouskell, Nuneaton, third and Mr. A. Sunley fourth.

POT PLANTS.—ORCHIDS.

For a table of Orchids, Messrs. Mansell and Hatcher and Messrs. Cypher and Sons were placed equal firsts. Both exhibits were of exceptional merit, and represented well-grown plants. In the first-named collection the following were noted: Phalænopsis rimestadtiana, Renanthera imschootiana (used as a groundwork for Odontoglossum crispum), Cattleya gigas, Brassia verrucosa, Miltonias, &c. Messrs. Cypher had Miltonia vexillarium, Cymbidium lowianum, Thunia Marshallii and T. wiganianum (very good), Lælia tenebrosa, Cattleya callosum Sanderæ and a nice piece of Oncidium divaricatum.

For ten Orchids, Messrs. Cypher were first with the following specimens: Cattleya Mendelii, Lælio-Cattleya canhamiana, Oncidium macranthum, Cattleya gigas, Lælia umbrosa, Lælio-Cattleya Aphrodite, Cattleya Mossiæ splendens, Epidendrum prismatocarpum and Lælio-Cattleya canhamiana magnifica. W. P. Burkinshaw, Esq. (gardener, Mr. J. T. Barker), was second, the specimens of Miltonia St. André and Cattleya Mossiæ alba being especially good. The third and fourth prizes were gained respectively by Mr. James Sunley and Mr. W. Vause.

In the class for six Orchids, Messrs. Cypher again obtained first place, with W. P. Burkinshaw, Esq., second and Mr. W. Vause fourth.

For three Orchids, Messrs. Cypher and Sons were first, W. P. Burkinshaw, Esq., second and J. Sunley, Esq., third.

In the single specimen Orchid class for new or rare Orchids, W. P. Burkinshaw, Esq., was first with a fine piece of Cattleya Warneri alba, and Messrs. Cypher and Sons were second with Lælio-Cattleya Aphrodite purpurea.

In the amateurs' class for three Orchids, W. P. Burkinshaw, Esq., was first with very creditable specimens of Cattleya Mossiæ arnoldiana and Lælio-Cattleya Aphrodite alba, Colonel H. C. King (gardener, Mr. S. Linfoot) second and A. Sunley, Esq., third.

For the single Orchid specimen (amateurs), W. P. Burkinshaw, Esq., was first, A. Sunley, Esq., second, Mrs. Guy third and J. Rowntree, Esq., fourth. The competition in this class was exceptionally good.

FRUITS AND VEGETABLES.

Unfortunately, the class for a decorated table of fruit, which usually is one of the most important features of the show, was but poorly contested, there being only two exhibits. These, however, were of high standard, the first prize being gained by the Duke of Portland (gardener, Mr. G. Gibson), who obtained 110 points out of a possible 136. Three epergnes of pink Carnations were the main feature, together with several small vases of similar flowers, and Selaginella was used for tracing. Grapes were represented by Black Hamburgh and Buckland Sweetwater, Nectarines Early Rivers', Peaches Bellegarde, Apples Lady Sudeley, Melons Seedling, Cherries Early Rivers', also Plums, Figs, &c. The Marquess of Northampton (gardener, Mr. A. R. Searle) was second with 97 points. His epergnes and vases were filled with Odontoglossum crispum and Cattleyas. Asparagus and Selaginella were used as greenery. Some of the chief kinds of fruit were Strawberries Waterloo and British Queen, Peach Dymond, Fig Brown Turkey, Melon Seedling and Grapes Foster's Seedling and Black Hamburgh.

There were six exhibits staged for the collection of ten kinds of fruit, the premier award going to the Duke of Newcastle (gardener, Mr. S. Barker). The following fruits were of high quality and called for mention: Grapes Black Hamburgh and Buckland Sweetwater, Cherries White Heart, Green Gage Early Transparent, Apple Lady Sudeley, Peach Royal George, Nectarine Early Rivers' and Strawberry Royal Sovereign. Many of these fruits were also excellent in the second prize collection from J. Brennand, Esq., Thirsk (gardener, Mr. J. E. Hathaway). W. D. Cliff, Esq., Leeds (gardener, Mr. W. N. Hague), was a good third.

There were also six entrants for the collection of six kinds of fruit, the Duke of Portland being first with Peach Hale's Early, Melon Royal Sovereign, Fig Brown Turkey, Grapes Black Hamburgh and Foster's Seedling and Nectarines Early Rivers'. Baron de Forest (gardener, Mr. J. C. McPherson) was a close second with Strawberries, Peaches, Nectarine, Melons and Grapes; and J. Brennand, Esq., was third.

In the collection of four kinds there were eight exhibits staged, and placed in the following order: First, the Duke of Portland with Grape Black Hamburgh, Nectarine Lord Napier, Peach Hale's Early and Melon Superlative; second, Baron de Forest with Grapes, Melons, Peach Dymond and Nectarine Early Rivers'; third, the Marquess of Northampton; fourth, J. Brennand, Esq.

Keen competition also prevailed between the eight exhibitors in the class for six Peaches. The Marquess of Ripon (gardener, Mr. E. Thomas) was first with Hale's Early, the Duke of Portland second with the same variety, and the Marquess of Northampton and the Duke of Newcastle were placed in the sequence named.

For honours with six Nectarines there were six aspirants, the following being the order of merit: First, the Duke of Portland with Lord Napier; second, the Duke of Newcastle with Early Rivers'; third, S. D. Shafto, Esq. (gardener, Mr. A. Woods); fourth, Colonel Harrison Broadley, Esq., M.P. (gardener, Mr. C. Lawton).

In the class for a scarlet-fleshed Melon, J. Brennand, Esq., was first with a seedling, the Marquess of Northampton second with Sutton's Seedling, and A. S. Lawson, Esq. (gardener, Mr. A. Nicholson) third.

For a green-fleshed Melon eleven entries were received, the first, second and third prizes being won in the following order: Lieutenant-General Pakenham, C.B. (gardener, Mr. H. Dew), Lord Elphinstone (gardener, Mr. D. Kidd) and A. S. Lawson, Esq. (gardener, Mr. A. Nicholson).

The white-fleshed Melon class brought ten competitors. W. S. Gray, Esq. (gardener, Mr. T. Pattison) was first, the Marquess of Northampton second and A. S. Lawson, Esq., third.

In the class for two bunches of white Grapes, any variety, Baron de Forest was first with Muscat of Alexandria, W. D. Cliff, Esq., second with Buckland Sweetwater, and the Duke of Portland third with the same variety.

For black Grapes there was keen competition, the first prize being secured with a fine bunch of Black Hamburgh by the Duke of Newcastle; second, Lady Hawke (gardener, Mr. H. S. Bray) with the same variety; third, the Right Hon. Lady Beaumont (gardener, Mr. W. Nicholls).

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE PROPAGATION OF SHRUBS.

DURING the next two months a great many hardy shrubs may be increased by means of cuttings, providing the propagator has the advantage of a close propagating case or frame, for soft or semi-ripe cuttings stand a far greater chance of success if they are kept in a close atmosphere than if placed in a more airy situation. As a rule, a general compost may be made up for cuttings, other than those which belong to the Erica family, by mixing two parts of good fibrous loam, one part of peat or leaf-mould, and one part of silver sand together and passing it through an inch-meshed sieve. This may then be made up moderately firm in well-drained 5-inch or 6-inch pots, in boxes or in beds, according to the number of plants required, and be finished off with a coating of silver sand. Cuttings 4 inches or 5 inches long may be made and inserted firmly in the soil, finishing off by giving a good watering. Shrubs such as Forsythias, Diervillas, Spiræas and Philadelphuses root readily from quite soft shoots, better results often being obtained in June or early July than would be possible in August, on account of the difference in the condition of the wood. Cuttings of these shrubs placed in gentle bottom-heat have been known to root in fourteen days, and to have been planted in nursery borders in less than a month from the time the cuttings were taken. On the other hand, if such cuttings were left in the store pots until the following spring, they would become stunted; therefore, if they cannot be planted out, an endeavour should be made to pot them singly as soon as rooted.

Other shrubs, however, such as several of the Brooms, the dwarf Prunuses, Olearias, Viburnums and dwarf Lilacs, root more readily from semi-ripe wood; hence it is more desirable to delay the insertion of the cuttings until the end of July or early August than to insert them in June. Such cuttings may often be left in the store pots all the winter without injury, but they must be kept in a cold frame. Many of these cuttings made from half-ripe wood root in from four to six weeks, but there are others which take longer, and some, such as Hollies or Tree Ivies, may not form roots before spring, especially if the wood has been a little too firm before the cuttings were made. Cuttings of many shrubs are assisted by a little artificial heat, especially if it is applied from below; but there are others which do no good if they are placed in a warm case. Berberis stenophylla, B. Darwinii and the double-flowered Gorse are cases in point. To succeed with them it is necessary to insert the cuttings in sandy soil in a cold frame or under a hand-light out of doors. Needless to say, such cuttings must be kept close and, like other cuttings, shaded from bright sun until they are rooted. If inserted in August they must be left undisturbed until the following spring or early summer.

Such shrubs as Laurels, Aucubas, Cupressus lawsoniana and Golden Yews may be rooted in a cold frame, though they also succeed in a little warmth. Aucubas are very accommodating, for quite large pieces inserted in a warm and moist frame form roots quickly. Care must be taken with the watering of cuttings, for they must not be over-watered nor yet be allowed to become dry. A good plan to follow is to remove the coverings from the frames for an hour or so in the morning to allow any moisture to dry from the foliage, for superfluous moisture of this sort sometimes causes the cuttings to damp off.

Cuttings of Ericaceous plants require to be inserted in sandy peat, which, as a rule, should be made much firmer than the soil for other kinds of shrubs. Erica cuttings are usually made about 1 inch or 1¼ inches in length, and are inserted about one-third of their depth in the compost. In trimming away the lower leaves, care must be taken not to injure the bark, for if the bark is torn the cuttings do not root. They must be inserted firmly and be kept quite close, either in a slightly warm case or under a hand-light out of doors. When inserted in pots it is a good plan to cover each pot with a bell-glass. Many of the weaker-growing kinds of Rhododendrons may be rooted from cuttings taken during June and July; but it is no use trying to increase the large-growing sorts from cuttings. Hardy Azaleas sometimes root well, but they are not to be depended on; therefore it is better to resort to layering or some other means of increase.

Climbing Roses, as a rule, root readily at this time of year, and the same may be said of the Tea and Hybrid Tea varieties, but many of the species and the rugosa varieties are more difficult to manage; therefore there is no cause for anxiety should these kinds fail to give such good

results as sorts like Dorothy Perkins and Crimson Rambler. With many of these Roses, however, it is the same as with many shrubs. Successful propagation depends largely on experience, and though early attempts may result in comparative failure, later efforts will most probably meet with complete success. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 3.—Mansfield Horticultural Society's Meeting

July 4.—Royal Horticultural Society's Great Summer Show at Olympia, Kensington, of Flowers, Fruits and Garden Sundries (three days). Gloucestershire Rose and Sweet Pea Society's Show at Gloucester. Scottish Horticultural Association's Meeting. Harrow and District Rose Show.

July 5.—Dartford Flower Show. Hanley Horticultural Fête (two days). Chelmsford and District Sweet Pea and Rose Show.

July 7.—National Rose Society's Show at the Botanic Gardens, Regent's Park.

July 8.—Kidderminster Show.

The National Sweet Pea Society's floral committee. At a meeting of the general committee of the above society, held at the Hotel Windsor on the evening of June 19, the following were elected to the floral committee under the new rules: Commander Humpherys, R.N., and Messrs. T. Stevenson, T. Jones, R. Bolton, A. Ireland, Herbert Smith, S. B. Dicks, A. Malcolm and George Herbert. Outings were arranged to the trials at Guildford and to Messrs. R. H. Bath, Limited, Wisbech, notice of which will be sent to members in due course.

Roses for the Queen.—On the eve of Coronation Day, Her Majesty the Queen graciously accepted from the National Rose Society a basket of Roses. This was mainly composed of varieties of golden, copper or bronze tints, such as Rayon d'Or, Juliet, Lady Hillingdon, Goldfinch, Lady Pirrie and Lyon being used with beautiful effect. These were mainly sent by the respective raisers of the varieties, the work of designing the basket and arranging the flowers being entrusted to Mr R. F. Felton, head of the well-known florist firm of Messrs. Felton and Sons, Hanover Square. The basket, as will be seen in the accompanying illustration, was of a most artistic design, and was about 6 feet high. The foliage of Rosa rubrifolia that was freely used harmonised well with the delicate tints of the new Roses. A basket of Roses from the society was also accepted by Queen Alexandra, who has always taken a keen interest in the work of the society.



THE BASKET OF ROSES ACCEPTED BY QUEEN MARY FROM THE NATIONAL ROSE SOCIETY.

The origin of Darwin Tulips.—Since the beautiful Darwin Tulips were first put on the market by the well-known firm of Krelage of Haarlem, their origin has been a mystery to most of those who grow and admire these noble flowers. In an interesting book which has just been published by Mr. E. H. Krelage to celebrate the centenary of the Bloemhof Nurseries, which were established by the present owner's grandfather in 1811, it is stated that the origin of the strain was a small collection secured by the late Mr. Krelage from an amateur in the North of France. This, we believe, has been known to a few Tulip enthusiasts for some time, but it would be of interest to many if more comprehensive details could be furnished. The book in question, which really gives a historical sketch of Messrs. Krelage's business, has been prepared principally for the staff and employés, but it contains a great deal of information that will, we think, be of interest to others.

East Anglian Horticultural Club.—The club this year is fortunate in having permission to hold its summer outing at the Royal Gardens, Sandringham, Thursday, August 31, being the date fixed. Mr. Thomas Cook, the head-gardener, has promised to do all he can to make the visit interesting, and no doubt a large number of members will be present. The secretary of the club, Mr. W. L. Wallis, 12, Royal Arcade, Norwich, will be pleased to furnish any further particulars.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Silene acaulis as a moraine plant.—In the most interesting article by Mr. Reginald A. Malby on Silene acaulis and Gentiana verna as moraine plants, which appears on page 285, he emphasises the importance of full sun accompanied by moisture for many alpine plants. The moisture he obtained by an ingenious arrangement of a miniature basin, filled with water daily, which is conveyed to the plants by means of a lamp-wick. This reminded me of another and an easy method, which was suggested to me by a friend, of supplying the necessary water. This is to sink a flower-pot into the ground above a plant, stop up the hole with a cork and fill the pot with water. This slowly oozes out through the pot and keeps the roots moist. A pot measuring 3 inches only needs replenishing once a week, even in hot weather, and a stone, preferably a mossy one, placed on top completely hides it from view. A little plant here of Gentiana verna treated in this manner had twenty blooms in the spring. I cannot, however, endorse Mr. Malby's opinion that the Star Gentian seems to be disliked by slugs. Essex slugs may not care for it, but their brothers of the Lake District show a most unwelcome predilection for its flowers. — HELEN M. ENGLAND, *High Wray, Ambleside.*

Affiliation of allotment associations.—I should like to thank Mr. J. C. Wadd for his kind remarks about the Agricultural Organisation Society. He is perfectly right in saying that this society can help, and has materially helped, small holding and allotment associations; and in my opinion such societies are indeed short-sighted if they cannot see the manifest advantages of affiliation to the Agricultural Organisation Society. These advantages will now be all the greater, since the Development Commissioners have just offered material assistance to the Agricultural Organisation Society on certain terms. There is no doubt but that the Agricultural Organisation Society is particularly anxious to help the smaller men, and now the society will be in a better position than ever to do this. Let me give you an instance of how the society helped small holders and allotment-holders in a village where I lived till a short time ago. Manure was hard to buy locally, and often it was necessary to get it from London. There were, however, general complaints of short weight. The railway company said they could do nothing to remedy the state of things. We affiliated ourselves to the Agricultural Organisation Society. A lady, among others, and I, the parson, joined. We ordered trucks of manure to test the matter and had the manure weighed. My truck was a ton short; the lady's

was a ton and a-half short out of a total of fourteen tons. But the railway manure merchant charged for the full weight and the railway people ditto for carrying what never came. We both refused to pay. The railway company peremptorily demanded payment. We wrote to the Agricultural Organisation Society. Their capable secretary, Mr. Nugent Harris, took the matter up, interviewed the railway officials and made searching enquiries. The result was that we did not pay. This to us was a small matter, but the result to the small holders and allotment-holders was considerable. The last truck that I ordered was over weight, pure manure, no brickbats, and not watered as formerly. The other day I heard that never in the history of the village had so much manure been used, nor had the small people ever had such satisfactory loads. This is partly due to the local society which we formed and its present secretary; but a great deal of credit is due to the Agricultural Organisation Society. Moreover, this is only one instance of many that might be given, including the starting of a credit society. I must not take up more of your space, but I thought that the actual experience of one who is a keen gardener, a member of the committee of the Agricultural Organisation Society and a hearty well-wisher to small holdings might be of some interest.—ROLLO MEYER. [This correspondence must now cease.—ED.]

Birds and the dry weather. — Will you allow me to suggest to the bird-lovers among your readers that during the summer season they should make a point of periodically visiting their fruit-nets, and so ensure against such of our little songsters as may have been caught there dying a slow death by hunger and thirst? It is quite a common thing to find the dead body of a bird entangled in the meshes of a Strawberry-net, and one does not like to think of the lingering death by which the little thief has atoned for his very natural greediness. Will you also let me take this opportunity of reminding their friends of the difficulties our birds experience during very dry weather in finding food and water, many of them suffering keenly from the want of it, and to beg that their tin of water and allowance of "scraps" may be given them through summer droughts as well as during winter frosts?—Z.

Sophora grandiflora.—Visitors to the flower show which was held in connection with the Bath and West and Southern Counties Agricultural Show at Cardiff a few weeks ago were very much impressed with a finely-flowered branch of this handsome New Zealand shrub, which was exhibited in the collection of plants sent by Messrs. R. Veitch and Sons of Exeter. People who are acquainted with the gardens of the South-West Counties will no doubt recollect seeing large bushes of this species growing either against walls or in the open ground, and covered with golden blossoms 2 inches or more long from the end of May until early July. Such an example is in the possession of Messrs. Veitch, and it would be difficult to imagine anything more effective. Scientists sink the name of grandiflora into a synonym of S. tetraptera; but so far as horticulturists are concerned, the two are kept distinct, grandiflora being considered a better plant and more floriferous than tetraptera. S. grandiflora may be expected to grow anywhere between 6 feet and 12 feet in height, forming a rather loose bush, with small pinnate leaves. In the neighbourhood of London it lives outdoors against a wall, but does not flower; while it is not, as a rule, satisfactory when grown in pots. It thrives in loamy soil, and gives little trouble in those gardens where the climate is mild enough for this and similar New Zealand shrubs.—D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANT-HOUSES.

CHRYSANTHEMUMS. — The potting of these must be brought to a close as early as possible, so that the plants may be arranged in their summer quarters. A position which is somewhat sheltered from wind should be selected, but it must be exposed to the sun during the greater part of the day. The site must be well drained, so that heavy rains may pass quickly away. The plants should be put out in rows about 6 feet apart and secured to wires, which must be supported by stout posts. For a week or two after potting much care is needed when applying water. No manures of any kind will be needed till the new soil is full of roots; even then it must be given only in small proportions, increasing it in strength as the season advances. During hot weather they must be thoroughly syringed morning and afternoon. An occasional spraying with an insecticide will keep the plants clean.

Pot Roses.—These may now be overhauled and repotted if necessary. They require a substantial compost, which may consist of three parts loam, one part manure from an old spent Mushroom-bed, with a little finely-broken brick rubble or crushed bones. Half plunge the pots in an exposed position and apply water with care till the roots are again active.

Mignonette.—This is always appreciated in the dwelling-house; therefore a batch should be sown now in pots to follow the plants flowering outdoors.

Campanula pyramidalis.—Now that these are throwing up their flower-spikes, they must be well attended to as regards watering and feeding. Should there be room for a little soil on the surface of the pots, this will be of considerable benefit to the flowers. Do not allow them to become crowded, or the leaves at the base of the plants will fall. A sowing may be made now for producing plants for next season.

FRUIT-HOUSES.

Late Grapes.—The final thinning of all late Grapes must now be done. A thorough knowledge of the character of the different varieties must be acquired by the operator in order to do this work properly. Most late Grapes require to be liberally thinned, so that the berries do not unduly crowd each other when they are ripe. The interior of the bunches must especially be well thinned, but sufficient berries must be left on the shoulders, or the bunches will have a drooping appearance when finished. When all the thinning is completed, lightly fork up the surface of the borders. Give them a good mulch of rich farmyard manure; then thoroughly wash this in. Keep all lateral growths regularly removed when there is sufficient foliage to cover the trellis. Keep a sharp look-out for red spider, and should this appear on the leaves, sponge with weak soft soapy water.

KITCHEN GARDEN.

Tomatoes.—With outdoor Tomatoes timely attention must be given to the removal of side growths. Do not feed the plants with manure till a good set of fruits is secured, after which they will need every encouragement to mature. About the middle of the month a sowing may be made for the late autumn and winter supply under glass.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

GREENHOUSE PLANTS.

As soon as the Malmaison Carnations pass out of flower they should be removed from the houses to cold frames, or outside where they can have full exposure to the sun for a short time before proceeding to layer the shoots. If a portion of the stock is layered now and some a little later, a longer season of blooming can be obtained. In layering, an unheated frame should be used, the plants turned out of the pots and planted on their sides with just sufficient soil about them to cover the balls. Only the strongest and best-ripened growths should be selected. Cut away all the others. Peg down the layers in the usual way in a compost of light loam, leaf-mould and sand. One good watering overhead to settle the soil about the layers should be sufficient. Keep the sashes close and partly shaded for a short time afterwards, admitting air and light when it is seen that the foliage will stand it. Malmaison Carnations can also be successfully propagated from cuttings if these are taken from well-matured growths and put in singly in small pots and the latter plunged in a frame on a mild hot-bed. Under proper conditions they will have filled the pots with roots in a fortnight to three weeks, after which air must be given freely to prepare them for potting up into flowering pots. Where it is desired to pot on plants for making specimens, the balls of soil should be thoroughly soaked before repotting into pots of a sufficient size to carry them over next season's flowering period. We find, however, that young plants furnish the finest blooms for cutting, and have recently dispensed with the growing of two year old plants, as well as the practice of potting the layers singly into 4-inch or 5-inch pots and afterwards repotting into their flowering pots. When well rooted, the layers are potted up into 6-inch and 7-inch pots, using three plants to each pot, in which they are allowed to remain until they flower. The only precautions necessary are the correct sizing of the young plants, so that all three in one pot will flower simultaneously, and very careful watering. When potting up it will be seen that numbers of the rooted layers are shooting up for early flower; these should not be discarded, as they will furnish some nice blooms if transferred to a warm house early in spring, after which they should be thrown out, as it is not advisable to pot on or propagate a Malmaison Carnation that has at any time been subjected to heat.

Azaleas.—Plants that have made their growth should now be turned outdoors, plunging them in a bed of ashes with a piece of slate under each pot. Syringe them freely on bright afternoons, and give a little liquid manure if the pots are filled with roots.

Chrysanthemums for winter decoration are now making good growth, and timely attention to staking and tying should be given, as well as some temporary fence on which to support them against high winds. An open and sunny situation is necessary for the production of well-matured growths, without which fine blooms on stiff stalks cannot be obtained. Keep a close watch for green fly or other insect pests, and if earwigs prove troublesome, they should be trapped.

Cyclamen, Primulas, Cinerarias and other subjects for winter and spring flowering now in cold frames should be kept fully ventilated and syringed regularly in hot, dry weather, and when growth is well advanced, the lights may be removed altogether on warm nights to admit the dew, replacing them again in the morning and shading from bright sunshine. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FLOWER GARDEN.

SWEET PEAS ON THE EXHIBITION STAGE.

I HAVE for a long time thought that the usual way of exhibiting cut Sweet Peas is far from perfect. There are too many of them in one bunch. In my humble opinion some of the "backwoodsmen" must go. The almost hereditary right of the flower-stalks to be practically the only occupants of the bunch should be severely limited, and stems with tendrils and leaves should be admitted side by side as representatives of the plant as a whole, and as being most helpful for the work that the vase has to perform.

The crux of the whole question turns upon what this is. Those who agree with me will probably be willing to consider the advisability of trying a change — not too hurriedly and all at once, but, like the cautious bather whom we so frequently see depicted entering the briny deep with the utmost caution—a toe—a foot—no more at first. So just one or two classes to try what it is like next year. This is all I ask. On the other hand, those who do not agree with me in my estimate of the purpose for which cut blooms are gathered together at exhibitions will naturally be reluctant to make the experiment, and will need to be converted from the fallacy of the present system as tending to best materialise their ideals of what a show should do.

I expect we are to all intents and purposes at one in what this is. Surely it is to exhibit to an admiring and critical public the beauty of colour and form, the vigour and substance of good cultivation, the diversity of tints, the poise and placing of the individual blooms, the refinement and elegance of a well-made and well-proportioned flower, and last, but far from being the least important, the giving their varied colours their own proper foil or set-off, the natural green of the plant itself. Grasses or Gypsophila are not to be reckoned in the same category, in "my foolish opinion." In the present system, I submit, the bunches are too overcrowded to allow very much of the individuality of the variety to be seen. It is as if a blob of colour was the acme of perfection, and as if all else were secondary. I am very fond of blobs in their place. When I played cricket I always loved to see a few on our opponents' score-sheet, but I never cared to see any on our own. I would like a *few* classes for blobs in every schedule as being the best practical imitation of a colour mass in a garden under the restricted and artificial surroundings of a tent or hall, but I object when all of them are of this character. I like to study and absorb something of the particular individual charm of each separate variety, and because of this I would welcome a new departure in staging Sweet Peas. What I may call my ideal may be seen in Mr. Robert Bolton's list for the present year. He there gives three illustrations, one of Tom Bolton, one of Clara Curtis and one of Mrs. Hardcastle Sykes. In each three or four sprays are lightly arranged with a few bits of Sweet Pea foliage (see illustration below). Could anything be better? Could anything show more clearly the characteristics and beauty of a variety? Has not the time come when this extraordinarily popular annual may be said to have been admitted into the charmed circle of "florists' flowers," wherein individualism is supreme (overdone, their detractors might remark)?

At all events, without arguing either for or against this proposition, would not the exhibition itself gain if such a change were made? One walks round the "National," and it is only after considerable difficulty that one sees the excellence of Thomas Stevenson's or Thomas Jones' magnificent blooms. Much of their individual beauty is lost in the mass, and I for one regret to have it so. Still, I would say, have some old-fashioned big bunches by all means in all shows; we cannot all get to the trials. It is there that the only proper test of a variety as being a good or bad garden plant can be made, and it is this discrimination between sorts that I hold should be the chief business of our floral committee, and so, naturally, had I been present at the last general meeting, my sympathies would have gone out to those who urged that the more visits this committee could pay to the trials, the sounder would be their judgment. Those who show may be trusted to look after themselves, and probably they have seen as much of the new varieties as the committee have. It is the public who want guidance—the public who do not show, but who, after all, are the great supports of this delightful hobby, inasmuch as they have come to think that no garden is a garden without either a good row or some clumps of this, everyone's flower.

JOSEPH JACOB.



SWEET PEAS ARRANGED TO SHOW THE BEST FEATURES OF EACH FLOWER.

PROPAGATION OF THE CUSHION SAXIFRAGAS.

COMPARED with the mossy and encrusted sections, the propagation of the Kabschia or Cushion Saxifragas is a somewhat slow process, but the pleasure of possessing large masses of these early-flowering gems will amply repay the little care and patience necessary to obtain them. Propagation may be carried out any time between March and September, but the earlier months of this period are the best, as the young plants have then more time to get established before winter.

Saxifraga burseriana and its varieties, S. Boydii, S. Cherry Trees, S. Elizabethæ, S. diapensioides, S. Kotschyii, S. Paulinæ, S. rocheliana, S. scardica, S. Boryii and similar kinds, may be increased as follows: Take a plant from the rock garden or from a pot and shake away all the soil from the roots. Strip off the rosettes that have not flowered (those that have flowered will die, and are therefore useless) and carefully remove the lower leaves with a sharp knife. Insert the cuttings in pots or pans of pure silver sand made as firm as possible. Stand the pots in a cold frame, which must be kept close and moist, and shade during the brightest part of the day.

In the course of eight or ten weeks the cuttings will have made good balls of roots and will be ready for potting. For this purpose a good gritty compost is required, and should consist of two parts fibrous loam chopped or broken very small, one part leaf-mould and one part silver sand, with a liberal addition of mortar rubbish or crushed oyster-shells, charcoal and potsherds broken small. As the growth of the Cushion Saxifragas is slow during the first year, care must be taken not to overpot them, and 2½-inch pots will be quite large enough. In potting make the soil very firm, and plunge the plants in sand or fine ashes in a cold frame. Keep close for about two weeks; then gradually harden off and, finally, remove the lights altogether. The young plants will be ready to go out on the rock garden after they have been about twelve months in the pots, or, if it is desired to continue growing them in pots, they may be moved into those of a larger size, 3½-inch pots being the most suitable.

A few of the more robust-growing species of this section, such as S. apiculata, S. oppositifolia and its varieties, and S. sancta, may be increased by dividing the plants as soon as they finish flowering and putting them in their permanent quarters straight away.

Stevenage. C. DAVIES.

HARDY WATER LILIES.

A LAKE or pond which is well furnished with Water Lilies and other aquatics is always an interesting feature, particularly when the place has natural surroundings and is large enough to allow of spacious unbroken stretches of water being kept. The small pond, however, which is filled to overflowing can be made exceedingly interesting, especially if the margins are fringed with water or marsh loving plants. A pond amid the natural surroundings of woodland or park scenery with a broken margin is much easier to make attractive than are some of the water gardens one sometimes sees arranged in public parks and villa gardens, where the margins are of cement or bricks and there is little chance of clothing them properly.

Even under the worst conditions, however, Water Lilies, and aquatic plants generally, have a peculiar charm, especially in hot weather, for their freshness is then very pronounced, contrasted as it is with the wilting leaves of many other plants. It is surprising what charming effects some garden-lovers with cramped surroundings obtain. A pretty feature was noted recently in a small villa garden, where a number of tubs had been sunk in the lawn. These tubs were connected by a miniature brook, and each tub contained a Water Lily, while the brook was made the home of water-loving plants, such as Iris sibirica and I. Kæmpferi. The last fifteen or twenty years has seen a vast change in the Water Lily. Prior to that time one seldom saw any other kind than the common white of our streams and ponds. Now, however, all that is altered, and there is a wonderful array of reds, yellows, pinks and whites, while now and then one finds the blue-flowered Nymphæa stellata giving first-rate results in the open air. As a rule, though, some provision has had to be made for assisting it, either by rearing a plant indoors and placing it out after any danger of cold weather has passed, or by planting it in a position where the water is slightly heated by artificial means. Londoners have been charmed for many years past by the pretty little Lily pond in the Arboretum, near the Queen's Cottage, at Kew. Situated in a hollow, two sides of which are clothed with rambling Roses, Berberis stenophylla and other shrubs, it is of natural appearance and fully exposed to sun, while sheltered from cold winds. Into it the warm water from the exhaust pipes of the pumping-engines is allowed to flow. This makes it possible to grow not only the blue-flowered N. stellata, but also several other varieties, usually grown under glass.

The accompanying illustration of a fine, well-flowered plant of Nymphæa Marliacea rosea is sufficient to show how freely it blossoms. Other varieties which may be pointed out as desirable to grow are alba candidissima, white; William Gladstone or gladstoneana, white; tuberosa flavescens, yellow; Marliacea chromatella, yellow; M. flammea, red; William Falconer, red; fulva, red; robinsoniana, red; odorata rosea, rose; William Dooge, red; and Laydekeri fulgens, red. The planting of Water Lilies does not need to cause any difficulties. Providing a pond can be emptied, mounds of soil can be made on which to plant the Lilies. If the water cannot be run out, the Lilies may be planted in baskets of soil and dropped into their respective positions. D.

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN JULY.

ONLY in exceptional cases will it be necessary to heat the pipes during the daytime in July. It is quite true that in some seasons we experience very cold nights and wet weather in July, and in such circumstances a little fire-heat, judiciously employed, does much good. I am, however, a firm believer in growing Grape Vines as hardily as possible, that is, without any undue forcing. I once took charge of a long range of vineries, and the Vines in the houses had been hard-forced for many years, with the result that a demand for new Vines had been made, as the existing ones were not very satisfactory. Every afternoon, no matter how hot the weather was, the houses were closed early, the Vines heavily sprayed with clear water from an engine, and kept in the high temperature and very close, moist atmosphere until the following morning. No wonder the leaves resembled tissue paper and the crops were failing. I had these houses well ventilated every day, closed late in the afternoon in summer-time, and only the floors were damped. At 10 o'clock every night the top ventilators were opened about 1 inch, and very early the next morning the amount of ventilation was considerably increased. This treatment resulted in strong, leathery leaves being grown and well-coloured bunches of Grapes, and the Vines soon regained their normal state of health. During the month of July amateurs should do all they can to make the wood and leaves of their Vines hard; then the Grapes will colour well and keep sound a long time.

Scalding of the Berries.—If Grape cultivators will pay close attention to the foregoing remarks they will have fewer scalded berries in the bunches than would be the case if ventilation was not free. Some varieties scald more readily than others, notably Muscat of Alexandria, Madresfield Court, Lady Downe's Seedling and Gros Colman; but the berries of every variety will scald if the Vines are mismanaged during the stoning period. The stoning of the berries means the hardening of the stones in them, and while this process is going on the berries do not swell much. If moisture condenses on the berries in the night, and the sun's rays reach them the following morning while so saturated, the side of the berry heated the most is scalded. Sometimes only one berry will be scalded, at others several each morning, and so the bunch is quickly spoiled, as the affected berries are useless. The main thing to do is to get the berries dry and a nice circulation of air through the house before the morning sun shines on it; but there must be no cold draughts passing through the structure. Directly the berries commence to swell again, after the stoning process is complete, there is not as much danger of the berries being scalded as while the swelling is arrested; but, of course, they will scald at any time up to the ripening stage in adverse circumstances.

When the berries change colour and begin to ripen (as the earlier varieties will during this month) more air is needed, in order to complete the ripening of the bunches. Front air must be admitted at this stage somewhat freely on fine days, and it must not be entirely shut out during the night-time, though reduced in volume. A dry, buoyant atmosphere must be maintained, as it is conducive to good colour in the berries. The black varieties put on that dense blue-black colour so desirable, and the white ones the rich amber so much coveted by Grape enthusiasts. At this stage the weather must be closely watched, as it may be necessary to have the pipes warm during the night and also on dull, showery days. Although it will be advisable to keep the ventilators open, they must not be as wide as when the weather is bright and dry.

Feeding.—While the stones are hardening in the berries it is good policy to give clear water only, but directly the first tinge of colour can be seen in the berries, or even earlier, when the latter first commence to soften, feeding may be very freely carried out. Good concentrated artificial manures may be given according to the directions accompanying them, and also clear liquid manure. Where the latter must be made, the cultivator should place 1 peck of manure in 20 gallons of water in a tub, and at the end of two days use one-third of the liquid to two-thirds of clear water. The manure must be put in a coarse bag. Thoroughly saturate the border once every week until the berries are nearly all coloured. B.



A BEAUTIFUL HARDY WATER LILY: NYMPHÆA MARLIACEA ROSEA.

FRUIT NOTES.

LAYERING STRAWBERRIES.—The best growers of Strawberries will have this work well in hand before these lines are printed, and the earliest runners will be on their way to excellent rooting. There cannot be the slightest doubt that early propagation pays with this fruit, because the plants can become established in their permanent positions much sooner, and therefore build up a finer capacity for fruiting in the following season. Those who have not started should either fill small pots with light soil and plunge them between the plants or incorporate with the ordinary soil some flaky leaf-mould or manure and at once put down the selected runners. Some growers pin their faith upon the first runner, others on the second; but there is practically nothing to choose as far as results are concerned. A small stone will keep each runner in place, and rooting will be encouraged by pleasant moistness of the soil. It is not desirable to take more than one runner from each strig, and none ought to be taken from barren plants, as the chances are that they will be barren too.

THINNING FRUIT.—The thinning out of the crops of all the large fruits must have intelligent attention, the particular variety, the condition and age of the tree all having consideration. Obviously, some trees will bring more specimens to perfection than will others, so that it becomes absolutely imperative to deal with each one on its merits as an individual. Having in view the continued prosperity and health of the trees, it is always wise to err on the side of over-thinning than the reverse, since this means that after finishing the fruits the tree has still abundance of strength and energy to plump up the buds for the following season's crop. It is perfecting the seeds that is so exhaustive, not putting on the outer covering of flesh.

BUDDING.—During this month and August the stocks and buds will be in the best state for insertion, and those who desire to try their skill should sharpen their knife until it will cut like a razor, and have some soft tying material ready at hand when the great time arrives. The secret of success lies in being able to judge when the bud and the stock are in perfect condition. One settles the former point by the manner in which the thin slice of wood left in the sheath comes away; it should not fly out and it should not hang tenaciously, for the former indicates over-ripeness and the latter under-ripeness. Find the happy medium and all will be well. In regard to the stock, the bark must rise freely to enable the bud to be inserted, but it must not instantly curl back when the haft of the knife is put beneath it to raise it up. Have the cut on the stock as nearly as possible the same length as the bud sheath, and in tying in exercise the utmost care not to come across the bud and destroy it.

PREPARING STRAWBERRY-BEDS.—This important task must be put in hand as ground falls vacant, and it must be clearly understood that it is quite impossible to cultivate the soil too deeply or too thoroughly if the bed is to bring complete satisfaction to its owner. In the addition of manure to the second spit, err on the side of generosity rather than the reverse, because the life of the plant is not to exceed three years. At any rate, in the vast majority of instances it will not do so, and the merrier it can be made the better. At least two, and preferably three, weeks should elapse between the cultivation of the soil and the planting out of the rooted runners, as this will allow for settlement and sweetening; but in the lightest soils it will even then be wise to firmly tread it down before the work is done.

TREES ON WALLS.—When fruit is grown on walls, the cultivator can look forward with confidence to the fact that from the middle of February until the end of the following November there will be some detail or another demanding daily attention, and may rest assured that, if these things are not promptly dealt with, the results will not be as good as they should be. At this time of the year hosing to suppress insect pests and heavy watering at the roots will be necessary, with light surface moving and mulching to follow, while thinning must be followed up with the utmost judgment and according to discretion.

RASPBERRIES.—Fruits of these are now ripening fast, and due precautions must be taken to protect them from birds. In many instances this has, no doubt, already been done. I know of nothing better than old fish netting, placed well above and around the plants; but even this is not always a sure preventive, because if the least opening is left a bird is almost certain to find it and gain access to the fruit thereby. If the weather is very hot and dry, Raspberries greatly appreciate copious waterings at this season.

FRUIT-GROWER.



A BEAUTIFUL GRAFT HYBRID: CRATÆGO-MESPILUS ASNIERESII.

TREES AND SHRUBS.

INTERESTING GRAFT HYBRIDS.

(CRATÆGO-MESPILUS.)

As the name Cratægo-mespilus suggests, the trees included in this genus are of bigeneric origin. More than ordinary interest is attached to them, however, from the fact that two of the trees are graft hybrids between the common Hawthorn, Cratægus Oxyacantha, and the Medlar, Mespilus germanica. We have already in gardens a fairly well-known graft hybrid, Laburnum Adamii, the parents of which are the common Laburnum, L. vulgaris, and the Purple Broom, Cytisus purpureus. The graft hybrid between the Hawthorn and the Medlar originated in the garden of M. Dardar at Bronvaux, near Metz, and was first noticed in 1894. A common Medlar grafted on a Hawthorn stock developed, just below the point of union between the stock and scion two growths, which it was noticed were intermediate in character between the Medlar and the Thorn. These two branches have given rise to the two trees named respectively C.-m. Dardari and C.-m. Asnièresii.

Cratægo-mespilus Dardari, when fully grown, promises to become a shapely specimen of moderate size, and, judging from the freedom with which it flowers, will prove both an interesting and ornamental subject. In habit the branches are inclined to be pendulous. The leaves resemble those of the Medlar, although not so large; they are downy on both surfaces, and thorns occur fairly frequently on the smaller branches, a character inherited from the Cratægus. The flowers are in corymbs, six, eight or ten together, white, changing with age to a rose tint, 1½ inches across; the fruit resembles a Medlar, but is smaller. The flowering season is the end of May and early in June. On a tree flowering at Kew this year there were three distinct types of growth and flower. Most of it, naturally, was C.-m. Dardari, but there were also shoots with typical Medlar leaves and the solitary flowers, and also a fair-sized branch of C.-m. Asnièresii, the other graft hybrid.

Cratægo-mespilus Asnièresii in habit resembles a large-flowered Cratægus of semi-pendulous growth. A few spines are noticeable, and there are two kinds of leaves, some entire and the remainder deeply lobed, especially those on the vigorous young shoots showing the Hawthorn parentage. The leaves on both surfaces are very downy. The flowers are in clusters like those of the Hawthorn, but larger, averaging three-quarters of an inch across, six to twelve, occasionally more, in a corymb, white, tinted rose with age. The fruit is oblong in shape, downy, brown in colour and about the size of the Hawthorn.

The flowering season is the second half of May, which is about ten days in advance of C.-m. Dardari. Both trees are offered in several English catalogues; but instead of the name Asnièresii, the second tree is listed as M. Jules D'Asnières.

A. O.

WISTARIA CHINENSIS.

ALTHOUGH many new plants suitable for covering walls have been introduced during recent years, this beautiful plant still holds its own as quite one of the best hardy climbers. It has been in cultivation now for nearly a hundred years, and there are many fine specimens to be seen on old buildings. The plant illustrated is growing on Museum No. 2 at Kew, and covers the wall for nearly 100 feet. While in flower it is a beautiful sight with its numerous racemes of mauve-coloured flowers, forming quite a curtain of bloom. Wistarias are not at all particular in their requirements, although their condition may be improved by good soil, deeply cultivated. They are also seen at their best on a wall facing south, for they delight in plenty of sunshine at all times. Walls, however, are not necessary for the successful cultivation of this plant, which may also be grown on pergolas, trellis-work, or even in the form of bushes. For the latter purpose it is necessary to keep it pruned back to the required size. When the space available has been covered by the plant, all shoots should be pruned back annually during the summer months to within a few eyes of the base of the growth. This will cause the plant to produce spurs on which are borne the bunches of flowers. Of this Wistaria there is a double-flowered form as well as a white one in cultivation.

There are five distinct species known, one, W. frutescens, being found in America, while the others come from China and Japan. The one having the longest inflorescence is W. multijuga, a native of China. It is only of recent years that it has become generally known, although it is said to be the one so extensively grown in Japanese tea-gardens. Under favourable conditions the racemes often reach 3 feet in length. The length of the raceme is the chief point of distinction between this species and W. chinensis, but the flowers are not set so closely together. It is certainly a most elegant plant, and a worthy companion to the older and better-known species. W. multijuga var. alba is a pure white form. Both flower some three weeks later than W. chinensis, and require the same conditions for successful culture. The long racemes of flowers are seen to better advantage when the stems are trained on an overhanging trellis-work. When grown in this manner the racemes hang clear of the stems and foliage. The other three species are of less value as garden plants. W. I.



THE OLD WISTARIA CHINENSIS AT KEW.

INTERESTING SHRUBS IN SEASON.

ABUTILON VITIFOLIUM is one of the most attractive shrubs in flower at the time of writing. We have plants 12 feet to 14 feet high and a mass of flowers, the colour of these being pale lilac. The flowers are large and bell-shaped. The plant is, moreover, a real good grower, is perfectly hardy and inexpensive, and will grow in any good garden soil. The trouble is, if it be trouble, that it grows away too freely. The flowers last very well in water when branches are cut off. A. vexillarium is now in fine condition, both as regards flowers and foliage, on the wall. Many persons are not aware that this beautiful climber is so hardy. Dendromecon rigidum is a fine, strong-growing shrub with handsome, glaucous foliage. The flowers are of a deep golden yellow and Poppy-like in appearance. They are produced freely. The plant should be put on a sunny wall where it can be baked, as it were; then it will do splendidly. We put ours several times in places where they would only grow in summer and died in winter; but now, at the foot of a south wall, the plants flourish amazingly and resist the frost to a marked degree.

Empetrum nigrum is a Heathy-looking plant, and has flowered freely this season. It is a very fine subject for dot or corner plants, as it will put up with a little rough treatment with impunity. After the flowers a black fruit is formed. Adenocarpus anagyrus is a fine and comparatively rare plant seldom seen. It is extremely free when planted against a fence or wall. It grows fairly rapidly and flowers in quite a young state. The blossoms are bright golden yellow and the plants are easily raised from seed. It will grow in ordinary garden soil. Callistemon floribundus and the variety album are flowering very profusely on an outside wall, and are both pretty and quaint. They need plenty of water in these warm positions. The red and white should be planted together, when a very charming effect is produced. They like fairly light soil, which should be well drained. Leptospermum bullatum is now a subject of interest and great beauty, with pretty foliage and starry white flowers. It is a fine wall plant, but a difficult one to propagate; hence it is rarely seen. It can, however, be propagated by layering, but it takes a long time even in this manner. Magnolia Watsonii has been extra good this season; it probably likes the tropical heat we have been having. The flowers have been of rare substance and are delightfully fragrant. W. A. COOK.

The Gardens, Leonardslee, Sussex

THE ROSE GARDEN.

THE AUSTRIAN COPPER BRIAR.

HOW is it that this Rose, grown in England as far back as 1596 by John Gerard, is not found in every garden in the land? Why, if it were introduced to-day as a novelty everyone would be after it. What a glorious tone of colour is imparted by a well-flowered bush left entirely unpruned! I have it now (May 29) in full bloom, the buds unfolding almost hourly. How I wish it were more lasting. Strangely, a plant close by of the wonderful new Rose of M. Pernet-Ducher's raising, Rayon d'Or, unfolded a bud at the same time, and there is a marvellous resemblance of the colouring in the outer petals and also the inside of the flower to the Copper Austrian Briar. I do not know whether this colouring of Rayon d'Or is to be attributed to climatic conditions, and I shall watch it with interest for other blooms to unfold. But the Austrian Copper is a real gem for any garden, and it is so easily grown. My bushes when planted were the usual long-shooted, one year old specimens supplied by most growers, the shoots being about 3 feet to 4 feet long. I planted them and just removed the tops of growths, nothing more, and that is all the pruning the bushes have had. Each year they have given a larger number of blooms. Soon after the April blizzard this year I thought I should have to prune back, but I am glad I did not, for the plants seem to have come through the ordeal safely. Many ramblers were also in similar state, but I refrained from cutting back, and now to-day they are showing beautifully for a fine display later on. These Briar Roses are most delightful for early flowering. The single yellow Austrian, Persian Yellow, the Double Yellow, Harrisonii (a paler yellow, also

double) and Una (Messrs. Paul and Sons' exquisite Cheshunt-raised Rose) are all worthy of a place in the most select garden. Then there are the sweet Penzance Briars, which will provide us with a blaze of colour and give forth their delicious fragrance after every shower and also in early morn or late evening.

TWO FINE EXHIBITION ROSES.

THIS hot season is suiting the Tea Roses admirably, and I quite expect to see some marvellous examples, especially at the early shows. One variety is certain to be in evidence, and that is William R. Smith. It is a flower of wonderful staying power. Looking over the Rose-beds of a noted Tea Rose-grower recently, I tried to recall some Rose to which William R. Smith bore a resemblance, and I thought there was a likeness both to Souvenir d'Elise Vardon and to the old variety Homère, only, of course, it would be a very much glorified form of the latter. I had on June 6 some splendid specimens of William R. Smith, and, judging from my plants, I predict for it a very prosperous season. It is a splendid grower, reminiscent of Maman Cochet, but of rather better habit, as it does not spread out quite so much.

The other variety I desire to note is Medea. A specimen before me at the time of writing is simply glorious in its fulness and the colour of a deep Mme. Hoste. Then this, too, is a first-rate grower, absolutely distinct, but suggestive of Amazone in its wood and habit. Both of these Roses are sure to be well shown this year.

What a difference there is, as regards vigorous growth, when Roses are given a good deep root-run and also plenty of food preserves! I was surprised to see plants of these Roses in my friend's garden attain such wonderful size, and I thought he had been feeding them with liquid manure. But no, they had had very little. I learnt, however, that much of his success was due to the annual digging in of good farmyard manure. A trench is taken out down the alleys between the rows of plants, and good, well-rotted manure trodden in as firmly as possible. Here was the secret, for the Roses had good supplies of nourishing food to draw on, which was only too evident from the specimen blooms seen. Another thing I have found out is that Tea Roses are equally as fond of clay soil as Hybrid Perpetuals, providing it is well broken up. It always seems to me rather ridiculous when experts advise various soils for Roses that are budded on one common stock, *i.e.*, the seedling Briar, for surely we do not alter the nature of the stock when we bud the various tribes upon it; therefore, if we are assured that the Briar revels in clay, by all means grow our Tea Roses in clay. P.

ROSE TEA RAMBLER AS A STANDARD.

THE suitability of many of the large-flowered rambling Roses for growing in standard form is as yet but little understood. That many of them are well adapted for such purpose a few keen growers realise only too well. For forming large heads of free-flowering wood such Roses are ideal, and the accompanying illustration of that charming variety Tea Rambler, growing in a suburban garden, will serve to indicate, to some extent, the possibilities of these vigorous-growing Roses. The present seems to have been a particularly good season for this Rose, as in many parts of the country I have noticed it flowering exceptionally well. Q.



A STANDARD PLANT OF ROSE TEA RAMBLER IN A TOWN GARDEN.

THE TOWN GARDEN.

INDOOR CARNATIONS.—One of the surprises to the ordinary amateur in plant-growing is the rapidity with which all insect pests increase if given certain favourable conditions. Just now one has in mind the red spider, which during times of great heat multiplies at an alarming rate, and the more when the plants are grown under glass and the house kept much too dry. The dry, arid condition of a greenhouse is an abomination to plant-life generally, while favouring the increase and spread of the pest, and to avoid these twain working as they do unmistakably to the undermining of a plant's health should be the aim of all. The great heat experienced in the early part of June was most favourable to red spider, which can only be kept at bay by frequent syringing of the plants and abundant atmospheric moisture in the house generally.

DETECTING THE PEST.—Too frequently the pest has got a firm footing before its presence is discovered, though even the beginner may already have wondered why the flower-buds have lost their clear glaucous colour and assumed a grey tone devoid of lustre and freshness. By the use of a small lens it will be seen that the pest is present in its hundreds, and where this is so, radical measures must be taken at once. In such a case the syringe and cold water, useful enough in the past to keep the pest at bay, will not suffice now to eradicate it or bring about its destruction. At the same time, the ordinary fumigants so serviceable for killing green fly will hardly suffice.

THE BEST AND CHEAPEST INSECTICIDE is a soft soap emulsion to which when cool has been added half a wineglassful of Nicoticide to three gallons of soft water, or a good insecticide may be purchased from the makers of the article just named. Quite the cheapest and most homely of insecticides is that made of salt and water, a handful of salt to about three gallons of water. This is best when used early, and as a preventive measure requires some beating. It is not advised to use it when the flowers are expanding, nor should it at any time be applied with force, the object being to so lightly spray the plants that the latter are wetted thoroughly, the spray settling on the leaves and stems being thus enabled to do its work. One of the best syringes for such work is that known as the "Pine Spray," which as a spray diffuser, capable of reaching all parts of a plant, is excellent. The mist-like character of the spray is exactly what is required; hence the use of the syringe in question is most desirable.

SWEET VIOLETS.—These are also prone to early attacks from this pest, and particularly so after a long spell of dry, hot weather. In their case clear soot-water should be freely syringed on to the plants, and the latter may even be watered with a similar mixture to render their leaves distasteful to the insect. The soot, too, in this case, while acting as a deterrent, is also a fertiliser of no mean order, and, being cheap, should be constantly borne in mind. In spraying the Violets, or indeed any insect-infested plant, it is desirable to wet all its parts, the enemy being as abundant on the under as on the upper surfaces of the leaves.

CHINA ASTERS.—These valuable late summer and early autumn flowering annuals are also worthy of attention now, and for similar reasons. Frequently, and in times of great heat and dryness more particularly, it has been observed that the heart leaves of the plants do not develop kindly, while a closer inspection will reveal the presence of insect-life. Not infrequently, too, should the pest have long held sway, disfigurement of the inner leaves will have resulted, which earlier attention might have avoided. The remedy now is the use of Tobacco water or soft soap and paraffin, well beaten together when being used. Take a wineglassful of the latter and 3oz. of the former and make up three gallons of the mixture, with which syringe all parts of the plants, though more particularly the heart leaves, where the pest is secreted. S. N. N.

GARDENING FOR BEGINNERS.

CUTTING BACK PYRETHRUMS.

THERE are few hardy flowers that are more welcome in the month of June than the Pyrethrums; they serve the purpose of assisting to make the outdoor garden bright and pleasing until the great plethora of hardy flowers come into blossom in early July.

Pyrethrums succeed remarkably well when they are planted in good soil that has been enriched with cow-manure. Especially is this fact noticeable during spells of exceptionally dry weather, such as we have experienced during the present early summer. To add to the fertility of the soil and to provide a cool root-run it is most essential that the quarters should be deeply dug. Not less than two spits deep will suffice. Our concern at the moment, however, is to prolong the period of flowering of the Pyrethrums and, as far as possible, to provide for continuity of blossoming. If a wise system of culture be observed, the plants, or at least a proportion of them, should never be flowerless throughout the summer. One of the charms of the single-flowered kinds is that many of them are self-supporting; they are able in perfectly natural manner to maintain their flower-stems in an upright position without staking and tying. In very open and exposed situations, however, it is better to stake both single and double flowered varieties, otherwise they may become so broken and twisted by rain and wind as to spoil their beauty. Three stakes inserted equidistant round about each plant, and raffia strained and securely tied from stake to stake, will suffice to maintain the flower-stems in position, at the same time covering up the stakes inserted for their support. In some gardens hoops of galvanised wire, Hazel shoots and any other equally pliable growths of trees may be made up into hoops, and the latter adjusted in position by being supported and secured to stakes of a sufficient length for the purpose. It is well to do this early, and in view of cutting down at the present time plants that have flowered, with the object of providing a second display later on in the season, these hints as to staking may be regarded as timely.



1.—PYRETHRUM PLANT ON WHICH THE FLOWERS ARE FADING. THE STEMS ARE NOW READY FOR CUTTING DOWN.



2.—THE SAME PLANT CUT DOWN TO WITHIN A FEW INCHES OF THE SOIL.

Some of the earliest varieties that come into flower in the early days of June are already giving evidence that their beauty is on the wane, and this should be a sufficient indication to the grower that the time has arrived when the plants should be cut back. Those who know these plants well and who make the most of them, cut down the flower-stems to within a few inches of the soil directly the flowers fade. If the fading flower-stems are allowed to remain on the plants for any length of time, the energies of the plants will become speedily exhausted, and the chances are that only one crop of blossoms will be obtained. The prompt removal of the fading blossoms, and the flower-stems too, should ensure the development of a second display of their welcome blossoms in July and August. For the purpose of illustration in Fig. 1 a plant of a single-flowered Pyrethrum showing the flowers just beginning to fade is shown. The stiffness of the petals has gone, and in some cases they are actually drooping. In the case of double-flowered sorts, the blossoms begin to wither and shrivel. It is at this period that the flower-stems should be cut back to within a few inches of the soil.

Fig. 2 serves to illustrate the drastic way in which the flowering plants should be cut back. A plant of this description has great possibilities. If the soil round about the plants that are cut back is lightly forked over or loosened, and then well watered, subsequently applying a mulching of well-rotted manure from an old hot-bed, the plants will quickly respond with new and vigorous flower-stems, well repaying the grower for the extra trouble taken. The plant illustrated has been mulched in the manner indicated. When in good health the plants enjoy a fortnightly application of manure-water, and copious supplies of clear water in dry weather.

D. B. CRANE.

FLOWER SEEDLINGS IN SUMMER.

UNTIL nearly the end of June many gardeners are kept exceptionally busy putting out bedding plants and finishing up the odd work connected with that business. It is during this period also that the main crops of Grapes must be thinned, the shoots of Peach trees tied in, and the final potting and staking of Chrysanthemums attended to. No wonder, then, that the busy gardener can scarcely find time to give his seedling flower plants, which are to afford him so much pleasure the following year, the care they really require and deserve.

Seedlings of Silenes, Pansies, Wallflowers, Canterbury Bells, Polyanthuses, Primroses, Sweet Williams, Delphiniums, Gaillardias, Pyrethrums and similar kinds play a very important part in the furnishing of the flower-beds in due season, and unless they receive the best attention while they are small, the best results will not be realised. Young plants, of course, possess few roots, and they permeate only the surface soil, the latter drying quickly at this season of the year. If the soil is allowed to get dust dry frequently, the plants are checked and premature flowering is induced.

The soil should be deeply dug and all large lumps well broken before any plants are put out; but it is advisable to moderately firm down a naturally light soil after it has been dug. An inexperienced cultivator may say, "Why dig up the soil at all, then?" If it were not dug at all, the roots would not enter it because of the extreme hardness of the loam. The digging not only loosens it, but ventilates the soil, and the firming of it afterwards does not make it really hard and unfit for roots to penetrate. A moderately firm rooting medium induces a sturdy growth, and, furthermore, the surface soil does not dry up as quickly as one that is comparatively loose, so the seedlings will not suffer as much in the firm as in the loose soil during a dry, hot spell of weather.

Except in special instances, all the watering should be done after six o'clock in the evening; then the soil will remain moist throughout the night and well on into the morning of the following day, thus giving the plants a grand opportunity to become established in open-air borders. I would not hesitate to apply a light mulch of sifted leaf-soil in the case of plants growing in a very sandy soil. This mulch will prevent undue evaporation, and watering will not be needed so frequently.

AVON

THE PARENTAGE OF ROSES.

(*Continued from page 290.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Jeanne Buatois	H.T.	Buatois	1902	Merveille de Lyon × Eugène Resal
,, d'Arc	P.P.	Levavasseur	1909	Seedling Mme. N. Levavasseur
,, Proudfoot	Tea	Nabonnand	1903	Paul Nabonnand × Archiduc Joseph
,, Speltincks	H.T.	Soupert	1900	Mme. Eugénie Verdier × Mrs. W. J. Grant
Jelina	H.Rug.	Kauffmann	1894	R. rugosa rubra × Etoile de Lyon
Jersey Beauty	H.W.	Manda	1899	R. wichuraiana × Perle des Jardins
Jessie	P.P.	Merryweather	1909	Sport Phyllis
J. F. Gitaud	Tea	G. Ketten	1906	Enchantress × Mme. René Gerard
Joas Borges Vieira	Tea	Ketten	1899	Catherine Mermet × Safrano
Johanna Sebus	H.T.	Müller	1898	Pierre Notting × Safrano × Gloire de Dijon × Xavier Olibo
Johannes Wesselhoft	H.T.	Welter & Hinner	1899	Kaiserin Augusta Victoria × Comtesse de Frigneuse
Johannisfener	Pern.	Turke	1909	Princesse de Bearn × R. lutea punicea
John Burton	H.W	Hoopes	1903	R. wichuraiana × Safrano
,, Hopper	H.P.	Ward	1862	Jules Margottin × Mme. Vidot
,, Waterer	H.P.	Portemer	1861	Seedling Eugène Appert
Jonkeer J. L. Mock	H.T.	Leenders	1909	Caroline Testout × Mme Abel Chatenay × Farbenkönigin
Joseph Billiard	H.W.	Barbier	1905	R. wichuraiana × Mme. Eugène Resal
,, Lamy	H.W.	Barbier	1906	R. wichuraiana × Mme. Laurette Messimy
,, Liger	H.W.	Barbier	1909	R. wichuraiana × Irene Watts
,, Lowe	H.T.	Lowe & Shawyer	1907	*See* Lady Faire
,, Paquet	Tea	Ketten	1905	G. Nabonnand × Margarite di Simone
,, Schwartz	H.T.	V. Ducher	1899	Luciole × Lady Alice
Josephine Viollet	N.	Levet f.	1890	Ophirie × Maréchal Niel
Jubilee	H.P.	Henderson	1897	Louis van Houtte × Prince Camille de Rohan
Jules Finger	Tea	V. Ducher	1879	Catherine Mermet × Mme. de Tartas
,, Levacher	H.W.	Barbier	1908	R. wichuraiana × Laurette Messimy
,, Roussignihol	H.P.	de Sansal	1864	Seedling General Jacqueminot
Juliet	Pern.	W. Paul	1909	Captain Hayward × Soleil d'Or
Julius Fabrianico de Misefa	Tea	Geschwind	1901	Bardou Job × Souv. du Dr. Passot
Kaiser Friedrich	D.T.	Droegemuller	1890	Gloire de Dijon × Countess of Oxford
,, Wilhelm	Tea	Droegemuller	1889	Mme. Berard × Perle des Jardins
,, Wilhelm II.	H.T.	W. Jacobs	1909	Kaiserin Augusta Victoria × Van Houtte
Kaiserin Augusta Victoria	H.T.	Lambert & Reiter	1890	Coquette de Lyon × Lady M. Fitzwilliam
,, Friedrich	D.T.	Droegemuller	1889	Gloire de Dijon × Perle des Jardins
Kaiserkrone	H.T.	Welter	1899	Kaiserin Augusta Victoria × Antoinette Durieu
Karl Rosineck	H.T.	Plog and H.	1908	Caroline Testout × Princesse de Bearn
Kate Dwyer	Tea	Egginton	1902	Seedling Marie van Houtte
,, Moulton	H.T.	Monson	1906	Caroline Testout × La France × Mrs. W. J. Grant
Katherine Zeimet	P.P.	Lambert	1900	Etoile de Mai × Marie Pavic
Ketten Frères	D.T.	Nabonnand	1883	Seedling Gloire de Dijon
Kleiner Alfred	P.P.	Lambert	1904	Anne Marie de Montravel × Shirley Hibbert
Kœnig Lauren	H.T.	Turke	1910	Caroline Testout × White Maman Cochet
Kœnigin Carola	H.T.	Turke	1903	Caroline Testout × Viscountess Folkestone
,, Emma	H.T.	Verschuren	1904	Seedling Kaiserin Augusta Victoria
,, Wilhelmina	Tea	Verschuren	1904	Seedling Dr. Grill
Kommerzienrat W. Rautenstrauch	M.S.	Lambert	1909	Leonie Lamesch × R. lutea bicolor
Kronprincessin Victoria von Preussen	B.	Volvert	1887	Sport Souv. de la Malmaison
Lackskœnigin	Tea	J. C. Schmidt	1900	Seedling Celina Noirey
La Detroite	H.T.	Hopp	1904	Caroline Testout × Bridesmaid
,, Favorite	H.T.	V. Schwartz	1899	Caroline Testout × Reine Emma des Pays-Bas
,, France de '89	H.T.	M. Robert	1889	Reine Marie Henriette × La France
,, Galissière	H.T.	Schwartz	1907	Mrs. W. J. Grant × Princesse Marie Mertchersky
,, Niege	P.M.	Moranville	1905	Sport Blanche Moreau
,, Perle	H.W.	Fauque L.	1904	R. wichuraiana × Mme. Hoste
,, Prospérine	P.P.	Ketten	1897	George Schwartz × Duchesse Marie Salviatti
,, Tosca	H.T.	V. Schwartz	1900	Josephine Marot × Luciole
,, Vendomoise	H.T.	Moullière	1907	Mrs. W. J. Grant × Marie d'Orleans
Lady Arthur Hill	H.P.	A. Dickson	1889	Seedling Beauty of Waltham
,, Battersea	H.T.	G. Paul	1901	Mme. Abel Chatenay × Liberty
,, Faire	H.T.	Bentley	1906	Sport Mrs. W. J. Grant
,, Gay	H.W.	Walsh	1906	Seedling Crimson Rambler
,, Godiva	H.W.	G. Paul	1907	Sport Dorothy Perkins
,, Hillingdon	Tea	Lowe & Shawyer	1910	Papa Gontier × Mme. Hoste
,, Joy	H.T.	Manz and N.	1903	American Beauty × Mrs. W. J. Grant
,, Mary Fitzwilliam	H.T.	Bennett	1882	Devoniensis × Victor Verdier
,, Penzance	H.S.B.	Penzance	1894	R. rubiginosa × R. lutea
,, Roberts	Tea	F. Cant	1902	Sport Anna Olivier
,, Sarah Wilson	Dam.	Turner	1902	Seedling R. macrantha
,, Waterlow	H.T.	Nabonnand	1902	Seedling La France de '89
,, White	Dam.	Turner	1901	Seedling R. macrantha
,, Zoe Brougham	Tea	Nabonnand	1885	Seedling Isabelle Nabonnand
L'Africaine	Ch.	Vibert	—	R. indica × R. damascena
L'Ami Boisset	Tea	Puyravaud	1897	Seedling Schablikine
Laure Dupont	Ch.	A. Schwartz	1906	Hermosa × Louis van Houtte
,, Wattinne	H.T.	Soupert	1901	Marie Baumann × Caroline Testout
Laurent Carle	H.T.	P. Ducher	1907	Seedling × seedling
L'Eblouissante	H.P.	Touvais	1852	Seedling General Schablikine
L'Etincelante	H.P.	Vigneron	1891	Seedling Bijou de Couasnon
Le Cid	H.Rug.	Vigneron	1908	Conrad F. Meyer × Belle Poitevine
,, Flambeau	Tea	Chedane and P.	1906	Sport M. Tillier
,, Soleil	D.T.	Dubreuil	1891	Gloire de Dijon race
Lena Pimenta	Tea	Martins	1903	Seedling Marie van Houtte
Leon Leroux	Tea	Ketten	1902	Gloire de Deventer × Luciole
,, Robichon	H.T.	Robichon	1901	Sport Caroline Testout
,, XIII.	Tea	Soupert	1892	Anna Olivier × Earl of Eldon
Leonce Moise	H.P.	Vigneron	1859	Louis XIV. race
Leonie Lamesch	P.P.	Lambert	1899	Aglaia × Kleiner Alfred
,, Moissey	H.T.	Vilin-Vilin	1907	Caroline Testout × Souv. de Paul Neyron
Leontine Gervais	H.W.	Barbier	1903	R. wichuraiana × Souv. de C. Guillot
Leopold Robichon	Tea	Robichon	1908	Seedling Duchesse d'Auerstœdt
,, I.	H.P.	Van Asche	1863	Seedling General Jacqueminot
Les Gloriettes	Ch.	Gamon	1907	Laurette Messimy × R. multiflora
,, Rosati	Pern.	Gravereaux	1908	Persian Yellow × H.P. × Tea
Letty Coles	Tea	Coles	1876	Sport Mme. Willermoz
Leuchtfeuer	C.C.	Turke	1908	Grüss an Teplitz × Cramoisie Supérieure
Leuchtstern	M.S.	J. C. Schmidt	1899	Seedling Daniel Lacombe

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

NOTES FROM IRELAND.

RAIN is wanted here badly, as since May 14 we have experienced a time of drought. There are one or two plants which strike the visitor as being very good, notably Aster subcæruleus, a plant which deserves to be given a place in all gardens. We have flowers of this 3 inches across, clear mauve, with a bold orange centre. This plant can be easily grown from seed. Another batch of plants which are very striking just now are the single scarlet Geums, which create masses of vivid scarlet. They are often looked upon as rather common, somewhat weedy plants; but seen in the garden here in a mass their true value is obvious to all. Olearia gunniana is just passing out of flower; it has been a conspicuous subject for several weeks. Some old-established plants of the Tree Lupine are making a fine show, as are also varieties of Lupinus polyphyllus. A group of Columbines are fine under partial shade. Bushes of Lonicera belgica are now full of flower. This is a plant that thrives here.

Apples are a poor crop; there was abundant blossom, but the fruit failed to set. The same applies to Cherries, both Sweet and Morello. Gooseberries are bearing good crops. Some young bushes of these have responded to applications of nitrate of soda. They were stunted owing to raids of caterpillars during previous seasons.

We are digging Potatoes, our earliest being May Queen. Peas Reading Wonder sown on a south border on March 1 were ready for the table on June 4. This variety is now succeeded by Seedling Marrowfat and Early Dwarf. Longpod Broad Beans sown on February 13 will supply a dish very shortly. Sutton's April and Flower of Spring Cabbages have been excellent. I consider these Cabbages went through a severe test, the details of which may be interesting to readers. They were planted on land which had produced Potatoes. No manure was afforded. Soon after planting, the wild duck (of which there were a number on the island) made a raid on the garden. The young Cabbage plants were attacked and practically every leaf was eaten, the heart only being left. Then followed some strong gales, and the bed was in quite an exposed position. It was thought that the ground would have to be replanted in the spring; but during January we had mild and calm weather, and the plants then commenced to grow. The soil was stirred between them and a pinch of nitrate of soda applied occasionally. Soil was also earthed up around their stems. After the checks to the early growths it was feared that the plants might run to seed. Not one plant bolted, and we have been cutting a splendid lot of Cabbage.

Lambay Island. C. RUSE.

THE EDITOR'S TABLE.

A NEW STRAIN OF COLUMBINES.

The Rev. J. Jacob, whose name will be familiar to most of our readers, sends us flowers of his Uppingham strain of long-spurred Aquilegias; and although we have seen many beautiful examples of these charming flowers, we do not remember seeing anything quite so attractive as these. The moderately broad sepals are of a beautiful rich shade of terra-cotta red, and this same colour is the only one in the spurs proper. The broad ends to the spurs, which form a sort of cup, are, however, rich golden yellow, this also being the colour of the tassellate mass of stamens. Thus we get a delightful combination of rich terra-cotta red and deep yellow, the effect of which is most charming, particularly in artificial light.

A NEW CLIMBING MOSS ROSE FROM FRANCE.

Messrs. Barbier and Co., 16, Route d'Olivet, Orleans, France, send blooms of a most interesting Rose which they have named Wichmoss. It is said to be a cross between Rosa wichuraiana and the Moss Rose Salet, the former parent being seen in the foliage and habit, while the moss-like character of the latter is retained in the flowers. The following is the description sent with the blooms by Messrs. Barbier and Co.: "Very strong-growing, making shoots 5 feet to 8 feet in length. It is very curious, having the branches covered with small thorns, like the Moss Roses. The foliage is large and glossy, dark green. The flowers are semi-double, 2 inches to 3 inches across, sweet-scented, rosy white, tinted carmine rose underneath. They are borne in clusters of six to fifteen flowers. The ovary and sepals are mossy, like the variety Salet. It is a truly climbing Moss Rose."

NEW PLANTS.

PHILADELPHUS HYBRIDUS LEMOINEI VIRGINAL.—A magnificent pure white variety, the flowers of large size, double and remarkably fragrant. A most valuable addition to good flowering shrubs. From Sir Trevor Lawrence, Bart., Dorking. First-class certificate.

Carnation Charlotte Bronte.—The flowers of this are of deep rose colour and delightfully fragrant.

Carnation F. W. Goodfellow.—Yellow ground fancy, bordered with rosy scarlet; very handsome. These were shown by Mr. C. Blick, Hayes, Kent, and each received an award of merit.

Sweet Pea R. F. Felton.—A distinct variety of mauve and rose colouring. From Mr. R. Bolton, Carnforth. Award of merit.

Delphinium Primrose Queen.—The flowers are pale primrose with deeper-coloured eye.

Delphinium Mauve Queen.—A lovely flower of large size and clear mauve colour. These came from Mr. G. Ferguson, Weybridge, and each received an award of merit.

Odontoglossum Europa (O. gandavense × O. crispum F. K. Sander).—The sepals and petals are of dark chocolate colour, with a rather broad, wavy bordering; the lip is heavily tipped with white. Quite a unique variety. From Mr. F. Gurney Fowler, Woodford. First-class certificate.

Odontioda rosefieldensis crawshayana.—The flower is of large size and of a uniform dark orange shade, the reverse of the petals being of a more reddish tone. The crest-like lip is of golden hue. From Mr. de B. Crawshay, Sevenoaks. Award of merit.

Awards of merit were also given to Cucumber Pride of the Market, from Messrs. Barr and Sons, King Street, Covent Garden; Cucumber Telegraph Improved, from Messrs. James Carter and Co., Raynes Park; and Strawberry Excelsior (for flavour), from Mr. T. E. Smiles, Wilmington, Kent.

ANSWERS TO CORRESPONDENTS.

THE GREENHOUSE.

Carnations dying off (*L. S. B.*).—Judging by the specimen sent, your soil is evidently badly infested with wireworm, which play havoc with the roots and cause the death of the plants. Some good may be done by dressing with Vaporite according to the instructions supplied; but you are not likely to meet with any great measure of success if all your plants are as old and exhausted as the one sent. Apart from the mischief done by wireworm, the frosts we experienced early in April may, by causing destruction of the fibres in the old and moribund stems, be answerable for some of the damage. In order to obtain any satisfactory results, you will evidently need to make a fresh start with good healthy stock. If you have plants in good condition, they may be layered in a few weeks, and the plants so obtained potted into 4-inch pots and kept in a cold frame with plenty of air throughout the winter. It would also be good policy to select a fresh spot for your plants.

Billbergia nutans (*R.*).—We do not entertain the least doubt that the name of the plant referred to by you is Billbergia nutans. It is so distinct that there is but little, if any, danger of confounding it with any other plant, unless perhaps it be one of its immediate allies. It is a native of Brazil, whence it was introduced in 1868, and it often crops up among imported Orchids from that region. The genus Billbergia, of which there are many species, is in a state of Nature confined principally to Brazil and the surrounding countries. It belongs to the Order Bromeliaceæ, and is, therefore, a near ally of the Pineapple, but in general appearance it is widely removed therefrom.

Geraniums diseased (*Anxious*).—The disease that has carried off so many of your Geraniums is greatly on the increase, and various suggestions have been put forward as to the cause. The generally-accepted idea is that it is set up by an excess of moisture, not necessarily at the roots, but also in the atmosphere. Plants that are in a firm, sturdy condition are far less liable to be affected than the weaker ones. The soil sent was very poor, and you cannot expect to grow good, healthy plants in such a compost. There is a great tendency nowadays to employ artificial manures, and it is very probable that this also has something to do with the matter, the general constitution of the plant being weakened thereby. Sweet, healthy soil, with a little natural manure, if needed, and plenty of air and light all play a prominent part in the successful culture of Geraniums.

FRUIT GARDEN.

Failure of Peach and Nectarine trees to bear fruit (*T. F. B., Ditchingham*).—The clear and explicit way in which you state your case in relation to the condition of your trees not only this year, but also in previous years, makes the matter plain to us that the overcropping of your trees last year is the sole cause of failure this year. It took so much out of the trees to swell and mature this heavy crop that there was not strength enough left in them to properly develop and ripen the necessary fruit-buds for this year's crops. You say the trees flowered very well. Yes, so they may have done; but if you had examined the flowers you would have found the petals to have been poor and thin, and the anthers practically devoid of healthy, strong and fertile pollen. This should teach you a useful lesson never to overcrop Peach or Nectarine trees. They are bound to suffer afterwards, and sometimes it takes a long time to bring them round.

Wash for Peach trees after stoning (*A. S.*).—We are averse to recommending the use of caustic or other washes to Peach trees when in tender foliage, especially when the trees are under the care of amateurs, because we have seen so many regrettable results from such application and seldom any benefits accruing to the trees. Please send a few affected leaves. We shall then be in a better position to help you.

Young Peach trees (*H. L.*).—From what you say, no doubt the trees have made too strong growth. The fruit-buds have not been properly developed or ripened, and so long as you trees continue to make this coarse growth, so long will they continue barren. The only way to prevent this strong growth is to lift your trees in early autumn, root-pruning all the strong roots and immediately replanting in fresh fibrous loam of rather a heavy texture, adding a sprinkling of bone-meal to the soil. The work, if carefully done, need cause no set-back to the trees fruiting the following year.

MISCELLANEOUS.

Anemone foliage for examination (*S. H. B.*).—The Anemone leaves sent were decaying from the bottom upwards, but there was nothing on the leaves themselves to enable us to say what was the matter with the plants. If you could send roots, it would probably be more satisfactory, and it would also be well to search for any trace of a fungus (Sclerotinia tuberosa) having dark brown cups at the top of a dark brown stem about 2 inches tall in the bed.

Caterpillars on Lettuce (*Charnwood*).—The caterpillars destroying the Lettuces are those of the ghost swift moth. It is an insect that feeds on a number of different plants, including Nettle and Dock; but Hops, Carrots, Oats, Potatoes, &c., are all destroyed at times by it. The moth flies in the dusk and appears in June and July. Frequent hoeing and the use of pieces of Potato buried in traps in a marked place afford the best means of capturing the insect.

Wireworms destroying Sweet Peas (*W. T.*).—Where the land infested can lie fallow for a year, a good dressing of gas-lime will rid it of the pest; but it cannot be applied strong enough for this purpose when the land is constantly under crops without injury to them. Wireworms chiefly feed on the roots and stems of plants, and usually come near the surface to feed. A good trap is fresh Lettuce leaves (they prefer these to Carrots), burying them deep in the soil and examining once or twice a day.

Names of plants.—*Hibernian.*—Rosa wichuraiana Francois Guillot.——*H. Ostleve.*—Rose Homère.——*M. M.*—1, Pyrola minor; 2, Veronica officinalis.——*L. G. C. T.*—1, Tradescantia virginiana; 2, Lychnis coronaria; 3, Stachys lanata; 4, no specimen; 5, Erigeron speciosus; 6, Spiræa Filipendula; 7, Saxifraga crassifolia; 8, Dactylis glomerata variegata.——*Quercus.*—1, Cannot identify single leaves; 2, Sequoia sempervirens; 3, Taxodium distichum; 4, Abies concolor; 5, Alnus glutinosa laciniata; 6, Juglans nigra; 7, Juniperus Sabina; 8, Myrica Gale; 9, Potamogeton natans; 10, Habenaria chlorantha; 11, Orchis maculata.——*A. Mooring.*—Iris orientalis, a well-known plant.——*M. R., Northwood.*—1, Merely a sport, not a hybrid; 2, Pentstemon pubescens; 3, Yes; protection would answer the purpose. Propagation by means of root cuttings would be better.——*Gilbert White.*—Thymus Serpyllum pannonicus.——*Watton.*—1, Electra; 2, Rosa polyantha (type); 3, Morletti; 4, Zepherin Drouhin. Possibly No. 2 resulted as a sucker upon which the original Rose was budded, as this variety is often used as a stock. No. 3 is a Boursault Rose, and only blooms once in the season.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held at Vincent Square on the 20th ult. was a very good one indeed. Exhibits were well up to the usual standard, but visitors were not so numerous, this adding greatly to the comfort of those who did attend

FLORAL COMMITTEE.

Present: Messrs. William Marshall and H. B. May (joint-chairmen), and Messrs. W. B. Grandfield, J. Green, W. J. Bean, G. Reuthe, R. C. Notcutt, C. R. Fielder, J. F. McLeod, C. Dixon, H. J. Cutbush, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. J. James, R. C. Reginald Neville, J. Dickson, Charles E. Shea, C. Blick, J. Jennings, R. W. Wallace and William Cuthbertson.

Messrs. William Cutbush and Sons staged a very fine collection of Carnations of the Perpetual-flowering class, of which Frank Galsworthy (quite an art colour in Carnations), Alma Ward (a delightfully fragrant flower), White Enchantress, Lady C. Waring, Mikado and Carola were the chief. Marchioness of Tweeddale, a very beautiful pink, was also well shown. Bronze Banksian medal.

Messrs. R. H. Bath, Limited, Wisbech, had a glorious display of Delphiniums, the firm showing a selection of these flowers in admirable style. Mme. Zaiser (clear blue, white eye), Mrs. Creighton (deep royal purple), Lilacina (mauve lilac), Blandina (of Belladonna shade, on fine spike), Sir Richard Granville (blue and rosy mauve) and General Baden-Powell (of azure blue and mauve shading, in compact spikes) were the best. Explorateur Flamand (of deepest violet) was also noted, while Catalina (purple, with white eye) was among the more conspicuous in a large collection. Some excellent Pæonies were shown, and of these Marie Lemoine (double white) and General Nogi (crimson petals and gold petaloids) were the best. Bronze Flora medal.

Messrs. Barr and Sons, Covent Garden, displayed a very showy and well-arranged bank of hardy flowers, which included Phloxes of the suffruticosa set, many beautiful Larkspurs, Irises of the English and spuria groups, together with such good hybrid forms as ochroaurea and Monspur Dorothy Foster among many others. Lilies were plentifully shown, many sections of the flower being well represented. Water Lilies, Potentillas, Heucheras and other good hardy flowers were well shown. Bronze Flora medal.

Messrs. G. and A. Clark, Limited, Dover, had a small group of hardy things, chiefly of Larkspurs, Irises, Alstrœmerias, Heucheras and the like. The charmingly interesting Primula littoniana was also noted in the group.

Messrs. William Wells and Co., Merstham, displayed a small yet effective group of Pentstemons and Phloxes, while Carnation White House played its good part in the centre of the group.

Messrs. A. A. Walters and Son, Bath, showed Delphinium Rev. E. Lascelles, a magnificent double-flowered variety of intense royal purple and pure white. It is one of the most conspicuous of these flowers.

The Misses Hopkins, Shepperton-on-Thames, had a pretty exhibit of Edelweiss, Pinks, Linums, Campanulas and other alpine flowers. Phyteuma comosa, a great rarity among alpine plants, was also noted in good condition.

Mr. James Box, Lindfield, Sussex, had a delightful gathering of Sweet Peas, and, despite an arrangement which savoured of a little density, the display was of an exceptional character. Scarlet Monarch, Miriam Beaver (pale pink), Clara Curtis (cream), Zarina (very beautiful), Mrs. Gibbs Box (deep pink), Blue Flake Spencer and

Colleen were among the best in a particularly fine lot. Mr. Box also had a fine group of hardy flowers, chiefly Delphiniums, Violas and Oriental Poppies. Silver-gilt Banksian medal.

Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, had a very charming arrangement of cut Roses, of which Rose du Barri, the hybrid white Briar Una, Irish Elegance, Claudius (a new variety of 1910, possessing a most powerful fragrance), Elizabeth (the so-called pink-flowered Druschki), Electra (very charming in cream) and Maharajah (a glorious pillar Rose of crimson maroon hue) were particularly good and effectively displayed. Silver Flora medal.

Mr. Robert Bolton, Warton, Carnforth, had a small exhibit of choice Sweet Peas, of which Clara Curtis (cream), Thomas Stevenson and Charles Foster (palest rose and mauve) were the best.

Messrs. H. B. May and Sons, Edmonton, displayed hardy and greenhouse Ferns, Crotons and Allamanda grandiflora. The hardy Ferns included a nice lot of Scolopendriums, the Nephrolepis constituting pretty representative groups of greenhouse Ferns. Silver Banksian medal.

Mr. H. Burnett, Guernsey, showed Carnations in splendid form. Pluto (crimson), Mrs. Whitcombe Riley, Mrs. C. F. Raphael, Marmion, Mikado and R. F. Felton were among the best. Mrs. Clode and Snow Queen among strongly fragrant kinds were very marked. Sultan, a fine crimson, is also worthy of inclusion in such a list. Silver Banksian medal.

Mr. W. Easlea, Eastwood, Essex, had a very pretty exhibit of Roses, both new and old. Mme. Melanie Soupert, Marquise de Sinety, Chateau de Clos Vougeot (dark crimson, strongly perfumed), Hugo Roller, the blue Rambler Veilchenbleu, Irish Elegance, Mrs. A. R. Waddell, Charlotte Klemm, Mrs. Aaron Ward and Mrs. Peter Blair were the best. Mrs. Walter Easlea, of rich Liberty colour, with long buds, was also noted.

Mr. A. J. Harwood, St. Peter's Nursery, Colchester, showed Delphiniums and Campanulas.

Messrs. Jones and Sons, Limited, Shrewsbury, had a lovely gathering of Sweet Peas, Queen Mary, Cherry Ripe, The King, Mrs. Hugh Dickson, Mrs. A. Ireland and Eric Harvey being among the more notable vases. Silver Banksian medal.

Mr. Elisha J. Hicks, Hurst, Berks, showed Roses in splendid style, his vases and stands being admirably arranged. Seagull (a climbing Polyantha), Mme. Segond Weber, Mme. Melanie Soupert, Mrs. Maynard Sinton, White Killarney, Jacques Vincent (a lovely coral shade approximating to Lyon Diabolo) and a single crimson wichuraiana of great promise, both of growth and flowering, were all fine; while Rayon d'Or, gold and scarlet externally, but passing to richest gold on expanding, is a lovely flower. Silver Flora medal.

Messrs. W. Bull and Sons, Chelsea, displayed a group of English Irises in many good varieties and of diverse colouring. Bronze Flora medal.

Sweet Peas were finely displayed by Mr. W. E. Alsen, Denmead, Hants, the cream of leading varieties being well staged. Silver Flora medal.

The Guildford Hardy Plant Nursery sent a nice collection of hardy plants, of which Primula littoniana, Hypericum empetrifolium, Escallonia langleyensis and Crinum longiflorum were conspicuous examples.

The Sweet Pea group from Messrs. Dobbie and Co., Edinburgh, contained a high-class selection, the flowers being arranged in stands that displayed them to perfection. Melba (richest salmon), May Campbell (a fancy variety of cream and crimson), Lady Knox (cream), Red Star, Mrs. Heslington (mauve blue) and Mrs. Cuthbertson (rose and white) were all charming. A deep cream seedling, as yet unnamed, was also greatly admired. It is, to our mind, a greatly improved Clara Curtis; at any rate, it is very fine.

Mr. Pulham, Elsenham, Essex, had a small group of hardy plants, of which alpine Pinks, Orchises and Campanulas were the chief.

Messrs. J. Cheal and Sons, Crawley, filled a table with cut examples of flowering and other shrubs, of which Rubus, Rhododendron myrtifolium, Philadelphus, Deutzia, Colutea, Kalmia, Andromeda, Olearia and Tamarix were among the more notable. Silver Flora medal.

Messrs. G. Bunyard and Co., Maidstone, occupied a full-length table with Campanulas, Delphiniums, Irises, Heucheras, double white and double purple Stocks, Morina longifolia, Betonia grandiflora, white Scabious and Iceland Poppies, staging the whole with good taste and skill. Silver Flora medal.

Messrs. Stuart Low and Co., Enfield, arranged across the western end of the hall a sumptuous group of Carnations, in which the Malmaisons and Perpetual-flowering varieties figured conspicuously. The group was arranged in an informal manner, and above a groundwork of moss appeared a delightful arrangement of the flowers. Lady Rose, Princess Juliana, Irene, Princess of Wales, C. P. Little (yellow Malmaison), Sunset (yellow fancy Malmaison) and Jane Seymour (deep rose) were among the more conspicuous in an excellent lot. Silver-gilt Banksian medal.

Messrs. William Paul and Sons, Waltham Cross, displayed a nice group of Roses, of which Mme. Leon Pain, Portia, Juliet (remarkable in colour), Florence Haswell Veitch, Le Progrès and Mme. Segond Weber were among the more notable. Silver Banksian medal.

Messrs. Carter Page and Co., London Wall, had an exhibit of Cactus and other Dahlias and Pelargoniums in variety. Bronze Banksian medal.

Mr. G. Reuthe, Keston, Kent, had a most interesting group of hardy plants, Rhododendron cinnabarinum superbum, R. daphnoides, Bruckenthalia spiculifolia (a fine mass of flowers), Veronica glauca cærulea, Orchis hireina (the Lizard Orchis), Campanula excisa, Abelia floribunda, Mitraria coccinea, with Lilies and Eremurus Warei in shades of yellow and bronze, together with Ixias and Campanula Raddena, being noted in a good lot. Silver Flora medal.

Mr. Maurice Prichard, Christchurch, Hants, displayed Delphiniums in many kinds, also Liliums, Brodiæas and Campanulas. Some vases of Calochorti were very beautiful, while Eryngium alpinum and Centaurea pulchrum major were of conspicuous beauty. Silver Flora medal.

Messrs. T. S. Ware, Limited, Feltham, had a showy group of hardy flowers, in which were seen Pæonies, Delphiniums, Gaillardias and other seasonable plants. Bronze Flora medal.

A collection of dried Grasses from Mr. J. MacDonald, turf specialist, Harpenden, was of more than ordinary interest. Silver-gilt Banksian medal.

Messrs. George Paul and Son, Old Rose Nurseries, Cheshunt, had a big table of garden Roses, Pæonies, Heucheras and Irises, the whole being of excellent quality and containing all the leading varieties. Silver Flora medal.

Messrs. George Jackman and Son, Woking, had a showy group of Heucheras, Lilies, Iris aurea, Delphinium King of Delphiniums and Galega Her Majesty. Scabiosa caucasica was also of much merit. This firm also staged a fine lot of Roses, Mme. Ravary, Prince de Bulgarie, Duchess of Wellington, Lady Hillingdon and Le Progrès being noted in an excellent lot. Silver-gilt Banksian medal.

Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, displayed an excellent lot of Roses, such vases as Mrs. Alfred Tate, Lyon Rose, Lady Hillingdon, Marquise de Sinety, Rouge Angevine (a lovely crimson) and Mme. Melanie Soupert being particularly noticeable and good. White Killarney and many single-flowered varieties were strikingly beautiful. Silver Banksian medal.

Mr. Amos Perry, Enfield, arranged a superb display of Larkspurs in groups, the more notable being La France, Julia, Mrs. Creighton (rich dark blue), Dragon Fly (deep purple), Moerheimi (white) and Carmen. Ostrowskia magnifica was also well shown. Silver-gilt Flora medal.

Messrs. Phillips and Taylor, Bracknell, Berks, had a small Water Lily group, the water being suitably planted with high-class flowers. Bronze Flora medal.

Mr. L. R. Russell, Richmond, brought Clematis in variety, Abelia floribunda, Erythrina Crista-galli and well-flowered examples of Metrosideros floribunda. Silver Banksian medal.

From Woking Messrs. Spooner and Sons brought a nice display of Roses. Silver Banksian medal.

Mr. G. Ferguson, The Hollies, Weybridge, had an admirable exhibit of Delphiniums, Primrose Queen and Lavender Queen being notable sorts in a choice lot. Silver Flora medal.

Mr. C. F. Waters, Balcombe, Sussex, brought a fine lot of Carnations.

Mr. Clarence Elliott, Stevenage, displayed an exhibit of rockwork, arranging fine masses of Campanula pulla, C. pusilla Miss Willmott and others.

Messrs. Whitelegg and Page, Chislehurst, had Violas in variety.

Mr. A. A. Fabius, Emsworth, staged Adiantum cuneatum Matador and the so-called Glory Fern.

Messrs. W. J. Godfrey and Sons, Exmouth, had a particularly fine display of Canterbury Bells, seedlings representative of a very delightful strain of these easily-grown flowers. Bronze Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, filled a table with choice named Cannas, standard Fuchsias and Carnations in pots, together with excellent flowering examples of Solanum Wendlandii, which is always so much admired. Silver Flora medal.

Mr. Charles Blick, Hayes, Kent, had one of his admirably-arranged groups of Carnations. Nautilus, King Arthur, Prince Charming, King Oscar, F. W. Goodfellow and Charlotte Bronte were a few of the best. Silver Flora medal.

Messrs. H. Cannell and Sons, Swanley, Kent, had a fine table arrangement of Cannas, Hydrangea paniculata grandiflora and other showy plants. Bronze Banksian medal.

The Roses from Messrs. G. Mount and Sons, Canterbury, were very fine, General Macarthur, Lady Hillingdon, Mme. Ravary, Mme. Melanie Soupert, Mrs. George Shawyer and Richmond being set up in handsome groups. Bronze Flora medal.

Messrs. W. and J. Brown, Stamford and Peterborough, also arranged a magnificent stand of Roses, the collection including a large number of choice sorts. Silver-gilt Banksian medal.

Lord Hillingdon, Uxbridge, Middlesex (gardener, Mr. Allan) staged some excellent Water Lilies and Nymphæas, which were greatly admired. Silver Banksian medal.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), and Messrs. A. Dean, Owen Thomas, J. Jaques, William Pope, J. Willard, A. R. Allan, Edwin Beckett, P. C. M. Veitch, J. Davis, H. Hooper, W. Poupart, G. Wythes, C. G. A. Nix, A. H. Pearson and H. Somers Rivers.

Messrs. James Veitch and Sons, Limited, Chelsea, filled a full-length table with a choice assortment of vegetables, the collection embracing practically everything in season and represented by high-class quality throughout. Among the more conspicuous items were Scarlet Model Carrot, Leviathan Longpod Broad Bean, Golden Jubilee Tomato, Quite Content Pea, Early Purple Kohl Rabi, Cauliflower Snowball, Superb White Cos Lettuce, Market Gem Cucumber and King Edward VII. Potato. The exhibit was splendidly arranged and, as one of the great features of the exhibition, well merited the gold medal awarded.

Mr. S. Mortimer, Farnham, Surrey, had excellent Cucumbers in Cynosure, Unrivalled and Coronation, the fruits in each case being very handsome.

Culinary Peas in variety came from the society's gardens at Wisley, but no award was made.

Messrs. Whitelegg and Page had an exhibit of their Phenomenal Berry, a cross between the Loganberry and the Raspberry. Cultural commendation.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), and Messrs. James O'Brien, H. J. Veitch, R. B. White, W. Bolton, de B. Crawshay, J. S. Moss, J. Wilson Potter, Gurney Wilson, W. H. White, W. P. Bound, C. H. Curtis, J. Charlesworth, J. E. Shill, F. Armstrong, F. J. Hanbury, F. Sander, W. Cobb, W. H. Hatcher, C. J. Lucas and Sir Jeremiah Colman, Bart.

Messrs. Sander and Sons, St. Albans, staged many choice kinds, among which were excellent examples of Dendrobium crystallinum giganteum, Oncidium harrisonianum, Brassavola digbyana and Dendrobium thyrsiflorum. Silver Banksian medal.

Mr. Edward V. Low, Hayward's Heath, had Cattleya Mossiæ Wagneri, Cœlogyne pandurata and Cattleya callosum in a choice lot.

Messrs. Stuart Low and Co., Enfield, had a very fine specimen of Masdevallia harryana, with Cœlogyne pandurata, Oncidium macranthum and others. Silver Banksian medal.

E. R. Ashton, Esq., Tunbridge Wells, had a fine plant of Odontoglossum Williamsii and Cattleya Martinettii in a select lot. Silver Banksian medal.

Messrs. J. and A. McBean, Cooksbridge, Sussex, staged Cattleya Mossiæ in several good forms in a small, select group.

Sir Trevor Lawrence, Bart., Dorking, had a capital example of Catasetum Cliftonii.

Sir Jeremiah Colman, Bart., Gatton Park, sent Anguloa Cliftonii, Catasetum Cliftonii and the creamy-flowered Sobralia Colmanæ with nine flowering sheaths.

The Saltaire Rose Show.—The annual exhibition in connection with the Saltaire, Shipley and District Rose Society will be held on Tuesday, July 11, in Saltaire Park. It is hoped that the exhibition will prove a record one, as a large number of valuable prizes and trophies are being offered. The northern championship class, for sixty Rose blooms, distinct, is sure to be well contested, a handsome challenge Rose bowl, valued at 100 guineas, a gold medal and £10 in cash being offered as first prize. This, as well as a number of other classes, are open to all. Full particulars concerning the show can be obtained from the hon. secretary, Mr. E. Wright, Rosedene, The Glen, Saltaire.

Festival of Empire, Crystal Palace.—At the Festival of Empire, in the Horticultural Section the premier honour was awarded to The King's Acre Nurseries, Limited, of Hereford. The award, a handsome silver Coronation cup, valued at 25 guineas, the work of Messrs. Elkington and Co. of Regent Street, is a very fine specimen of the silversmith's art. It is a three-handled cup, being a reproduction of an ancient vessel discovered at Ardagh in Ireland, and was presented to the Festival of Empire by Messrs. Clay and Son for the most deserving exhibit displayed by nursery firms. The King's Acre exhibit comprised an artistically laid-out garden, including a large and well-designed orchard-house erected by Messrs. Duncan Tucker and Son, on the most approved and modern lines, and a model orchard in the Country Life Section illustrating all that is most modern in the cultivation of standard and bush fruits.

"Country Life" for July 1 contains, among other articles, an illustrated account of "Ditton Place, Balcombe, Sussex"; "Tale of Country Life: Lalage's Lovers," Chapter VII., by George A. Birmingham; "Fish-ponds"; "A Day with the Salmon of the Royal Dee" (illustrated), by Seton Gordon; "Sketching with a Camera" (illustrated), by Ward Muir.

GARDENING APPOINTMENT.

MR. CHARLES MALPAS, late head-gardener at Morgenau, Rhoshill, Pembrokeshire, has been appointed head-gardener to the Rev. the Hon. W. Talbot Rice, Brooklands, Swansea, commencing on May 26 last.

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

HORTICULTURE AND AGRICULTURE.

GARDENERS generally, and particularly those who undertake to grow produce for our markets, have for some years regarded it as a grievance that, for administrative purposes, horticulture has been bracketed with agriculture. They argue, and not without a great deal of truth, that there are many details that require to be dealt with in gardening which are not met with in agricultural work, and that farming operations generally are not applicable to gardening.

However, until this is altered, the best must be made of existing circumstances, and it is with pleasure that we notice the efforts made by the Royal Agricultural Society of England to give horticulture its due. Judging by the success which has been achieved during the last few years, the decision of the Council to hold an exhibition of flowers, fruits and vegetables in connection with their annual show was a step in the right direction, and such superb displays as those witnessed at Norwich last week will do much towards bringing the merits and delights of gardening before that section of the public which does not visit ordinary horticultural shows.

The success of the exhibition at Norwich was due in no small degree to the admirable arrangements that were made; and so long as exhibitors are thus studied, there will be no falling off in the quantity and quality of the exhibits. There were two outstanding features of the show, viz., the cut herbaceous flowers and the sunk garden arranged by Messrs. R. Wallace and Co. This latter was the finest attempt of its kind we have ever seen, surpassing the excellent gardens that the same firm have arranged in previous years at the Holland House shows. The herbaceous flowers were remarkable for their high excellence throughout, and Mr. Davison, head-gardener to Colonel Petre, is to be congratulated on his conspicuous success in winning premier honours, notwithstanding the fact that he was competing with some of the leading hardy plant nurserymen in the country. The long bank of herbaceous flowers staged in this class has not, so far as we are aware, been surpassed at any exhibition in this country, and was a striking testimony to the advance that has been made in hardy flowers during recent years, not only in the raising of new varieties, but in the cultivation of the plants and exhibiting the blooms. There were many lessons that organisers of our great exhibitions could learn at Norwich, especially in the matter of artistic arrangement, and it is to be hoped that they will not be overlooked.

SOME OF THE NEWER EXHIBITION ROSES.

IT is a matter for surprise that such a small percentage of the novelties of each year produce really reliable exhibition flowers, and what there are come to us mainly from Ireland, whereas for decorative garden novelties we are largely dependent upon French, German and American raisers. One French raiser, M. Guillot, has certainly given us some good show blooms, one especially being Mme. P. Euler, a very lasting flower of great substance. His Mme. A. Porcher and Crème Simon seem likely to be good show flowers.

A very fine novelty, and one that has received the gold medal at the Bagatelle trials this year, hails from Holland. It is named Jonckheer J. L. Mock, and is a massive Hybrid Tea Rose of splendid conical form, with a rich glowing crimson pink colour deeper than Farbenkönigin. Its growth is very strong, after the Caroline Testout type. It is very fragrant, and altogether one of the best novelties of the year. I have been particularly pleased with John Cuff this year, and it proves that each Rose has its special season. The splendid guard petals and fine form of the inner petals give to the flower a very majestic appearance, while the glowing rose pink colouring is very effective. Mrs. Harold Brocklebank is a Hybrid Tea that will certainly take an important position in the Analysis as it becomes more grown. The colour is so pure and delicate, creamy white, with buff shading. The form is fine, and the flower possesses a sweet perfume. Messrs. A. Dickson and Sons have not given us a more useful Rose, which is saying a good deal.

George C. Waud must surely be grown in every garden. It is so very distinct in colouring, the orange vermilion tint being seen in no other Rose, unless it be sometimes found in Suzanne Marie Rodocanachi. The growth is splendid, the foliage very distinct, and the form of the flower leaves nothing to be desired.

Molly Sharman Crawford has been wonderfully fine this year. It most certainly belongs to the "great" Roses, and will be grown for many years to come. Some individuals have said to me that it will supersede Frau Karl Druschki. While I do not go so far as to say this, I believe it has many useful qualities to which Frau Karl Druschki would have to take second place. Molly Sharman Crawford is surely an emanation from Mrs. David McKee, and it is a moot point whether it is not a Hybrid Tea.

Judging from blooms upon maiden plants of Entente Cordiale, this Rose will make a fine corner flower for the bottom row. It is of exquisite formation and of the lovely colouring of Kaiserin Augusta Victoria. The fragrance is very strong, altogether a splendid Rose for the garden and for the exhibitor, and certainly one of Messrs. Pernet-Ducher's best. From the same raiser I like very much Colonel Leclerc, which perhaps resembles a little too closely Mme. Maurice de Luze, yet it is, notwithstanding, a good novelty, with fine elongated flowers of a cherry red colour. The form of the flower is excellent. All exhibitors will welcome Mrs. Foley Hobbs, the lovely Tea-scented novelty of Messrs. A. Dickson and Sons. I quite expect this will take a high position before long, for it is a Rose worthy to rank with Mrs. Myles Kennedy and Nita Weldon as an exhibition variety. The growth is free and good, and it is an abundant bloomer, so that we may employ it as a garden Rose also. The colour is a delicate ivory white, faintly tinged with pink on the edges of the petals. P.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 10.—United Horticultural Benefit and Provident Institution's Committee Meeting.

July 11.—National Sweet Pea Society's Show at Vincent Square (two days). Wolverhampton Show (three days). Saltaire and District Show. Brighton and Sussex Horticultural Society's Show.

July 12.—East Anglian Horticultural Society's Meeting. Bath Show (two days). Beckenham Show. Elstree and Boreham Wood Horticultural Society's Show. Croydon Rose Show.

July 13.—Eltham Rose Show.

July 14.—West of Scotland Rose Show.

July 15.—Wood Green and District Summer Show and Gala.

The Royal Horticultural Society's Summer Show.—Owing to the magnitude and general excellence of this exhibition, which is this year being held at Olympia, we are devoting a special Supplement to a report of the exhibits. Even by doing this, so full a description as the excellence of the exhibits demands cannot be given, and for this reason the new certificated plants will be described in our next issue.

Royal honour for Coggeshall.—On the occasion of His Majesty's visit to the Horticultural Section of the Royal Agricultural Society's great show at Norwich, His Majesty expressed great admiration of Messrs. John K. King and Sons' fine display. His Majesty engaged for some minutes in conversation with one of the principals, and was specially interested in a beautiful new Sweet Pea not yet sent out, and which was at once named Prince Edward of Wales.

Northern Fruit Congress, 1911.—This is to be held on November 15 and 16 at Newcastle-on-Tyne in the Town Hall and Corn Exchange, in conjunction with the Newcastle Chrysanthemum Society. Four horticultural societies are joining forces to continue the work of the Northern Fruit Congress and Show. They are the North of England Horticultural Society, the Four Northern Counties' Scientific Committee in Horticulture, the Hexham Committee of the Northern Fruit Congress and Show, and the Newcastle Chrysanthemum Society. The Council of the North of England Horticultural Society, assisted by a small but comprehensive advisory committee of experts, will give their medals to all exhibits deserving of such recognition. They will act on the same principle as the Royal Horticultural Society's delegates acted at Hexham in 1910, and as the Royal Horticultural Society's delegates will act at Harrogate in August, 1911. No entrance fees are necessary, and no special schedule will be issued on which to base these awards. All exhibits in the show will be taken into account. New plants, flowers and vegetables may be exhibited for recognition, and should be entered on special forms, to be obtained from the Rev. J. Bernard Hall, the secretary of the North of England Horticultural Society, Rawdon, Leeds. The names of the judges will be announced later. Exhibits of horticultural sundries and all matters relating to the scheduled exhibits of the Newcastle Chrysanthemum Society are in the hands of Mr. W. Marrison, secretary of the Newcastle Chrysanthemum Society, 7, Hutt Street, Gateshead.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Cheap Strawberries. — If common retail prices have any real signification, it is fair to assume that the general crop of Strawberries has been a heavy one or that the demand for them is less than formerly. It has been possible to purchase very fine fruit, both in baskets and from barrows or stalls, loose, at from 2d. to 3d. per pound, a retail price which at the most cannot mean more than from 1d. to 1½d. per pound to the grower. One great evil of the Strawberry business—indeed, it applies as forcibly to other fruit—is the putting on the market early great quantities that are but half ripe. This fact does very much to set the public against purchasing later fruits which come to hand ripe. Most certainly huge quantities of fruit are sent to market, and sold at from 4d. to 6d. per pound, very unripe, which a week or but two or three days later would be perfectly ripe and be worth twice the money the unripe fruits secured.—A. D.

A Leeds College Professor on Potatoes.—I went on June 2 to hear a Professor from one of our colleges who lectures on horticulture for the County Council of Yorkshire, and I was surprised at the statements which he made. His subject was "Potatoes," and I am one of the many who were dissatisfied with his statements and am in doubt as to their being correct. First, he said that Duke of York and Midlothian Early were one and the same variety, and then, again, that Up-to-Date and The Factor are identical. As all those who listened to this man were mere novices in gardening, there was no one but myself to say anything on the subject. Now, first of all Duke of York is a white kidney, while Midlothian Early is a flesh kidney, different in flavour and quite distinct. As to the Up-to-Date and The Factor, there is a great difference in haulm, shape and flavour. If what he says is true, there are only two kinds of Potatoes on the market. These are Duke of York and Up-to-Date. I should like the opinions of other readers. Then, again, I asked, "How do we get the new kinds of Potatoes?" He said, "Simply by watching the rows. If you see one with a stronger haulm and more robust growth, you mark it and number it; then you go from row to row and continue this method; then, when lifting-time comes, you keep these separate and give them a new name, and you call them a new sort." He says this is the method which our great nursery firms adopt. If that is so, then these firms are giving to the public something which is not true stock. I could have understood if he had said that they were select stocks, as we who grow Potatoes always look for the best root and best-shaped tubers for the seed Potatoes for the following year. I wonder what Messrs. Dobbie and Co. will say to this, seeing they were the raisers of the varieties named. Also the experts who gave them the award of merit after having been exhibited before them will, no doubt, have something to say about it. The Professor said he had been in the Potato department at one of the great seed establishments for a number of years. The firm he mentioned was Messrs. Carter, and he also said he was a Fellow of the Royal Horticultural Society. Anyway, I think the sooner they send someone else to lecture to the poor allotment garden holder, who is anxious to learn how to cultivate vegetables to the best advantage, the better.—T. Owen, *Kilnhurst, near Rotherham.* [We publish the above letter as it is undoubtedly sent to us in good faith. At the same time, we think there must be a misunderstanding somewhere, and it would be interesting to hear the Leeds College side of the question.—Ed.]

Show Pelargoniums.—It is not so many years since specimen plants of show Pelargoniums used to form a prominent feature at the various summer exhibitions, but now they have almost disappeared. Even at the great York Gala, which has long been renowned for these plants, there was this year a great falling off; in fact, large specimens seem now to be doomed. What is more, the varieties now exhibited under the head of show Pelargoniums would not have passed muster with the old-time florists, who had very pronounced ideas as to what constituted a show Pelargonium. In the first place, it was very necessary that the edge of the flower be quite smooth and the lower petals self-coloured, or, at all events, without pronounced spots or blotches. In a good show flower the dark-coloured, almost black, blotch extended over the greater part of the two top petals, while the flower had sometimes a light centre. The last raiser of the true show Pelargonium was Mr. Foster of Clewer Manor, near Windsor, and his set of new varieties, which used to be distributed by Mr. Charles Turner of Slough, were, in the seventies and early eighties, much sought after, and at a price which would nowadays be looked upon as prohibitive. A guinea was the usual price, though some were a little less. Among the show Pelargoniums are to be found some of the richest-coloured flowers, but it was the continual in-and-in breeding to obtain these that led to their undoing, as the constitution of the plants became so weakened that they bore but few flowers in a truss, while the leafage also left a good deal to be desired. The result of this was that the true show flowers declined in favour, and their place was taken by

decorative varieties, which are now often exhibited as show varieties. Another class that has fallen away to quite the same extent is the pretty small-flowered fancy Pelargoniums, which are now hardly ever seen. They used also to be largely grown as specimens, and some of the varieties were very popular with market-growers. As showing the extent to which the decorative Pelargoniums now predominate, it may be mentioned that in the catalogue of one of the principal nursery firms who make a speciality of these plants only fourteen varieties of show and eight of fancies are catalogued, whereas the decorative are considerably over a hundred, and the Regals (closely related to the decorative) nearly half as many.—H. P.

South African emblematic plants.—Since I wrote the note on the emblematic flower for South Africa, which appeared on page 295, I see that the Heralds' College has decided in favour of the Mimosa. As this may be another name for Acacia, one is still in doubt what the plant really is. —JOHN R. JACKSON.

Sweet Peas flowering early. — The heat and drought of the end of May and early June so materially affected Sweet Peas in the Southern districts that plants have been in full bloom while only 24 inches in height. In such case it is no wonder that flowers are of medium size and the stems relatively short. Growers find it most needful to keep the flowers hard cut and to water liberally, although even then the customary growth seen on the plants at this time of year is lacking. Evidently Sweet Peas like a rather moist atmosphere and a moderately low temperature. It would be interesting to learn how far autumn-raised plants are stronger than those raised under glass early in the year and since planted out; but even with the first-named material effect must be had on them by unusual heat and drought.—D.

Rose Marechal Niel.—Mr. J. Brown's experience with Maréchal Niel Rose budded on the Briar stock and my own of now many years ago differs materially, but for an excellent reason. At Bedfont some thirty-five years since we planted a span-roofed house previously devoted to Grapes with standard Roses, all worked on stout Briars, which were planted in stiff soil outside, the heads while small being brought inside. The varieties included such strong growers as Mme. Berard, Lamarque, Reine Marie Henriette and Maréchal Niel, with some weaker ones. Canker in a year or two showed itself on the Maréchal Niel close to the budded union, and we inserted buds in strong young growths, as low down as possible, into the three strong growers named, gradually reducing their heads as the buds grew, until very soon only the Maréchal Niel remained. Still further, the weak growers originally planted had to be cut out also to make room for the Maréchal Niel, which in a year or two literally filled the house, so strong was the growth, the original plant of the variety being cut out also. So robust was the growth made each season that a quantity of old wood had to be cut out each year to enable the young growths to have ample room to mature. But as a result of this double working, not the least evidence of canker afterwards was seen. The Briar stems seemed to be more readily influenced by the action of the earlier strong growers; and although the portions of wood of those left on the Briars ultimately became short, it sufficed to keep the Roses healthy and full of vigour. The natural soil was of a stiff, retentive nature. The roots merely had an occasional mulch of stable manure. The crops of flowers, of good size and rich colour, were excellent. I would like to learn whether others have double-worked Maréchal Niel with a view to preventing the canker disease. -A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

CUCUMBERS.—At this season these grow very rapidly, and unless they are frequently attended to in the matter of thinning and regulating the young shoots, they quickly become a mass of entangled growth, which renders this work more difficult, and also causes the plants to be prematurely exhausted. Plants in full bearing require abundance of food in the way of liquid manure and Le Fruitier. The roots must also receive a fresh covering of some rich material when they appear on the surface. Syringe the foliage twice daily with tepid water, and during hot weather plenty of water must be thrown about the house to create a moist atmosphere. A sowing may be made now for the autumn supplies.

Celery.—The planting of the latest batch should be finished as soon as possible. If the weather is dry at the time of planting, they must be thoroughly soaked with water. They will need further waterings till they have become established should the weather continue dry. The earlier plants will now be large enough for blanching. The method of using bands of stiff brown paper is now more frequently adopted than it used to be. But where very large quantities are grown, as is the case here, the old way will be found quite suitable, provided the work is done carefully. In either case the roots must be well moistened before the work of blanching commences. The plants will now need attention in this matter about every ten days.

Spinach.—A sowing of Spinach may be made now on rich, well-tilled ground for the autumn supplies. Towards the end of the month and early in August other sowings may be made for winter and early spring. Throw a sprinkling of fresh soot over the surface of the soil before it is finally prepared for sowing. The young plants may also be occasionally dusted with soot when they are through the ground. When large enough they must be thinned liberally.

Winter Greens.—The planting of these must be hastened, especially during showery weather. Although it is wise to make late plantations of Savoys and Kales, the bulk of the winter vegetables should be put out by the end of the month.

Cabbages.—Towards the end of the month a sowing of Cabbages may be made. Another sowing should also be made during the first week in August. Early Offenham, Flower of Spring and Ellam's Early are all reliable sorts for this purpose. A sowing of Red Cabbage may be made about the end of the month. Sow Carrots on a south or west border for supplying roots in late autumn and winter. Endive also may be sown at this date for late supplies. Towards the end of the month a sowing of Lettuce may be made for winter use. Stanstead Park and Brown Cos are excellent for this purpose. Sow Radishes about every ten days in a cool situation, and water the plants regularly in dry weather. Turnips may also be sown on a cool border. Sow them frequently in small quantities, as they do not remain long in good condition at this time of year. Should the Turnip fly be troublesome, dust the young plants with wood-ashes early in the morning while the plants are wet. Towards the end of the month make a sowing for winter use. Golden Ball, Green Top Stone and Red Globe may be relied upon for this purpose.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

IT is advisable to lift and replant numbers of the spring-flowering bulbs from time to time, for if left too long in one position a great increase of young bulbs takes place, with a corresponding failure to produce large flowers of good quality, a condition which denotes the necessity for replanting in fresh soil. As soon as the foliage has turned yellow, the bulbs may be lifted and left to lie exposed to the sun for a week or two, after which they may be planted as soon as convenient. Narcissi increase very quickly. When replanting them the best bulbs should be selected; and if they are to be returned to the same bed or border that they have occupied for some years, the soil should be partly renewed with some good loam. In preference to using much farmyard manure a sprinkling of bone-meal may be used with advantage if placed 1 inch or 2 inches deeper than the base of the bulbs. To ensure a good effect the first season the bulbs should not be more than 6 inches apart for all ordinary varieties of Narcissi. Surplus bulbs should be planted in the grass, disposing them in irregular groups so as to give the whole as natural and wild an appearance as possible. Partially open spaces in the woodland under large trees form ideal spots for naturalising such spare bulbs. The lifting of the bulbs should not be delayed till the foliage is quite withered up, for by that time fresh roots are again active.

Colchicums and Crocuses, both autumn and spring flowering, should also be planted at this time. The former make excellent subjects for naturalising in grass, and provide an interesting patch of colour if the mowing has been done about a fortnight before their flowering season, so that the flowers may not be hidden by a rank crop of grass.

Border Carnations.—If not already done, the flower-spikes will need supporting, and for this purpose wire coil stakes are more suitable and easier of manipulation than wooden ones. There are several kinds of wire coils on the market, but one that has been in use here for over twenty years still holds favour against all others. It consists of a stout galvanised wire coil about 4 inches in diameter, with a stem of 2 feet to 2½ feet in length, which can be lowered or raised out of the ground according to the height of the plants, the advantages being that all the flowering shoots from one plant can be enclosed in one coil and gathering of the blooms for cut flowers is easy.

Pinks.—Although these may be got to thrive and continue to flower freely for several years, better results are usually obtained if fresh beds are made of young plants annually. Propagation is very simple, as they root readily from cuttings, which should be twisted off the old plants, and after trimming they may be planted in pots, pans or boxes and placed in a frame with a little bottom-heat, keeping the frame close and shaded until the cuttings are rooted, after which they should be freely ventilated.

For Wall Gardening a good selection of the smaller-flowering forms of Dianthus may be had, and few plants suit this purpose better. We find large healthy clumps growing from crevices in the wall of varieties that are with difficulty kept from dying out in the rockery. Even that fine old but fastidious variety Napoleon III. seems to be more at home in the wall than anywhere else.

Sowing Seeds.—Seeds of perennial hardy plants may be sown this month; they will germinate freely if placed in cold frames, care being taken to cover sparingly with finely-sifted soil according to the size of the seeds. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle

TREES AND SHRUBS.

RHODODENDRONS IN SCOTLAND.

FEW people have any idea of the beauty of the gardens of Scotland, which are so much helped by Nature as well as by science to become some of the most charming in Great Britain. Unfortunately, they are seldom seen at their best. Their owners are generally absent in London in the summer, while the Southron does not arrive till too late.

The features of these gardens remain as they were a hundred years ago, the professional landscape gardener not having yet turned his attention to them. The climate on the West Coast is much as it is in Cornwall, and nearly all the same plants can be cultivated. Our strong point is a beautiful show of Rhododendrons, some of which are in flower nearly every day of the year. Nobleanum and arboreum begin about November and make a fine bit of colour all the winter; it is beautiful to see them in full flower with the snow on their leaves. No one with suitable soil should economise over Rhododendrons. For my part I consider them the most satisfactory plants one can grow, far superior to the Hibiscus of the East, as the latter has nothing like the brilliant effect of a Himalayan Rhododendron nor the quantity of bloom, while many of the latter are fragrant, such as Dalhousiæ, Edgworthii, Fortunei, fragrantissima, sesterianum and others, also the foliage and bark are most attractive when the flowers are over. One advantage of the true Himalayan Rhododendron grown from seed or layers is that one is not worried by suckers, and where there are many shrubs the grafted hybrid is very tiresome. Himalayan Rhododendrons are mostly fairly hardy with us, growing as they do at an altitude of some 12,000 feet in their native haunts. They do not like spring frosts nor wind; the latter should be particularly guarded against. Soil is of less importance, as, provided there is no lime (which may be easily detected by pouring vinegar on it in a glass, when, if there is lime, it will fizz and take a head on it like beer), any ordinary soil is suitable, a good mulching of cow-manure, leaf-mould or lawn-mowings being beneficial.

Some of the best sorts are arboreum (three colours); Aucklandii, white; campylocarpum, yellow; cinnabarinum, orange and red; Roylei, red; barbatum and Thomsonii, red; while Falconeri, eximium and argenteum are worth growing for their foliage alone.

Keysii is quaint, and retains its flowers a long time. Smithii aureum is very handsome (maize, yellow centre). Then we have the beautiful crosses of Himalayan varieties—R. Shilsonii, produced by Mr. Gill of Penryn, Cornwall (who makes a speciality of Himalayans), whose Beauty of Tremough, Glory of Penjerrick and Goliath are so well known—the two former were magnificent at Kew this spring; luscombianum, lovely pink; Manglesii, decorum and kewensis. A collection of these would make a fine show, though it should be borne in mind that all Rhododendrons do best in partial shade. Under the hot sun the flowers lose their colour and fall sooner than if not fully exposed.

As nearly all the Himalayan varieties are early, it is as well to have a good quantity of hybrids to follow, and last of all come the ponticums, which are really not to be despised, as they can be used for shelter for the better sorts, and, after all, flower in all sorts of shades of colour, a useful common one being maximum.

Carradale, Argyllshire. AUSTIN MACKENZIE.



A WELL-GROWN PLANT OF SCHIZANTHUS "HARLEQUIN" STRAIN.



LILIUM COLCHICUM IN A SCOTTISH GARDEN.

RHODODENDRON CYNTHIA AND "MAY" BLOSSOM.

THE above Rhododendron is one of the best for garden purposes. It is exceptionally free-flowering, has large trusses, and the colour is bright rosy crimson. In the illustration on page 322 it is seen thriving near to some old "May" trees, which this year were loaded with their heavily-scented flowers. The picture was really very striking, long sprays and branches of the Hawthorn, well studded with flowers, hanging so near to the rosy trusses of the Rhododendron. The photograph was taken at Ken View, Highgate, N. C. TURNER.

THREE INTERESTING FLOWERING SHRUBS.

IN Hedysarum multijugum we have one of the handsomest of our summer-flowering shrubs, and one worthy of inclusion in every collection, as the flowering period is extended over a considerable length of time owing to the plant producing a succession of its leguminous flowers. These are a delicate shade of red, and from 6 inches to 9 inches in length. This shrub is of somewhat straggling habit, and is best trained to a stout stake. It attains a height of about 5 feet and throws up suckers from the base, which enable the plant to be readily propagated. With us it is quite hardy, and never fails to flower freely. It is a native of Mongolia.

Raphiolepis japonica has flowered remarkably well with us this season, and is a most attractive subject for the front part of the shrubbery when given a sheltered though sunny position. A native of Japan, this evergreen shrub is none too hardy in some localities during a severe winter. It is of dwarf, sturdy habit, and forms a good plant for a restricted area, such as under a retaining wall or on a terrace border. The pure white clusters of fragrant flowers last in good condition for quite a long time, and are deliciously scented.

Of the many species and garden varieties of the Philadelphus or Mock Orange now in cultivation, Philadelphus microphyllus is certainly worthy of inclusion. With us in mid-June it was a mass of small white flowers, which are exceedingly fragrant, thus making the plant doubly attractive. It is not nearly so vigorous in growth as many of the others, but forms a compact bush, has minute foliage and is exceptionally floriferous. E. BECKETT.

Aldenham House Gardens, Elstree.

BUDDLEIA COLVILLEI IN SCOTLAND.

THIS handsome shrub, a fine subject for the wall, does not, as a rule, flower freely in Scotland or the North of England, although there are favoured gardens in which it is more successful than others—not that there is any real doubt as to the hardiness of the plant itself, but the trouble lies in the injury done to the buds in spring. The past spring has been unusually favourable, and a fine plant in the gardens of Mr. W. D. Robinson-Douglas at Orchardton, close to the sea in Kirkcudbrightshire, is giving a considerable display of bloom. It is on a south-west wall and in a sheltered position S. ARNOTT.

THE GREENHOUSE.

POTTING CYCLAMEN.

PLANTS raised from seeds sown last September will now be forward enough for placing in their flowering pots. These plants will be in full bloom in November next if they are carefully cultivated from now onwards. Fibrous loam, which has been cut and stacked for about four months, two parts; leaf-soil, free from bits of stick; and dried cow-manure, two parts, with sufficient sand to render all porous, make a good compost. Oak or Beech leaves gathered last winter, and which have not decayed much yet, may be placed on the crocks, and a small quantity of fresh soot dusted on the leaves before any compost is put in. Plants now growing in 3-inch pots should be put in 5-inch ones, and those in 4½-inch pots in 7-inch ones. The potting must be moderately firm, the pressure being by the fingers alone. Use the compost while it is in a medium state of moisture, place the newly-potted plants in a cool frame on a bed of clean ashes and, if the weather is bright, give a thorough syringing at once and lightly shade the glass. The following day, if the weather is still warm, water the plants; if it be cool and dull, do not water the soil before the third day. After the first watering do not give any more through the watering-can until the soil is once more becoming dry, but syringe the plants every day and keep the bed of ashes in a nice moist state. There must be no feeding of the plants before the pots are well filled with roots; then clear soot-water, clear liquid manure and approved concentrated manures may be given, sparingly at first. Occasional syringings with clear weak soot-water improve the condition of the leaves. If the frame faces due south, some light shade is necessary during the hottest part of the day; but it is best to have the plants in a frame facing the north, then shading will not be required and the plants will receive the full light which they really need.

Old corms are not profitable, as a rule, but some cultivators like to grow them on for several years. Where this is the case, it is a good plan to make up a bed of sifted leaf-soil and sand in a low frame and to plant out the old corms in it. Keep the frame close for a month or so and the compost moist, and new leaves will grow freely; then lift and pot the corms. B.

A WELL-GROWN SCHIZANTHUS.

THE illustration on page 320 of a Schizanthus is from a photograph taken on May 19. The seed was sown on August 27 last year, and the seedlings grown cool, frost only being excluded from the houses. The plant, when the photograph was taken, measured 7 feet 3 inches in circumference. I consider it invaluable for greenhouse decoration and cut flowers. M. BUNTING.

Woodbank, White Abbey, County Antrim.

THE FLOWER GARDEN.

LILIUM COLCHICUM.

LOVERS of the Lily find in the varieties of Lilium monadelphum some of the most beautiful plants of the regal race to which they belong, while the satisfactory manner in which they grow, when they have reasonable treatment, at least, renders them of the highest value for garden decoration. The nomenclature of the varieties is rather obscure, but the variety figured on the previous page, photographed in the Scottish garden, was received from a reliable source under the name of L. colchicum, which is, the latest authorities tell us, a form of L. monadelphum, szovitzianum being another good one. Even the Lily sold as colchicum varies much, as do all the monadelphum Lilies, and this one is a handsome variety of erect growth and bearing good heads of large shapely flowers of a pretty canary yellow.

Its cultivation is easy, seeing that it can be grown in the ordinary border, although it is all the better for having a little herbage about its base. It is perfectly hardy and is not fastidious as to soil. The plant illustrated has been in its present position in ordinary, rather dry loam for about two years. It is about 4 feet high, and is really handsome when in bloom. Bulbs should be planted 4 inches to 6 inches deep.

Dumfries. S. ARNOTT.



A RARE BRITISH ORCHID: CYPRIPEDIUM CALCEOLUS.

A RARE BRITISH ORCHID.

(CYPRIPEDIUM CALCEOLUS.)

AMONG the several hardy Cypripediums, C. Calceolus holds a prominent place. Like most of its relatives, it delights in half shade and moisture, though it must be in a well-drained position, as stagnant water is harmful to it. It is one of the few Slipper Plants which appreciate lime in the soil, either in the form of limestone or old mortar rubbish. Early in the year the new shoots may be seen just emerging from the earth, and with the advent of April they begin to push up rapidly, and usually early in May from the soft green foliage the beautiful flowers appear. The sepals and petals are of a rich chocolate colour, while the lip is pure yellow. Provided the weather is good, the blooms last a considerable time, and a group of these charming native plants is very pretty. It should be borne in mind that most of the Orchidaceæ have very brittle roots, and the utmost care must be exercised in planting not to damage these, as they break very easily if subjected to anything but the tenderest treatment.

REGINALD A. MALBY.

Woodford, Essex.

SWEET PEA NOTES.

THE SHOWS.—The exhibition season is now well under way, and the flowers that have been shown at several of the earlier gatherings have been of conspicuous excellence. Let us trust that this condition of affairs will be maintained right on to the last. It is early yet to express a definite opinion, but up to the present there has been a refinement of quality that should satisfy even the most fastidious of critics. As far as my own experience goes, there have been fewer flowers staged with double standards, and this notwithstanding the fact that a meeting of the members of the National Sweet Pea Society, in the profundity of its wisdom, decided that double standard flowers should not be penalised at exhibitions during the present year.

PACKING AND PICKING FLOWERS.—I met a man the other day from the neighbouring county of Cambridgeshire who has decided not to compete at the "National" again because he cannot get his blooms up in perfect condition. At home they are immeasurably superior to any that win the medals and cups. He is quite sure of this because he has been to see for himself, and he has proved to the last degree that, if his flowers had only been in good trim when the judges came round, he would have scored all along the line. Sceptical readers will probably smile knowingly, and mentally compare the geese and the swans; but, assuming for a moment that the man is right, we are forced to the conclusion that there is something radically wrong with his packing or the stage at which he gathers the blooms. Advice has been repeatedly given that if flowers are to travel satisfactorily they must be packed firmly, must be packed

dry, and that, as far as possible, air must be excluded from them. These are such elementary points that the particular man, an experienced gardener and exhibitor of other produce, would surely be aware of their great importance. We are, then, forced to the conclusion that he does not gather right. He has a distance of less than 100 miles to travel and his flowers will never come up after unpacking; others can gather, pack, travel 400 miles or even more by land or sea, or both, unpack and stage bunches which look as fresh as if the flowers had only been off the plants for a matter of two or three hours. The secret must lie in gathering at the precise moment that will allow the blooms to come to perfection three seconds before the judges commence to make their awards. Timing, then, of the flowers that are to be gathered, as well as of the plants that are producing them, is an important detail in the education of the successful exhibitor of Sweet Peas, and until he has mastered it there can be no doubt that he will never rank among the dazzling stars. Flowers that are gathered and placed straight into water will grow considerably, even coming to a larger size than they would have done had they remained on the plants, and if they are packed when they have had their fill and immediately put in water again after unpacking, will come to perfection, provided that the timing were correct to allow of development. It is nothing to have blooms off the plants for twenty-four and often double that number of hours and then be of supreme quality. My Cambridgeshire acquaintance must decide that his education is not finished, and should take a few lessons from one of the cracks if he can get them.

MANY THANKS.—I hereby propose, second and carry without a dissentient voice a vote of thanks to Mr. C. Shaw of Boquhan Gardens, Kippen, Stirlingshire, for his kindly expressions of appreciation of my notes in THE GARDEN. Praise such as his falls sweetly on my ears, and I become more and more friendly with him when he expresses the hope that I shall achieve immortal fame by winning the £1,000 prize. However, I shall not do that, and the only reason for my failure will be that I shall not be showing for it. When I am judging, if I recognise my generous correspondent's flowers, I will register my vote in his favour if they are worth it. I am sure they will be, or the Editor would not have praised them as he did, and I am equally sure that I shall not recognise Mr. Shaw's bunch among the 250,000 which are to be shown, so he must not count upon my active assistance. A. B. ESSEX.

DAHLIAS IN NEW ZEALAND.

THROUGHOUT the whole of New Zealand this season has not been all that the Dahlia-grower could desire. It has been one of exceptional dryness, and many of the plants have shown unmistakable signs of the want of water. Notwithstanding, some good blooms have been shown by those who have taken good care of their plants. It has been the consistent grower who has come out on top, and the occasionally brilliant one has been left far behind. The month for planting—November—was an exceptionally dry one, and it was not until nearly Christmas that the plants made any real growth. January and February were again dry, and unless plenty of water was used no flowers were seen on the plants; in fact, at shows held during February very few flowers were to be seen. With a good rainfall in the early part of March, flowers came in great quantity, and some of them made up in size and colour for that which was lacking in the early part of the year.

Very few new seedlings of any promise were to be seen, with the exception of a really good white Cactus variety which was shown at the Auckland show by Messrs. Bennett and Green. These same growers also showed a magnificent flower of Model, yellow, with which they gained the championship. The Hawkes Bay show, held in the middle of March, is always one where plenty of good blooms are to be seen, and this year's show was no exception to the general rule. The champion here again was a yellow, the well-known Glory of Wilts. Other good flowers were Ivernia, Clincher, Leah Whitehead, Snowdon, Snowdrift, Lucifer, Thos. Parkin and that everlasting white, Florence M. Stredwick. I think when the raiser gave us this flower he should have had a monument erected to his memory. It is one that out here never fails. C. H. Curtis is another good one that is a very consistent bloomer. Mrs. C. T. Richardson is finding favour on account of its floriferousness and the size of its flowers.

One point that is very noticeable in the later varieties is their length of stalk and habit of standing well above the foliage. Few growers of Cactus Dahlias out here will look at a flower if it is hidden by leaves. What is wanted is a bloom that is a good garden flower, and also one that can be used for showing at the same time. Chas. Mather and that good old flower, J. H. Jackson, are examples of what I mean. Clara was a flower that took my fancy at the Hawkes Bay show. It is a light suffused pink. When is a really good pink coming out? It is very much needed. We have good reds—Advance and Flame, for instance—and a good mahogany-coloured one in Dreadnought, but so far I have not seen a real pink.

The flowers at the Palmerston show were poor, with the exception of Mrs. F. Grinstead and Crépuscule. At Fielding, Clincher and Snowdrift were the best. At the latter show I met a very enthusiastic exhibitor, who had brought his tubers out from England when he came, and was surprised to find that we had some up-to-date varieties out here. The best of his lot were Kahki and Winsome, though he had a few plants, not flowering, of some newer ones.

This season has been a very good one for ripening seed, so we hope to raise something next year that will be much sought after. Many growers are making a careful study of hybridising, and have quite given up the old haphazard methods of using any seed they can get. FRANK MASON.

Whakaronga, New Zealand.



RHODODENDRON CYNTHIA WITH A NATURAL BACKGROUND OF "MAY" BLOSSOM. (*See page* 320.)

DAFFODIL NOTES.

LIFTING BULBS.

A FEW simple cultural hints may not be amiss to some readers at the present season. A very great deal depends upon what is done now. Those who want the very best results must not think that now that their Daffodil plants have gone to sleep they may do the same. In almost every collection of any size there is always some change to be made. Some bulbs will have to be lifted, even if others are going to be left in the ground a second year. Then, again, there are now an increasingly large number of seedling-raisers, and they will very likely have some little bulbs which have done their two years in the seed-pans and now want transferring to the open border.

Let me deal with these first, because there is not much to be said about them. The one and only thing is, first of all, to get a bed made in some part of the garden where they may be planted and allowed to remain without being disturbed for two years. This should be "double dug" as deeply as possible, and some bone-meal, and in old, much-used soils a certain amount of lime should be added. This last expedient is of immense benefit, and should never be omitted. Then, when this bed is ready, the little seedlings should be very carefully turned out of the pans

ROYAL HORTICULTURAL SOCIETY'S SUMMER SHOW.

OWING to the beautiful grounds of Holland House not being available this year, this important exhibition was held on Tuesday, Wednesday and Thursday last at Olympia. The experiment of holding a show such as this in so large a building was fully justified, and the exhibition was an unqualified success. Viewed from the gallery, the hall presented a picture of rare beauty, Sweet Peas, Roses and herbaceous flowers being exceptionally good. The various styles of gardens arranged by such firms as Messrs. J. Carter and Co., R. Wallace and Co. and J. Cheal and Sons were the finest attempts of the kind ever seen in this country. To the Rev. W. Wilks (secretary of the society), Mr. S. T. Wright (superintendent of the show), Mr. Frank Reader and Mr. Plowman we desire to express our thanks for services freely rendered in enabling us to report the show.

HARDY PLANTS.

Messrs. R. W. Wallace and Co., Colchester, arranged one of the most fascinating exhibits in the show, the general idea being that of a combined rock, water and wall garden, with adjacent flower-borders arranged with much skill and forethought. Viewing the arrangement from its immediate front, one saw grass banks and water pools, the latter bordered with Japanese Irises and Spiræas, a little further on appearing a low retaining rock wall well and suitably planted; and yet again a flat-terraced forecourt in grass, and flanking it at right and left splendidly-arranged borders.

Messrs. William Cutbush and Sons, Highgate, N., had a superb group of an entirely different character, the prevailing idea being that of a picturesque water garden, which was carried into effect with admirable taste and skill. The water pools with Lilies was exceedingly well done, the handsome tufts of Nymphæas in flower appearing well. Japanese Irises, Gunneras, Bamboos, bold Senecios, Ferns, Astilbes, Eremuri and the like were all happily disposed.

The Japanese garden arranged by Messrs. James Carter and Co., Raynes Park, S.W., was of a perfectly unique character, and one of the most striking features of this great gathering. No pen-picture could adequately portray the beauty and naturalness of the scene. To say that the exhibit in matters of detail left nothing to be desired would hardly be bare justice, since here was seen Art blended with Nature, not only in a pleasing and effective manner, but in a way suggestive and possible in many an English garden. That this particular phase of gardening is a visitor from the East intending to take up permanent residence here we have not the least doubt, and as pioneers in this particular phase Messrs. Carter are taking a line of their own.

Mr. Maurice Prichard, Christchurch, Hants, arranged an exhibit of a water garden and herbaceous border in the spacious annexe, some leading features being Japanese Irises, Spiræa palmata, Day Lilies, Kniphofia rufa, Larkspurs, Isatis glauca and Bamboos. Cut fruiting sprays of Coriaria japonica were most effective, such things as Eremuri and Campanulas being also well displayed.

Messrs. T. S. Ware, Limited, Feltham, arranged a rock garden exhibit, in conjunction with water, planting tastefully and well. Alpine Poppies, Ferns, Thymes, Veronicas of the sub-shrubby set, Œnotheras, Campanulas and the lovely pink-flowered Erythræa diffusa (glorious in an extended colony) were a few among the many plants employed.

Messrs. Pulham and Son, Oxford Street and Broxbourne, had a fascinating exhibit of rock and water gardening in conjunction with a pergola and Fern bank, the whole deftly arranged and dove-tailed together in the most natural manner. The great sandstone blocks were perfectly disposed. The paved pathway of the pergola might have existed for years, so beautiful and natural and old was the entire arrangement.

Messrs. Phillips and Taylor, Bracknell, Berks, arranged a small water garden scene with Irises, Nymphæas, Funkias, Spiræas and the like.

From Crawley Messrs. Cheal and Sons brought material for a rock garden arrangement, which they displayed with excellent taste and much naturalness. Employing sandstone in a correct manner, the many groups were effectively planted throughout. To attempt to individualise when all is so good is a difficult task, since we have not only to contend with an excellent rock garden, but with summer-house and arbour, pergola and border, all delightfully arranged and very suggestive of gardening in a real estate.

The rock garden exhibit from Messrs. George Bunyard and Co., Maidstone, was, in conjunction with flower-borders, very finely arranged. Ferns, choice alpines and good herbaceous subjects abounded, and such things as Carpenteria californica, Campanula Moerheimii, C. persicifolia humosa, Silene Pumilio (with rosy blossoms akin to S. Armeria), Campanula lactiflora and other things were seen to advantage. A pond of Nymphæas, with Irises alongside, also afforded a good feature.

Mr. R. C. Notcutt, Woodbridge, showed, in conjunction with a fine collection of Roses, large masses of herbaceous plants, Lilies, Gaillardias, Potentillas, Irises, early Gladioli and Kniphofias predominating.

Messrs. Whitelegg and Page, Chislehurst, showed masses of Lilies, Campanulas, Larkspurs, Galegas, Statices, Violas and other showy plants. Lilium candidum was very fine.

Messrs. T. S. Ware, Limited, Feltham, Middlesex, displayed a showy bank of hardy flowers, notably Larkspurs, Echinops, Lilies, Aconites, Achilleas, Malvas, Eryngiums and other good plants.

The Craven Nursery, Clapham, Lancaster, had a charming alpine exhibit, in which the alpine moraine gardening was carried into effect. In this latter way we noted Campanula cæspitosa pallida, C. Zoysii, C. speciosa (approximating in its lovely erect bells to C. Allionii), with Papaver alpinum and Dryas octopetala, making a most fascinating display.

Messrs. H. J. Jones, Limited, Lewisham, showed a very fine lot of herbaceous Phloxes, of which Iris, Antoine Mercier, Dr. Charcot, Meteore and May Campbell were a few. The plants were superbly flowered, and in a cool, sequestered spot were most effective.

Messrs. R. H. Bath and Co., Limited, Wisbech, had a particularly fine bank of Delphiniums, the creamy Vision d'Or being one of the most distinct in a big lot.

Messrs. G. and A. Clark, Limited, Dover, had an extended table of Alstrœmerias, Campanulas, Gaillardias, Spiræas, Iris aurea, Eryngiums, Potentillas, Eremuri, Scabiosa caucasica, Larkspurs and the like. Gilia coronopifolia was very fine, while a pretty bit of rock gardening afforded much interest and pleasure.

Messrs. Kelway and Sons, Langport, Somerset, had a delightful arrangement of Larkspurs on either side of a light Bamboo pergola, the effect being very pretty. A few of the more distinct were Dusky Monarch, Lady Georgina Legge, (azure blue), Rev. W. Wilks (violet purple), Beauty of Langport (primrose), Geneva (celestial blue and white eye) and Knight of Langport (like the variety Rev. E. Lascelles).

Mr. James Box, Lindfield, Sussex, had a capital display of cut herbaceous subjects, chiefly, however, of Larkspurs, Iris Kæmpferi, early Gladioli, Eremuri, Pentstemons and the like, all nicely arranged.

Messrs. Barr and Sons, Covent Garden, W.C., arranged a great bank of herbaceous flowers in the cut state. Masses of Lilies, Salvias, Larkspurs, Alstrœmerias and early Gladioli were prominently displayed. A pretty effect was secured by the use of dwarf Campanulas, such as turbinata, pusilla and their varieties, Iris aurea also being a notable plant.

Messrs. Fred Smith and Co., Woodbridge, had a showy group of hardy flowers, of which Scabiosa caucasica, Alstrœmerias, Lilium candidum and Iris aurea were notable features.

Messrs. William Wells and Co., Merstham, Surrey, displayed an admirable lot of Phloxes and Pentstemons in many shades of colour.

Messrs. B. Ladhams, Limited, Southampton, displayed Pinks, Dianthus Napoleon III., Campanula persicifolia alba coronata, Scabiosa caucasica and Œnothera speciosa grandiflora, with Gaillardias, to advantage.

The Guildford Hardy Plant Nursery had a capital lot of Primula capitata, Nierembergia rivularis, Lavendula compacta, Cistus algarvensis Crinum capense and Lysimachia punctata in a large and comprehensive group.

Messrs. Seagrave and Co., Sheffield, had a nice lot of Violas admirably arranged in sprays.

Messrs. G. Gibson and Co., Bedale, had many showy perennials, chiefly Larkspurs, Scabiosa caucasica, Campanulas, early Gladioli and Thalictrum aquilegifolium in a large and good gathering.

Messrs. W. and J. Brown, Stamford, had many beautiful plants, Ostrowskia magnifica with a dozen flowers being the most conspicuous example.

Messrs. John Forbes, Hawick, Limited, displayed Phloxes, Larkspurs and Violas.

Messrs. G. Jackman and Sons, Woking, had a huge exhibit of Roses and herbaceous flowers, the latter embracing Lilies, Larkspurs, Phloxes, Iris Kæmpferi, Verbascums, Alstrœmerias and other showy things.

Messrs. Gilbert and Son, Bourne, Lincs, displayed Lilium Martagon in variety, L. testaceum and others.

Messrs. Gunn and Sons, Olton, Warwickshire, set up a glorious bank of herbaceous Phloxes, demonstrating the worth of these invaluable subjects at this early period of the year. Iromie (salmon), May Campbell (pale salmon, white eye), Coquelicot (scarlet), Le Mahdi (purple), Countess of Ilchester (deep salmon), Violet (a very descriptive

name) and Tapis Blanc (pure white) were among the finest in a really splendid lot.

Mr. Amos Perry, Enfield, brought a wonderful display of Delphiniums, arranging the varieties in bold groups and bank-like masses in the best kinds. It is not possible to describe the brilliant effect of this blue bank of flowers, which, arranged on the two sides of the exhibition, gave a wonderful display. Geneva Petro Hamel (royal purple), Persimmon (azure blue), King of Delphiniums (very dark), Lamartine (still deeper in colour), Devonshire Cream, Carmen (rich in purple and violet, tall and stately in bearing) and Duke of Connaught (gentian blue and white eye) were among the finest of these stately border flowers, which we cannot too highly praise. A handsome margin of hardy Ferns constituted a cool and refreshing foreground to a sumptuous gathering of flowers.

Mr. H. Hemsley had a small rockery exhibit, arranging it prettily with many diverse plants, as Campanulas, Mazus Pumilio, Orchises, Primulas. Hypericum Coris, Thymus corsicus, Erythræa diffusa and other interesting plants.

Mr. G. Reuthe, Keston, Kent, had a most interesting gathering of hardy plants arranged in undulated bank-like fashion. Of the more remarkable examples we noted the yellow-flowered Saxifraga brunoniana, Primula suffruticosa, P. capitata, P. littoniana, Mitraria coccinea, Desfontainea spinosa, Saxifraga squarrosa, Allium narcissiflorum, Campanula raddeana, Carpenteria californica, Orchises, Sedum Albertii, Lomatia ferruginea, with many cleistogamic flowers, Gentiana lutea var. flavescens, Lilium Brownii, Erica cinerea and a great variety of other interesting and beautiful plants.

Mr. Clarence Elliott, Stevenage, had a rockery exhibit in which Campanula pusilla Miss Willmott, a very beautiful plant in pale blue, was displayed in 3 feet wide patches. Sedum liebmannianum, a sub-shrubby S. album; Campanula pulloides, Saxifraga Aizoides aurantiaca and Campanula Stansfieldii were other notable plants.

Messrs. Heath and Sons, Cheltenham, had a delightful rockery exhibit, in which Lysimachia Henryii (very charming in yellow), white Campanulas, Primulas, Dianthi, Nuphar and Edraianthi all played a part in the completing of a most satisfactory whole. Digitalis ferruginea was quite an interesting plant.

The Misses Hopkins, Shepperton-on-Thames, arranged a charming rockery bank in conjunction with a water garden, arranging alpines, water and water-side plants in the greatest profusion. The dwarf Campanulas were seen in delightful masses, and there were many other plants of interest and merit.

Messrs. F. Lilley and Co., Guernsey, brought early Gladioli, Iris Kæmpferi, Alstrœmerias and Sparaxis pulcherrima.

Mr. W. J. Godfrey arranged a capital assortment of Canterbury Bells, Violas and Scabiosa caucasica.

Messrs. Rich and Co., Bath, brought Phloxes, Campanulas and other hardy flowers, such as Pentstemons, Violas and Potentillas.

Mr. Howard Crane, Archway Road, Highgate, N., pleased a large number of visitors by his admirable display of Violas and Violettas, delightfully arranged in pans of sand in the most natural manner. There were nearly a hundred vases and pans of these flowers displayed. Maggie Mott, Kitty Bell, Royal Blue, May (rich golden), Duchess of Fife, Patience, and Marie (purplish crimson) were among the best of the Violas; while Diana, Sonny Fagg, Cynthia, Rock Yellow, Forget-me-Not, Hilda, Vestal and Violetta were most charming in the latter group.

ROSES.

Roses from Mr. Charles Turner, Slough, never fail to interest the garden-loving public, and on this occasion they were represented by garden sorts in great variety. Ramblers of all kinds were there to please, and many favourable comments were made. The Lyon Rose was much admired, this fine Hybrid Tea calling forth much praise.

Messrs. Benjamin R. Cant and Sons, Colchester, had a fine little group of Roses, embracing garden and exhibition sorts in great variety. Of the former, Gottfried Keller was a very fine single. Many fine quality exhibition Roses were in evidence, and were much admired.

Roses from Messrs. Alexander Dickson and Sons, Limited, Newtownards, County Down, were set up in Bamboo stands in rather a sparing way. There were several stands of new and choice exhibition Roses. Of the newer Roses, Duchess of Wellington, Carine, Harry Kirk, Mrs. Walter Easlea, Mrs. Fred Straker, H. V. Machin, Mrs. Cornwallis West and Duchess of Westminster are all sorts that more will be heard of in the near future.

Messrs. H. Cannell and Son, Swanley, Kent, made an exhibit of their fine evergreen pergola or pillar Rose, American Pillar; this is a distinct acquisition.

Mr. Frank Cant, Colchester, had a large array of Roses of a comprehensive character arranged on a table. The Lyon Rose was superb, and among other Roses of good colour were Le Progrès, Mme. Melanie Soupert, Betty, Mrs. A. R. Waddell, Mrs. A. R. Goodwin, Mrs. Alfred Tate, Elizabeth Barnes, Jacques Vincent, and quite a large number of exhibition Roses.

From Mr. George Prince, Oxford, came an excellent table group of Roses. Garden and decorative sorts were paramount in this fine display. The new Juliet, Lyon, Marquis de Sinety and White Killarney were very conspicuous. There were also an abundance of beautiful garden Roses in infinite variety, such as Irish Elegance and other popular kinds.

A unique series of groups of Roses were arranged by Messrs. Paul and Son, Cheshunt, many of which flowers were set up in vases. There were bold and handsome bunches of such sorts as Lady Ashtown, Lyon Rose, Pharisaer, Marquis de Sinety, Hugh Dickson, Mrs. W. J. Grant, Mme. Abel Chatenay, Mrs. S. Crawford, Frau Karl Druschki, Rev. A. Cheales and Mrs. Theodore Roosevelt. Charming plants of Shower of Gold were much admired, and numerous ramblers and other garden Roses were freely displayed.

Messrs. W. Paul and Son, Limited, Waltham Cross, had a very large and comprehensive display of most beautiful Roses. Cut blooms formed the foreground, and lovely weeping Roses, as well as other beautiful specimen plants, were largely in evidence. Of the latter, Tausendschön, Hiawatha, American Pillar, Lady Gay, Dorothy Perkins and other standard ramblers were very fine. Of the cut blooms arranged in moss-covered baskets we noticed Mme. Jules Grolez, Mme. Ravary, Le Progrès, Joseph Hill, Mrs. A. Waddell, Mme. Leon Pain, Prince de Bulgarie, Richmond, Pharisaer, Kaiserin Augusta Victoria, Lyon Rose, Celia, Cynthia, White Killarney and many others equally good.

A huge garden of Roses was the form of the group staged by Messrs. Hobbies, Limited, Dereham. Pyramids, weeping Roses, standards, arches of Roses and every known device to the Rose-grower was utilised to show the Queen of Flowers at her best. This was a fine ideal, and was worthy of repeated effort.

Roses from Messrs. R. Harkness and Co., Hitchin, formed a pleasing feature of the show, but the flowers suffered sadly as the day progressed. Chiefly decorative and garden Roses were shown in this interesting group, set up in vases and Bamboo stands.

Messrs. W. Cutbush and Son, Highgate, N., had a large group of miscellaneous plants, which were backed and interspersed with numerous specimen rambler Roses, in which Hiawatha figured prominently.

A number of Rose exhibits were staged in the gallery, and it was a matter for regret that so many good exhibits, not only of Roses, but also of Carnations and herbaceous plants, were in a position overlooked by most visitors.

Messrs. S. Bide and Sons, Farnham, Surrey, had an extensive collection of Roses of all sections. The flowers were of good quality, but, unfortunately, suffered from the effects of the sun in the unshaded part of the gallery.

Messrs. George Jackman and Sons, Woking, showed a collection of Roses, including many ramblers and fine vases of Mrs. W. J. Grant, The Lyon Rose, Mme. Abel Chatenay, Lady Hillingdon and Liberty.

Roses shown by Messrs. Hugh Dickson, Belfast, were of exceptionally good quality. Among the best of them were G. W. Black, Miss Cynthia Ford, W. K. Hendrick, W. R. Smith and Countess of Shaftesbury.

A grand bank of Roses was shown by Mr. John Mattock, New Headington, Oxford. The Lyon Rose was remarkably good in this exhibit.

Roses were also shown by Messrs. A. A. Walters and Son, Bath. In the background were tall spikes of the deep blue Delphinium Rev. E. Lascelles.

Roses and herbaceous plants were shown by Messrs. W. and J. Brown, Peterborough. Among the best of the Roses were Dean Hole, Florence Pemberton and White Maman Cochet.

MISCELLANEOUS STOVE AND GREENHOUSE PLANTS.

A huge group of stove and greenhouse plants, chiefly composed of foliage plants, came from Mr. L. R. Russell, Richmond. Crotons, Dracænas, Palms, Caladiums, Anthuriums, &c., were grouped in a pleasing way, and were much admired.

Caladiums from Messrs. John Peed and Son, West Norwood, S.E., are always a noteworthy feature at these shows. A well-grown lot of plants were in evidence on this occasion, among which Oriflamme, Duchess of Teck, Duke of Teck, Raoul Pugno, C. E. Dahle, Mikado and Mme. J. R. Box were especially good.

A large group of miscellaneous flowering and foliage plants from Messrs. James Veitch and Sons, Limited, Chelsea, was an attractive feature of the show. Here were displayed Orchids in variety, very fresh and beautiful, Kalanchoë flammea, Cannas, Begonia corallina and a very fine assortment of the better stove and greenhouse foliage plants. A table group of miscellaneous plants also came from Messrs. James Veitch and Sons. This embraced such subjects as Solanum Wendlandii, Fuchsias Elegance, Lustre, Mrs. Marshall, Rose of Castile Improved, Olympia, General Grenfell, Mrs. Todman and others, besides Cannas, Gloxinias and the pretty Amphicome Emodii.

A beautiful collection of Ferns and kindred plants, both British and exotic, was a wonderful exhibit of the Fern-grower's skill. Nephrolepis in charming variety, Polypodiums, Davallias, Gymnogrammes, Blechnums in variety, Brainea insignis and a host of magnificent plants pleased many visitors.

A splendid group of Zonal Pelargoniums was exhibited by Messrs. H. J. Jones' Nurseries, Lewisham.



NEW HYBRID FREEZIAS.

Mauve, Amethyst.
Magenta, Le Phare.
Rose, Lady Rose.
Crimson, Glow.

Hudson & Kearns, Ltd., London, S.W.

The trusses of flowers, borne on well-grown plants, were very handsome and the colours pleasingly diverse. T. Day, Fred Gulliver, Gwynn Powell, Alf Simpson (very fine), Will Cymric and Paul Crampel were a few of the better things. Choice hybrid Streptocarpus, a crown of cut Gloxinias, double and single Petunias and a primrose-coloured Calla, besides other plants, made an interesting exhibit.

Clematises from Messrs. George Jackman and Sons, Woking, Surrey, were represented in a magnificent group by trained plants. Of the Clematises we noted lanuginosa candida, as well as Mme. Grange, Sensation, Beauty of Worcester, La France, Mrs. Cholmondeley and a number of well-known and new sorts. This fine group was fronted with Hydrangeas and Maidenhair Ferns.

Another exceptionally good group was exhibited by Messrs. J. Hill and Sons, Lower Edmonton, Middlesex. This comprised specimen exotic Ferns including Gleichenias in variety, Tree Ferns, splendid specimens of Davallias in wondrous variety, Adiantum Hendersonii in fine form, the Elephant's-ear Fern (Hymenodium crinitum) in rare form, and an endless variety of Ferns for which most visitors showed their keen appreciation.

A table group of Adiantum farleyense was an attractive exhibit as staged by Mr. A. A. Fabius, Emsworth. The plants were pleasingly grouped, the pale green fronds of this beautiful Fern contrasting effectively with Pterises and Asparagus.

Messrs. John Peed and Son, West Norwood, S.E., had a long table group of Gloxinias arranged in one of the galleries. The colours were pleasingly diversified and the plants fresh, the flowers and markings being charming. Streptocarpi were also interesting and good.

Cut Zonal Pelargoniums from Mr. Vincent Slade, Taunton, Somerset, were represented in a goodly array of varieties and colours. Good bunches of Ivy-leaved kinds were also in evidence. Two good sorts of the latter were Miss Popham and Queen of Balkong. Of the Zonals, Arabic, Countess of Jersey, Helen Countess of Radnor and Salmon Paul Crampel were noteworthy.

Double and single flowered Zonal Pelargoniums were shown in attractive bunches by Messrs. Seagrave and Co., Sheffield, and the varieties were those of the newer and better sorts.

New Acalyphas and new Fuchsias were shown by Mr. Gebrüder Teupel, Quedlinburg, Germany. These embraced some new and very interesting forms of these two subjects, of which the future will have much to say respecting their merits.

A table group of choice Ferns and kindred plants was put up by Mr. H. N. Ellison, West Bromwich. Nephrolepis, Davallias, Adiantum, Gymnogramme and other pretty foliaged plants were much admired. The pretty new Dracæna Souvenir de François Buysse was noteworthy, as were also pretty Gerberas.

SWEET PEAS.

Messrs. Sutton and Sons brought a very fine group of Sweet Peas from their trial grounds at Reading, the flowers throughout being of exceptional quality and exceedingly well staged. No fewer than 150 varieties were included, among the best of them being Eric Harvey, Mrs. Townsend, Mrs. A. Ireland, Marjorie Linzee, Sutton's Queen and Elsie Herbert.

Mr. W. E. Alsen, Denmead, Hants, staged a beautiful collection, the flowers being large and of good colour and substance. Notable among them were Mrs. W. J. Unwin, Mrs. Hugh Dickson, Asta Ohn, Moneymaker, Mrs. A. Ireland, Earl Spencer and Edrom Beauty.

The collection of Sweet Peas from Mr. James Box, Lindfield, Sussex, was a very fine one, the flowers being massed together rather heavily in their respective colours, all the best standard varieties being included in good form.

Messrs. Gilbert and Son, Bourne, Lincs, had an attractive display of Sweet Peas, the flowers being tastefully arranged in the rustic table decorations.

Mr. William Deal of Kelvedon had a small but attractive exhibit of Sweet Peas, Colleen forming a very attractive centre. Winifred Deal, Frances Deal, Scarlet Monarch and several unnamed seedlings called for special mention.

Messrs. John K. King and Sons, Coggeshall, put up a large and attractive stage of Sweet Peas, the flowers being tastefully arranged in tiers. St. George, Constance Oliver, Anna Lumley, Nancy Perkin and Mrs. George Charles, rich navy blue, were a few among many that called for special mention.

The small group of Sweet Peas from Mr. W. G. Lambert, Huntingdon, was of good quality, the blooms being clean and well coloured.

Messrs. S. Bide and Sons, Farnham, put up a large and comprehensive group of Sweet Peas, many excellent varieties being among them. The flowers were all of good quality, and the arrangement left little to be desired. Clara Curtis, America Spencer, Edna Unwin (Improved), Mrs. Townsend, Blue Belle (a lovely rich blue), Bertha Massey and Dainty Spencer were some that called for special mention.

Sir Randolf Baker, Bart., Blandford, Dorset (gardener, Mr. Usher), had a large exhibit of Sweet Peas in the centre of the building, the colour of the flowers being very good. Perhaps the blooms erred on the side of coarseness, and the arrangement was a little heavy, but viewed as a whole the effect was decidedly good.

Messrs. J. Carter and Co., Raynes Park, had a good lot of Sweet Peas in conjunction with other flowers, the blooms generally being of excellent quality and well coloured..

The stage of Sweet Peas shown by Robert Sydenham, Limited, Birmingham, were exceedingly well coloured and tastefully arranged. Such sorts as Thomas Stevenson, Edith Taylor, Miriam Beaver, Earl Spencer, Empress and Emperor added not a little to the brilliancy of this display.

Messrs. Dobbie and Co., Edinburgh, had a marvellous display of high-class flowers, these including a number of beautiful new ones as well as all the best of the standard varieties. Among the new kinds were Lady Knox (a lovely mixture of cream and buff, and which received an award of merit), Mary Campbell, Melba, Mrs. Cuthbertson, Mrs. Heslington and Red Star.

Messrs. Carter Page and Co., London Wall, had a very attractive display of Sweet Peas with other flowers, the arrangement being light and graceful and the colours of the flowers excellent.

Mr. C. W. Breadmore brought a very extensive and good lot of flowers from Winchester, the blooms generally being of good quality. Marjorie Linzee, Princess Mary, Iris, Aurora Spencer, Flossie Jeffery (very charming pale salmon pink and cream) and some Helen Pierce seedlings were a few that called for special mention.

Messrs. J. Stark and Son, Great Ryburgh, put up a large and attractive group of blooms, George Stark, Loyalty, Arthur Unwin and Maggie Stark being a few of the most prominent.

Messrs. Jones and Sons, Limited, Shrewsbury, staged a very extensive collection of Sweet Peas, all the best standard varieties as well as a number of novelties being included.

The Sweet Peas from E. J. Johnstone, Esq., Groombridge, Kent (gardener, Mr. A. T. Paskett), were of good colour and substance, most of the leading sorts being well staged.

Mr. J. D. Webster, Chichester, had Sweet Peas massed between festoons of Carnations, the flowers generally being clean and good.

Messrs. E. W. King and Co., Coggeshall, had a very large and beautiful display of high-class blooms, the festoons forming a very pretty feature, The Marquis, Clara Curtis, Anglian Orange, Anglian Blue, Elsie Herbert, Queen Mary and Mrs. W. King being a few of the best sorts.

Samuel Larkin, Esq., Haslemere, Surrey (gardener, Mr. G. M. Hale), had a small group of well-coloured blooms that were so arranged as to show off their individual beauty.

CARNATIONS.

From Mr. J. D. Webster, Chichester, came a small table group of cut Carnations, embracing several of the better popular sorts.

Carnations, Malmaison and Tree varieties, were set up in a gorgeous way by Messrs. William Cutbush and Sons, Highgate, N. Huge mounds of one variety were seen in excellent condition, and baskets and vases displayed many well-known sorts in capital form and condition. The Tree Carnations comprised Mrs. Fortescue (cerise pink, new), Countess of Bradford (new) and a new Perpetual-flowering Malmaison, Viscountess Goschen. Of other good Tree kinds, Rose Dorée, Afterglow, White Perfection, Beacon, O. P. Bassett (scarlet) and a host of other good things were shown.

The Thatcham Fruit and Flower Farm, near Newbury, was an illustration of what the ladies are doing in Carnation culture. Quite a number of stately vases were filled with the better and more popular sorts in general cultivation.

A capital table group of cut blooms was set up by Messrs. Young and Co., Hatherley, Cheltenham. Rose Enchantress, Enchantress, Cheltonia, May Day and Royal Purple were a few of the better sorts. The Hon. Lady Audrey Neeld, the new Perpetual-flowering Malmaison, was well shown in this group.

Carnations from Mr. James Douglas, Great Bookham, Surrey, were splendid. Mrs. Robert Gordon, John Ridd, Ellen Douglas, Mrs. G. A. Reynolds, The Golfer, Linkman, Sam Weller, Hercules and Mrs. Henwood were all excellent.

A group of excellent Malmaison Carnations was put up by Mr. Frank May, Houndswood, Radlett, Herts. They were set up in somewhat formal style, which detracted from the appearance of the group as a whole. Princess of Wales, Maggie Hodgson and Houndswood Beauty were the more conspicuous varieties.

A small collection of Carnations was exhibited by Messrs. R. H. Bath, Limited, Wisbech. President, Winsor, White Enchantress and other popular sorts were charmingly disposed.

Mr. Bertie E. Bell, Castel Nursery, Guernsey, staged a magnificent exhibit of lovely flowers, very fresh and of good colour. Enchantress, Rose Dorée, Britannia, Mrs. H. Burnett, Winsor, Alma Ward, Beacon and White Perfection were superb, and they were artistically displayed in vases, baskets and Bamboo stands.

A large and attractive exhibit also came from Mr. C. Engelmann, Saffron Walden, Essex. Carola, La Mode, Rex, Enchantress and many other popular kinds were pleasingly set up and much admired.

Malmaison Carnations were set up as a group of well-grown plants by Mr. W. M. Gott, Trenython, Par Station, Cornwall, an amateur grower. Mrs. Trelawney and Princess of Wales were the best of several varieties.

From the Somerford Nurseries, Christchurch, Hants, an attractive display of cut blooms was made. Set up in baskets in an attractive way, as well as in stately glass vases, the flowers looked very well.

Mrs. G. M. Ward (a fine cerise pink) was the variety in this exhibit that merited a special note of its excellence.

Mr. H. Burnett, Guernsey, staged a large and comprehensive group of cut blooms, set up most beautifully. Asparagus between the vases added to the attractiveness of the exhibit as a whole. Orpheus, R. F. Felton, Mikado, May Day, Niagara, Afterglow and White Perfection were all excellent.

A large and interesting array of cut blooms came from Mr. C. F. Waters, Balcombe, Sussex. The flowers were neatly disposed and the colours were good. Carola, the new cerise pink, Edith Waters, Ruby, Rose Pink Enchantress and Glendale were conspicuous.

Quite distinct from every other exhibit of Carnations was that which came from Messrs. Stuart Low and Co., Bush Hill Park, Middlesex. Vases and pottery were mounted on pedestals, which enabled this firm to dispose their flowers artistically. Lady Mary Hope, Maggie Nettlefield, King Oscar, the new seedling named The Colonel, and Princess of Wales were the better Malmaison varieties in this exhibit.

An exhibit from Mr. A. F. Dutton, Iver, Bucks, was good indeed, except that the table needed a covering other than the ordinary green canvas. The flowers were all arranged in tall, elegant vases, and were of capital quality. Britannia, Mrs. T. W. Lawson, Rose Dorée, Alvina, President Seelye, O. P. Bassett and Beacon were very fine; the flowers were fresh and of good colour.

A small exhibit of an interesting character was put up by Mr. H. Lakeman, Thornton Heath, Surrey. Border sorts, such as Linkman, Splendour, Miss Willmott and other beautiful varieties were charmingly displayed.

Malmaison Carnations from Mr. Charles Turner, Slough, were exhibited in a series of small groups in front of a large group of Roses. The plants were well grown, the flowers large and well coloured, and included such sorts as Lady Middleton, Malmaison, Maggie Hodgson, Mrs. Trelawney and Princess of Wales.

An excellent exhibit came from an amateur, Mr. E. J. Johnstone, Burrswood, Groombridge, Kent. With one or two exceptions the group of plants was made up of well-grown specimens of Malmaison Carnation Princess of Wales. Fronted with Maidenhair Ferns, the effect was pretty. From the same garden a table of cut Perpetual-flowering Carnations arranged in vases and Bamboo stands was an attractive exhibit.

BEGONIAS.

From Mr. A. Ll. Gwillim, Sidcup, Kent, came a long table of these plants in excellent form and condition. Handsome indeed were both double and single forms, some of the frilled sorts being particularly pleasing.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, made another of their extremely fine exhibits, chiefly composed of handsome double sorts and charming frilled single varieties. Of the double kinds, Violet Langdon, Royal George, Mrs. W. L. Ainslie, Black Knight, Lady Hunter, Beatrice Mabbett and Mamie Warburton were especially handsome and of good form.

Begonias from Messrs. H. Cannell and Sons, Swanley, Kent, were interesting, even though the variety was somewhat restricted. A good double white is Her Majesty; and other good white kinds worthy of note are Polar Star, Snowdon and Mrs. Matthews. A good double rosy red kind is Surprise.

A few Begonias were to be seen in the table group of Messrs. James Carter and Sons, High Holborn, W.C.

A really fine exhibit was that made by Messrs. Ware, Feltham, Middlesex. Especially fine was the double-flowered Lady Cromer, a wonderful flower, large and of good form. Others that were noteworthy were George Pike, Mrs. John Brinsmead, Marjory Tait, Lady Clifford, W. L. Ainslie, Laura Ashdown and Miss Beatrice Pardy.

FRUIT AND VEGETABLES.

Messrs. Sutton and Sons staged a collection of vegetables which was the admiration of all interested in these useful products. The centre-piece comprised a stand of Cauliflower White Queen; the heads were of perfect form and of useful size. The following vegetables were included: Potatoes Supreme, Acquisition and King Edward VII.; Tomatoes Satisfaction, Perfection and Winter Beauty (a capital trio); Cucumbers Delicacy, Peerless and Matchless: Cabbage Sutton's Favourite, with beautiful firm and perfectly-shaped hearts; and Carrots New Red Intermediate and Favourite. A first-rate collection of Peas was also shown by this firm.

A collection of indoor fruits worthy of the highest praise came from the gardens of the Duke of Portland, Welbeck Abbey, Worksop. The collection was of surpassing quality, admirably staged and in every way a credit to Mr. Gibson, the able head-gardener. Four varieties of Grapes were put up, viz., Buckland Sweetwater, Foster's Seedling, Black Hamburgh and Madresfield Court; Melons Royal Jubilee and Royal Sovereign; Peaches Dymond, Bellegarde and Hale's Early; Nectarine Lord Napier; Strawberries Waterloo and Laxton's Latest; Apples Lady Sudeley and James Grieve and Plum Jefferson.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, showed two new Cucumbers named Unrivalled and Cynosure. Both varieties were of good form, being quite uniform in shape and having very short necks.

S. Heilbut, Esq., The Lodge, Holyport, Maidenhead (gardener, Mr. G. Camp), sent a very fine assortment of fruit trees in pots, also Pine-apples. The Cherries Bohemian Black Bigarreau, Emperor Francis and Bigarreau Napoleon were particularly good, being of fine size and beautifully finished. Pine-apples The Queen and Charlotte Rothschild were much admired, moré particularly since these fruits are now so seldom grown.

The King's Acre Nurseries, Limited, Hereford, had a capital lot of fruit trees in pots. The trees were heavily cropped. Apples Red Astrachan and Lady Sudeley were very good.

Messrs. T. Rivers and Son, Sawbridgeworth, Herts, were represented by a magnificent collection of pot-grown fruit trees, all well cropped. The Thomas Rivers Peach was shown in first-rate condition, and was unquestionably the finest Peach in this exhibit. Cherries were also shown in grand form, especially the variety Ohio Beauty. Vines, such as Foster's Seedling, Primavis Frontignan and Black Hamburgh, carried good crops. Apple Lady Sudeley was shown in excellent condition.

A collection of Melons was shown by Cecil Raphael, Esq., Porter's Park, Shenley, Herts (gardener, Mr. A. Grubb). Among the best varieties shown were Hero of Lockinge and Frogmore Scarlet. From the same gardens came a magnificent collection of vegetables. Altogether this was a most meritorious exhibit.

A collection of vegetables was sent by H. S. Barton, Esq., Hewshott House, Liphook. Some of the vegetables were a little coarse and lacked the refined finish that is now attained by the most up-to-date exhibitors. The best features of this collection were Tomatoes Satisfaction and Best of All, and Peas Quite Content and Centenary.

Messrs. Laxton Brothers, Bedford, showed a fine lot of Strawberries in baskets, also their new hybrid fruit resembling the Raspberry, called the Laxtonberry. Among the best Strawberries were Fillbasket, Utility and Reward, three excellent varieties. The older favourites Waterloo and Givon's Late Prolific were to be seen in fine condition.

Messrs. Webb and Sons, Stourbridge, had a good display of Sweet Peas, with vegetables arranged in the foreground. Particularly noteworthy were Peas Paragon Marrowfat, Defiance Marrowfat and Pioneer; Cauliflower Peerless and Early Mammoth; Carrots Defiance, Intermediate and Wonderful; Tomatoes Emperor and Regina; Melons Peerless, Pride of Stourbridge and Epicure. Seldom have we seen vegetables and flowers shown together with such telling effect.

Messrs. Stuart Low and Co., Bush Hill Park Nurseries, Middlesex, showed Fig trees, Vines, Currants (red, white and black), all grown in pots. The Figs were well finished and of good size. The varieties White Turkey and St. John's were much admired.

OFFICIAL LIST OF AWARDS.

Coronation Cup.—Messrs. H. B. May and Sons, Edmonton, for Ferns.

Olympia Cup.—Messrs. William Paul and Son, for Roses.

Sherwood Cup.—The Duke of Portland (gardener, Mr. Gibson), for a collection of British-grown fruit.

Gold Medals.—Messrs. J. Carter and Co., Messrs. Charlesworth and Co., Mr. Hugh Dickson, Messrs. Dobbie and Co., Mr. Amos Perry, Mr. L. R. Russell, Messrs. Thomas Rivers and Son, Messrs. James Veitch and Sons and Messrs. R. Wallace and Co.

Silver Cups.—Sir Randolf Baker, Cecil F. Raphael, Esq., Mr. B. E. Bell, Messrs. Blackmore and Langdon, Messrs. W. Cutbush and Son, Messrs. W. Fromow and Sons, Messrs. J. Hill and Son, Messrs. J. Gunn and Son, Messrs. Stuart Low and Co., Messrs. George Paul and Son, Messrs. Sutton and Sons, Messrs. Mansell and Hatcher, Messrs. E. Webb and Sons, Mr. M. Prichard, Mr. Charles Turner, Messrs. G. Bunyard and Co., Mr. H. Burnett, Messrs. J. Cheal and Son and Messrs. Pulham and Son.

Silver-gilt Flora Medals.—E. J. Johnstone, Esq., Messrs. Barr and Sons, Mr. A. F. Dutton, Messrs. Kelway and Son, Messrs. E. W. King and Co., Mr. F. Lilley, Messrs. J. Peed and Son, Messrs. Sander and Sons, Messrs. T. S. Ware, Limited, and Mr. J. Box.

Silver-gilt Knightian Medals.—H. S. Barton, Esq., S. Heilbut, Esq., and The King's Acre Nurseries, Limited.

Silver-gilt Banksian Medals.—Messrs. J. Carter and Co., for flowering plants; Messrs. B. R. Cant and Sons, Messrs. G. and A. Clark, Limited, Messrs. G. Jackman and Son, Mr. J. Mattock, Mr. R. C. Notcutt, Mr. G. Prince and Mr. C. F. Waters.

Silver Flora Medals.—Messrs. Jones and Sons, Limited, Shrewsbury, Messrs. J. Piper and Son, Messrs. Carter Page and Co., Messrs. H. Cannell and Sons, Mr. G. Reuthe, Mr. L. R. Russell, Robert Sydenham, Limited, Mr. W. E. Alsen, Messrs. J. Forbes, Limited, Messrs. A. Dickson and Sons, Limited, Mr. C. Engelmann, Messrs. B. Ladhams, Limited, Messrs. J. Veitch and Sons, Limited; Messrs. S. Bide and Sons, Limited, Mr. C. W. Breadmore, Messrs. Seagrave and Co., Messrs. F. Smith and Co., Messrs. G. Stark and Sons and Messrs. Hobbies, Limited.

Silver Knightian Medals.—Swanley Horticultural College, Locksheath Nurseries, New Zealand Government and Messrs. Laxton Brothers.

Silver Banksian Medals.—Mr. E. V. Low, Mr. H. H. Crane, Messrs. R. H. Bath, Limited, Messrs. W. and J. Brown, Messrs. G. Gibson and Co., Mr. A. Ll. Gwillim, Messrs. R. Harkness and Co., Mr. G. Lange, Mr. S. Mortimer, Mr. J. D. Webster, Messrs. Jarman and Co., Messrs. Young and Co., Craven Nursery Company, Guildford Hardy Plant Nursery, Somerford Nurseries and Messrs. Whitelegg and Page.

First-class Certificates to Odontoglossum ardentissimum Queen Mary, from Messrs. Sander and Sons; and Lælio-Cattleya × Sylvia, from Messrs. Charlesworth.

Awards of Merit to Rose Frances Charteris Seton, from Messrs. W. Paul; Rose Mrs. Chas. E. Allan and Rose Leslie Holland, from Mr. Hugh Dickson; Gladiolus nanus Queen Mary, from Messrs. Smith, Guernsey; Dracæna Deremensis Wurnsoni, from Messrs. J. Veitch and Sons; Sweet Pea Lady Knox, from Messrs. Dobbie; Pelargonium Lord Bute, from Mr. Treseder; Odontoglossum eximium King George, Odontioda Bradshawiæ Sander's variety and Odontoglossum amabile The Queen, from Messrs. Sander and Son; Cattleya Mossiæ Queen Mary, from Messrs. Mansell and Hatcher; Lælio-Cattleya × Martinettii King George V., Odontoglossum Olympia and Cattleya × dupreana, from Messrs. Charlesworth and Co.; and Strawberry Peter's Olympia, from Mr. H. P. Sturgis, Leatherhead.

Cultural Commendations to J. Gurney Fowler, Esq., for Oncidium macranthum and Anguloa Cliftonii; and to H. S. Goodson, Esq., for Cattleya Mossiæ Wagneri Goodson's variety.

*** *Owing to the magnitude of the exhibition, the report of the Orchids and garden sundries and the list of bronze medals must be held over until next week.*

or boxes and at once transferred to these new quarters without being allowed to become in the least dry. If the foliage has not quite died down, it is all the better, as the bulbs are then easier to find. If it has, a careful search must be made, so as to miss none. In practice I always turn the pans upside down, and then, beginning at one corner, go over the soil bit by bit until the whole has been thoroughly looked through. As they are to remain in the bed for a long time, I would suggest 2 inches apart being none too much; in fact, another half an inch or so would be rather better for the larger ones.

I now come to the treatment of ordinary flowering bulbs. I think all but the more "difficult" and delicate varieties are better left in the ground a second year. The flowers are larger as a result of their being undisturbed. I find the Dutchmen are great believers in this, for they one and all keep telling me, "Oh! you must come again next year and see the flowers (of some variety that I have admired); then they will be ever so much finer. We are not going to take them up this summer, but they will be left in the ground." But, as a matter of fact, everyone has *some* bulbs to take up. When should this be done? I myself like to wait until the leaves have just died down, that is, when they have got to the last stage of their yellow state and they easily come away from the bulb when lifted. If a choice has to be made of doing the work before or after this ideal time, t is better to be on the early side and lift *as soon as* the leaves are yellow. A new idea to me that I recently saw carried out was to allow the leaves to remain on the bulbs for some little time if they had to be lifted at an early stage. This is quite possible where there are not many bulbs to be dealt with, and as I think it likely to be beneficial, I am testing it myself. Of course, the plants must be spread out *very* thinly when they are first put in the drying-trays, and then they must be carefully watched in case of mould appearing. The Poeticus section never seem to have a resting season. Almost invariably, lift them when you will, they have some young roots. Above all, they must be lifted early and, for the best results the following flowering season, planted early.

Instead of being able to get one's bulbs up at the right time, we occasionally find we have got into August or even September before we have been able to touch them. What must be done then? My advice is that there is only one thing to be done, and that is to lift them without injuring the roots and immediately, without allowing them to become in the least dry, replant them. With this treatment they will be little the worse when they flower; whereas if they had been dried off the flowers would be poor and weak, or, what is quite on the cards, there would be none at all.

As I am writing on lifting, although the time has long since passed for the following to be of use in the present year, I think it will not be out of place in view of possible contingencies in the next to say that bulbs can be lifted at almost any stage of their growth if the operation is performed without any damage being done to either the foliage or the roots. With the exception of taking up bulbs for putting in pots and getting some early bloom under glass, this early lifting before flowering-time is, I suppose, never wanted to be done. It is, however, often very convenient to move the plants afterwards to make room for something else, or because the soil or situation has been found unsuitable. No one need be afraid of doing this if care is taken, as I have already stated, to keep the foliage and roots intact and to transfer all the platts that are taken up to their new quarters without their being out of the ground a moment longer than is absolutely necessary. JOSEPH JACOB.

IRIS TINGITANA.

THIS beautiful Iris, which comes from Tangier, is somewhat similar in general habit and appearance to the well-known English Iris (I. Xiphioides). It, however, flowers more than a month earlier than that species, being at its best about the beginning of May. Owing to its shy flowering propensities, this plant is not grown so much as its handsome appearance merits, and good examples, well flowered, are seldom met with in this country. This defect is probably due to the imperfect ripening of the bulbs here, as in its native home it would experience a thorough roasting in the summer months.

The group of plants illustrated are growing in a south border at Kew, and are planted in deep sandy loam. This, however, is their first season in that position, as the bulbs were only planted in the autumn of last year. Another group of bulbs a little further along the same border, which had been in the same position for some years, only produced two flower-stems. It therefore follows that, if good results are desired, fresh bulbs should be obtained annually from a warmer climate.



IRIS TINGITANA IN A BORDER AT KEW.

Iris tingitana starts into growth soon after it is planted in the autumn, and retains its foliage but little injured by frost or bad weather during the winter. The stems are from 2 feet to 3 feet high, with long, broad, arching leaves grey-green in colour and deeply channelled. The flowers are large, about 6 inches across, and of a pleasing shade of lilac purple, while each of the falls has a golden yellow keel or crest. I. tingitana is only one of the many beautiful bulbous Irises belonging to this section of the genus. Flowering just a little later is the lovely I. juncea, with its Rush-like leaves and rich yellow flowers. This species, which is a native of South Europe and North Africa, also requires well-ripened bulbs to flower freely. Another kind well worth growing is the closely-allied I. filifolia, with dark violet or red-purple flowers. All three require to be planted in the warmest position possible, with the bulbs embedded in sandy soil, while below good rich loam and well rotted manure should be within reach of the roots. W. I.

COLOURED PLATE.

PLATE 1429.

THE TUBERGEN FREESIAS.

ON December 4, 1909, there appeared in THE GARDEN a coloured plate of some yellow Freesias, which represented some of the best forms and types that had then been evolved by our celebrated English raiser, Mr. Herbert Chapman of Rye. He, together with Messrs. Sutton and Sons of Reading, are our only English workers among these plants, as far, at least, as I am aware. In all probability there are others, or, if there are not, I think there should be, partly because Freesias so readily lend themselves to crossing and bear such an abundance of easily-germinated seed whose progeny seems quite at home and content to grow in our cool English greenhouses, and partly because, having once tasted blood, those who know these firstlings in their varied tones of yellow, mauve and pink will never rest satisfied until further advances have been made in colour, fragrance and size. Even now there is a small coterie of "Freesians" to whom the flowering of the new seedlings of each succeeding year is one of the looked-forward-to events of their lives.

In the current issue we are introduced to the work of the youngest of the Hoog brothers, who are known to plant-lovers as keen hybridists and collectors in many different directions, but whom I personally prefer rather to think of as the friendly and courteous nephews of "the dear old man who usually smokes at meals and very often in bed . . . who can never find it in his heart to forbid his workmen the well-loved pipe . . . who smoke everywhere in his barns . . . but who, so far as I have heard, has never suffered loss by fire" ("Dutch Bulbs and Gardens," by D. Silberrad, page 112). This "dear old man," although he has something white under his black skull-cap, still officially calls himself a junior, for Mr. C. G. van Tubergen, Junior, is what we read on his bulb lists. The real "why" belongs to family history; but to those privileged to know him, the affix is but

his true description, for, keen and enthusiastic as ever, he takes the greatest interest and pride in showing visitors the various works of his nephews' hands, and the rich collections of plants which he has in his well-filled gardens.

The Freesia house at Zwanenburg Nurseries, Haarlem, must be a great sight in February and March, and a very surprising one to those who only know the old Leichtlinii and refracta alba. Heliotrope, Tyrian rose, violet rose, deep carmine violet, coppery rose, flesh pink, coppery yellow, new red, coppery red, Solferino red, salmon pink and bluish lilac are a selection of the colour-names from the colour-chart (" Repertoire de Couleurs ") which accurately match some of the many shades of this new strain. The plate does not do justice to the brightness of the tints. The real things are different; but, all the same, it gives an idea of what they are like. Luminosa is one of the best that Mr. Hoog has raised. A tall grower, often 30 inches high, extremely floriferous, large individual blooms, pure lilac rose in colour, with a white throat and with no pencillings or markings, it can only be described as very good indeed. The name has now been changed to Conquest, as Luminosa suggests a brilliant colour, such as we find in Le Phare, whereas it is " very soft and pleasing."

Amethyst is an omnibus name, and includes paler and deeper shades of mauves that incline to the blue side, while roses and carmines come under Tubergenii. All these new hybrids, with the exception of Contrast, a flower like an " orange tip " butterfly, have scent, some more and some ess. I am particularly glad to be able to say this, for to me scent is one of a flower's most valuable possessions, and we should never deprive them of it. It will be of interest to those about to begin seedling-raising to know that when the new and best varieties are crossed on to refracta alba there is only a small percentage of new shades, but the flowers are very good and large. It was from such a cross that Conquest (Luminosa) was raised, whereas Le Phare, having slightly smaller flowers, with a very striking shade of colour, is an example of the lesser type of flower that is usually given by intercrossing the new shades with one another. There was a fine exhibit of these Freesias at the Jubilee exhibition at Haarlem on March 23 of last year. I then marked as the best and most striking Luminosa (now Conquest), Dainty and Le Rêve, with Contrast, Le Phare, Cinderella and Amethyst not far behind.

They are a beautiful race, these Tubergen hybrids. They possess not only the charm of novelty, but also that of beauty and sweetness. They are a valuable acquisition among early spring-flowering bulbous plants for our greenhouses and our living rooms, while to the hybridist they offer possibilities which at present exist only in the imagination of the enthusiast. JOSEPH JACOB.

THE ROSE GARDEN.

SOME WHITE EARLY-FLOWERING CLIMBING ROSES.

THERE is always something peculiarly attractive about white rambling Roses. Perhaps it is that they harmonise well with the various shades of green foliage that abound on every hand, and they possess a cool, refreshing appearance that is very welcome at all times. The phenomenal heat wave has brought on some Roses before their customary period of flowering, so that on June 6 this year one could cut lovely sprays of all the sorts I shall deal with here.

Although to some it is very insignificant, there are many Rose-lovers who are charmed with Thalia, the double form of Rosa polyantha. When seen in a mass it is most beautiful. A very pretty little shrub is the Perpetual Thalia, flowering from early June to October, and it is excellent for short hedges. The type of all the multifloras, which is known as R. multiflora simplex and also as the Blackberry Rose, was a mass of snowy bloom at the time named. Its flowers are small, it is true, but they are produced in such immense bunches that a fine effect is made, especially when the shrub is allowed ample space to spread outwards and thus display its clusters to the best advantage. Perhaps the best of the fast-growing white multiflora Roses is Grüss an Zabern, a truly delightful Rose, flowering most abundantly. Its flowers are double, of perfect Ranunculus shape, and produced in fine bold clusters. Waltham Bride is very good, its flowers quite a pure white, very sweet, and the foliage is fine and glossy. This Rose is best grown as a screen or as a pillar.

Electra, although its buds are yellow, may really be termed a white Rose, for that is the effect produced by isolated bushes or pillars of this grand Rose. I have it as a big single bush, and that is the form I recommend this Rose to be grown, as indeed I would many of these so-called climbing Roses, because, after all, they are not really climbing sorts. Just plant them out in isolated positions and leave them to grow outward as they like.

A very lovely early-flowering wichuraiana is François Guillot, its delightful, almost pure white blooms being large, opening into a flower rather less than 3 inches across. The flower is not quite so double, but it is nearly as beautiful as the old Noisette Lamarque, which has been very fine on a west well; but, of course, there is no perpetual-flowering habit of the wichuraiana such as there is with the Noisettes, although I think we shall have a perpetual-flowering race before long. Mme. Alfred Carrière is now flowering with me. I planted it with Carmine Pillar, and most beautiful they are together. The idea of so planting them was rather to have a continuation of bloom when the Carmine Pillar had passed. It is a most precious Rose, and should be left almost unpruned. So splendidly free and continuous is it that a lady once informed me she cut great branches of it in bloom on Christmas Day from her Devonshire garden. These bushes were grown as isolated specimens, and were quite of huge dimensions. Nova Zembla, although it is not a climber, may be used as a free bush or pillar. I have it as the former, the bush spreading out some 6 feet and about 5 feet in height, yet it has only been planted two seasons. It yields most delightful flowers of something the same shade as Mme. Alfred Carrière, only as big as Conrad F. Meyer, from which it is a sport.

ROSE TAUSENDSCHON AS A POT PLANT.

WELL-FLOWERED specimens of this charming rambler have been in the market this year, and very dainty they are in their effect. The charming soft pink colour and the very large individual blooms place this variety in the front rank as a decorative rambler, and it can be had in bloom much earlier in March than most other varieties. There is also less of the embarrassing vigour that we have in Lady Gay and Dorothy Perkins, and the plants yield their blooms right to the top of the pot. Plants in bloom purchased some weeks ago can be planted out now to fill any blank space on the pergola; or they may be potted on and grown under glass until August, then put outdoors to ripen, when they will come in very handy for the conservatory next spring if brought under glass in January. P.

THE TOWN GARDEN.

OPEN-AIR TOMATOES.—Not infrequently the failures or partial successes of the amateur gardener or beginner are more or less directly traceable to mistaken kindness on his part, and that phase of generosity in the supply of plant foods in particular which, while savouring of an over-indulgent nature, more often than not falls little short of gorging. Now plants or animals must not be gorged with food which is impossible of prompt utilisation; hence while a man, should he so indulge, may soon be overtaken by some of the ills to which human flesh is heir, the plant develops a grossness which is but the precursor of disease and, probably, death.

NOW THE TOMATO PLANT would appear almost predisposed to grossness of growth, and requires but very little encouragement in the way of rich food supplies; indeed, and from the standpoint of fruitfulness, the plant requires none at all in its earliest stages—nothing, in short, that is capable of resulting in fat stems and leaves and flabby tissues, all of which, while unfavourable to fruit-bearing, are highly favourable to disease. Hence, in the early days of planting out the amateur should not endeavour to force a growth out of all proportion to that which has gone before, but rather, in the most natural manner and by the most rational methods, endeavour to promote that sturdiness of growth and firmness of stem which are calculated to give the best results.

HOW TO ATTAIN IT.—In the first place, avoid all rich manures at planting-time, since excessive grossness of growth at this period is directly responsible for the falling of the early-formed flowers. The same state of things may be brought into being by excessive watering, and just as frequently by the presence of too great a quantity of loose soil about the roots of the plants. The things to avoid, therefore, are organic manures, much water, and very loose soils, and, avoiding these, direct attention to their opposites, viz., unmanured soils which are also of moderate firmness and comparative dryness. These, indeed, are

WHAT THE PLANTS PREFER, or, rather, these are the essentials to the securing of a big set of fruits, which, after all, is what the gardener, be he amateur or professional, has set his mind upon. Hence, should it be seen that the early-formed flower-buds are yellowing and falling away, water should at once be withheld from the plants, and the latter, having become moderately dry, should have the soil made firm by treading about their stems.

A COMMON ERROR of the amateur in this, as in other matters, is that of setting his plants in the same position year after year, and for no other reason than that " they did splendidly there last year." Now, the Tomato plant, in common with the Cucumber, has the peculiar power of exhausting the soil or so poisoning it by its presence in a single year that its kind never succeeds so well in it again. Hence the provision of fresh soil is essential to success. In the case of outdoor Tomatoes, the fresh position naturally supplies the fresh soil, which is of the utmost importance. Those who have this season fallen into the common error may assist matters now by placing a 2-inch-thick layer of fresh soil about their plants, and in this way encourage a new root action.

SUBSEQUENT TREATMENT.—So far we have seen that it is wrong to over-feed the Tomato plant in youth; but there comes a time when the demands upon its resources must be met, and that time is when it is seen that the fruits on the lower trusses are inclining to swell. At such a time the application of liquid manure or some well-known fertiliser is both desirable and beneficial. Of this, however, in fuller detail anon. S. N. N.

GARDENING FOR BEGINNERS.

REMOVING SUCKER GROWTHS FROM FRUIT TREES.

DOUBTLESS many readers are familiar with the sight presented in the garden of the inexperienced grower at this season. How common it is to see round about the base of fruit trees of every description a young forest of superfluous and unnecessary growths which have been allowed to develop without ever making



1.—A PLUM TREE WITH NUMEROUS SUCKER GROWTHS.

an attempt to check or rid the trees of them. A moment's reflection cannot fail to convince the beginner that such a state of affairs is most undesirable. To allow these basal shoots to develop in such an unrestricted way must be harmful to the trees and seriously menace their future fruitfulness. Plum trees are, perhaps, a more frequent source of trouble than most other subjects, bush fruits excepted, and where these trees are growing in grass or on lawns, where they are frequently met with, they are a source of anxiety to the growers on this account.

The question naturally arises how to rid the trees of these innumerable and unnecessary growths. In Fig. 1 an example of a Plum tree with numerous suckers is shown. The merest novice should readily realise that to leave a tree such as this unattended to, must be prejudicial to its best interests, and for this reason it should be dealt with promptly. If such Plum trees are on their own roots, the suckers that are removed may be utilised for increasing the stocks; but Plum trees are usually budded on wild Plum and other stocks, and for this reason the suckers are useless until they are budded. The novice should have little difficulty in determining whether the trees are on their own roots (Plum) or not, because the leaf-growths of the two are so different. The first thing to do in removing suckers from fruit trees is to remove the soil round about the former and to cut the suckers off quite close to the roots whence they spring. It is useless merely to cut them off just below the surface, as so many inexperienced growers are prone to do. All suckers should be traced to their origin on the roots, and then be cut clean away. To make this removing of the sucker growths quite clear, in Fig. 2 the same Plum tree as is represented in Fig. 1 is shown, but with all the growths except one removed. This one growth has been retained in order to show how the suckers are actually dealt with. A careful inspection of the illustration will reveal the fact that the soil has been removed round about it, so that its origin may be discovered; the severance from the roots from which it springs is then a very simple matter. The altered appearance of the base of the tree shows the drastic way in which it is necessary to deal with these growths, and it is easy then to understand that the prospects of the trees are improved thereby. It does not necessarily follow, however, that suckers are responsible for trees failing to bear fruits. Suckers from Gooseberry and Currant trees should be removed, and if this is done with care and with roots attached, they will, in a year or two, become good plants. For the latter purpose I prefer to remove the suckers in the late autumn or early winter. D. B. CRANE.

HOW TO RAISE AND GROW FORGET-ME-NOTS.

IT may seem to many a very easy matter to raise and grow these plants, but it is not so easy to succeed with them in some districts, notably in low-lying ones. I have seen very promising young plants die wholesale during the autumn and winter months where the soil was of a cold, retentive nature and beds of it were made up in the ordinary way.

I will briefly explain how these lovely plants should be raised and kept safely in such adverse circumstances as above referred to. Sow the seeds very thinly in a low, cool frame at once. I prefer to sow them in drills 9 inches apart. Keep the resultant seedlings free from small weeds and stir the soil between the rows frequently. Remove the glass lights when the seedlings appear, and the frame, too, when the first rough leaf shows. Transplant the seedlings twice—first, while very small, in an ordinary bed, but not one made rich with manure. During August transplant them once more in a specially-prepared bed, one that is raised up with the centre quite 1 foot above the surrounding ground-level, and with a well-rounded top, so that no moisture will lodge there. The soil of this bed must not be made very rich, because a too luxuriant growth would decay in the winter-time, and our aim must be to secure a strong, sturdy plant that will withstand fogs, frost and spells of rainy weather. The top 2 inches of the soil of the bed should consist chiefly of road scrapings; failing such material, use sand and sifted leaf-soil thoroughly mixed and well incorporated with the original soil of the bed. These beds should be about 3 feet wide. Plants so treated, I find, make splendid tufts for the spring flowering season. SHAMROCK.



2.—THE SAME TREE SHOWING THE PROPER WAY TO REMOVE THE SUCKERS.

THE PARENTAGE OF ROSES.

(*Continued from page* 314.)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Lia	H.T.	Ketten	1909	Farbenkönigin × Mme. Ravary
Liberty	H.T.	A. Dickson	1900	Mrs. W. J. Grant × General Jacqueminot
Lieutenant Chaure	H.T.	P. Ducher	1910	Liberty × Etoile de France
,, Ozren Leovies	H.T.	Ketten	1909	Mme. Abel Chatenay × Mlle. de Kerjegu
Lilli von Possern	H.T.	Kiese	1910	Caroline Testout × Dr. Troendlin
Lilly et Margot	P.P.	Ketten	1903	Petit Constant × Frau Syndica Rocloffs
Lina Schmidt-Michel	H.T.	Lambert	1905	Mme. Abel Chatenay × Kleiner Alfred
Little Queen of Holland	Tea	Soupert	1898	Celine Forestier × Mme. Hoste
Lohengrin	H.T.	J. C. Schmidt	1903	Caroline Testout × Mrs. W. J. Grant
Lord Raglan	H.P.	Guillot p.	1853	Seedling Geant des Batailles
Louis Barbier	Pern.	Barbier	1909	Mme. Berard × R. lutea punicea
,, Chabrier	Ch.T.	Nabonnand	1904	Common China × Souv. d'un Ami
,, Chaise	H.P.	Lacharme	1857	Seedling Eugène Appert
Louise Cassier-Perrier	H.T.	Puyravaud	1905	Lady M. Fitzwilliam × Mme. Joseph Combet
,, d'Autriche	H.P.	Fontaine	1857	Seedling La Reine
,, Humbser	Tea	Ketten	1904	La Sylphide × President Constant
,, Müller	H.P.	Müller	1897	Pierre Notting × Safrano × General Jacqueminot × Empereur du Maroc
,, Peyronny	H.P.	Lacharme	1844	Seedling La Reine
,, Pigné	Ch.	Begault-P.	1905	Eugène Resal × Mme. Lambard
,, Welter	P.P.	Welter	1909	Tausendschön × Rosel Dach
Lucien de Lemos	H.T.	Lambert	1906	Princesse Alice de Monaco × Caroline Testout
Lucile Coulon	Tea	Schwartz	1899	Kaiserin Augusta Victoria × Luciole
Luciole	Tea	Guillot et f.	1886	Seedling Safrano
Ludwig Winter	Tea	Nabonnand	1904	Christine de Noue × Sombreuil
Luigi Galvani	H.T.	Bonfiglioli	1910	E. Veyrat Hermanos × Paul Neyron
Lusiadas	Tea	Costa Porto	1904	Rêve d'Or × Commandant Beaurepaire
Lustige Wittwe	P.P.	Lambert	1909	Cineraria × Kleiner Alfred
Lydia Grimm	H.T.	Geduldig	1907	General Jacqueminot × Caroline Testout or Kaiserin Augusta Victoria
Lyon Rambler	M.S.	Dubreuil	1908	Seedling Crimson Rambler
,, Rose	Pern.	P. Ducher	1907	Mme. Melanie Soupert × Soleil d'Or
Lyonnaise	H.P.	Lacharme	1871	Victor Verdier race
Ma Capucine	Tea	Levet	1871	Seedling Ophirie
,, Filette	P.P.	Soupert	1897	Mignonette × Luciole
,, Paquerette	P.P.	Guillot f.	1875	Seedling R. multiflora
,, Petite André	P.P.	Chauvry	1898	Seedling Etoile de Mai
Mabel Morrison	H.P.	B. & Broughton	1878	Sport Baroness Rothschild
Mme. Abel Chatenay	H.T.	P. Ducher	1894	Dr. Grill × Victor Verdier
,, Albert Bernardin	Tea	Mari	1904	Comtesse de Frigneuse × Marie van Houtte
,, ,, Maronne	H.T.	G. Ketten	1909	Kaiserin Augusta Victoria × Lady Roberts
,, Alfred de Rougemont	H.N.	Lacharme	1862	Seedling Blanche Lafitte
,, Ancelot	H.Rug.	Gravereaux	1906	Reine des Isle-Bourbon × Perle des Jardins × Maréchal Niel × Germanica
,, André Porcher	H.T.	Guillot	1896	Seedling Mrs. W. J. Grant
,, Antherien Perrier	Tea	V. Schwartz	1899	Souv. de Mme. Sablayrolles × Luciole
,, A. Tupinier	H.T.	Pedriolle	1909	Antoine Rivoire × Joseph Hill
,, Auguste Choutet	H.T.	Godard	1901	William A. Richardson × Kaiserin Augusta Victoria
,, ,, Guillaud	Tea	Guillaud	1900	Princesse de Sagan × Souv. de Dr. Passot
,, A. Ulliet	H.T.	Guillot	1910	Seedling Antoine Rivoire
,, Begault-Pigné	H.T.	Begault-Pigné	1906	Caroline Testout × Her Majesty
,, Bellender Kerr	H.P.	Guillot p.	1867	Seedling Mlle. Bonnaire
,, Berard	D.T.	Levet	1870	Mme. Falcot × Gloire de Dijon
,, B. Lafaye	N.	Puyravaud	1902	Seedling William A. Richardson
,, Boegner	H.P.	Vigneron	1888	General Jacqueminot race
,, Boll	H.P.	Boll	1859	Baronne Prevost × a Portland
,, Borny d'Arnex	H.T.	Soupert	1907	Laure Wattinne × Antoine Rivoire
,, Campell d'Isly	H.P.	Baudry	1859	Sport La Reine
,, Carnot	N.	Mor. Rob.	1889	Seedling William A. Richardson
,, Carnot	Tea	Pernet p.	1893	Seedling Marie van Houtte
,, Caro	D.T.	Levet	1880	Seedling Gloire de Dijon
,, Charles	Tea	Damaizin	1864	Seedling Mme. Damaizin
,, Chauvry	D.T.	Bonnaire	1885	Mme. Berard × William A. Richardson
,, Chedane Guinoisseau	Tea	C. Guinoisseau	1880	Sport Mme. Falcot
,, Constans	H.W.	Gravereaux	1902	R. wichuraiana × Souv. de la Malmaison
,, Constant Soupert	Tea	Soupert	1905	Souv. de Pierre Notting × Duchesse M. Salviatti
,, Cossé-Brissac	Tea	Mille T. f.	1910	Mlle. Jeanne Philippe × Prince de Bulgarie
,, C. P. Strassheim	Tea	Soupert	1897	Adèle Jougant × Princesse de Bassaraba
,, Dailleux	H.T.	Buatois	1900	Victor Verdier × Dr. Grill
,, Delville	H.P.	V. Schwartz	1890	Seedling Alfred Colomb
,, d'Enfert	B.	Rose Vilin	1904	Mme. Ernest Calvert × Duchesse d'Auerstœdt
,, Derepas-Matrat	Tea	Buatois	1897	Mme. Hoste × Marie van Houtte
,, Desirée Giraud	H.P.	Haussay	1856	Sport Baronne Prevost
,, Driout	Tea	Thirriot	1903	Sport Reine Marie Henriette
,, D. Wettstein	H.P.	Levet	1884	Seedling Victor Verdier
,, Edmée Cocteau	H.P.	Margottin f.	1903	Seedling Captain Christy
,, ,, Metz	H.P.	Soupert	1900	Caroline Testout × Ferdinand Jamain
,, Edmond Sablayrolles	Tea	Bonnaire	1907	Mme. Falcot × Maréchal Niel
,, Eduoard Helfenbein	Tea	Guillot	1893	Seedling Anna Olivier
,, Edward Vicars	Tea	Schwartz	1908	Anna Chartron × Luciole
,, E. Forgeot	H.P.	Vigneron	1890	Jules Margottin × Elizabeth Vigneron
,, Ernst Calvat	B.	V. Schwartz	1888	Sport Mme. Isaac Pereire
,, Errera	Tea	Soupert	1899	Mme. Lambard × Luciole
,, E. Souffrain	N.	Chauvry	1897	Rêve d'Or × Duarte Oliviera
,, Etienne Levet	H.T.	Levet	1878	Antoine Verdier × a Tea
,, Eugène Resal	Ch.T.	Guillot	1894	Seedling Laurette Messimy
,, ,, Verdier	H.P.	E. Verdier	1875	La Reine race
,, ,, Verdier	D.T.	Levet	1883	Seedling Mme. Barthelemy Levet
,, Frederic Daupias	Tea	Chauvry	1898	Seedling Charles de Legrady
,, Gabriel Luizet	H.P.	Levet	1877	Jules Margottin race
,, Georges Bruant	H.Rug.	Bruant	1887	R. rugosa × Sombreuil
,, ,, Durschmidt	Tea	Pelletier	1894	Christine de Noue × Mme. Falcot
,, ,, Mazurier	Tea	V. Schwartz	1899	G. Nabonnand × Luciole
,, Giard	Tea	Ketten	1905	Mme. Caro × Albert Patel
,, Granger d'Arc	H.T.	Mille T. f.	1910	Marquise Litta × Camoens
,, G. Serrurier	Tea	Soupert	1909	G. Nabonnand × Mrs. W. J. Grant
,, Gustave Fargeton	N.	Fargeton	1901	Celine Forestier × Reine Marie Henriette
,, ,, Metz	H.T.	Lamesch	1905	Seedling Caroline Testout
,, Hardon	H.P.	P. Cochet	1897	General Jacqueminot race
,, Henri Gravereaux	H.Rug.	Gravereaux	1904	Marie Zahn × Conrad F. Meyer
,, Jean Sisley	Ch.	Dubreuil	1885	Ducher × Sombreuil
,, Joseph Bonnaire	H.T.	Bonnaire	1892	Adam × Paul Neyron

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page* 231 *of our issue for May* 13.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Christmas Roses and other questions (*G. M. S.*).—The plants should be broken up and replanted where necessary in September or October, and should never be planted in the young leaf period in spring. Do not attempt to transplant big clumps intact; it is fatal to these plants. A position having an evergreen screen at the north and east, and light shade on the southern side, is best. Dig and prepare the soil 2½ feet deep at least; the plants root very deeply. Arrange the manure deeply down for the most part, and incorporate a little very old manure nearer the plants. A little bone-meal mixed with the soil is also helpful. Liquid manure and water may be given in dry weather, preferably in the evening. Avoid cutting the leaves of these plants unless disease appears. The basic slag would have been better incorporated with the soil some months ago to have benefited the plants now. It is slow in its action. The proportion you name would do quite well, digging it in a few inches deep. Clay's Fertilizer is distinctly good for border Carnations, and should be lightly forked in or given in solution about the base of the plants. It is now late for pruning the Choisya, that is, if you are expecting flowers therefrom another year. In the circumstances it were better to have pruned in March, and a week or two later to have transplanted the specimen to a more sheltered spot.

Manure for a lawn (*Constant Reader*).—As a manure for your lawn to use at the present time, take 2cwt. of superphosphate of lime, 1cwt. of bone-meal and 1cwt. of sulphate of ammonia, mix the various substances thoroughly, and sow over your lawn in wet weather or water it in. It is probable that it will turn the grass a little brown to begin with, but it will soon recover.

THE GREENHOUSE.

Azalea failing to flower (*Dr. G.*).—After Azalea mollis has flowered as a pot plant, it, generally speaking, needs a season in which to recover itself before it will be again at its best. The practice usually adopted is, after the plant is hardened off, to plant it outdoors in a suitable spot. By this we do not mean plunging the pot in the ground, but simply planting it where it will make good growth. For all this we have had very satisfactory results in the case of plants of Azalea mollis flowered year after year and kept altogether in pots. The treatment given them was as follows: After flowering in the greenhouse the plants were repotted and stood in a frame, well watered and frequently syringed till the cold weather was passed. Then they were plunged to the rim in a sunny spot outdoors. As they were only sunk to the rim, they could be readily watered, a very necessary matter, as a liberal amount of water at the roots, combined

with effective drainage, is most necessary for the successful culture of Azalea mollis. There is no doubt that the main cause of your want of success is starvation, the plant having suffered from lack of water in the summer of 1909, and possibly also last year. We advise you to plant your Azalea in as favourable a spot as possible and obtain another in the autumn, treating it after flowering as here advised.

Treatment for Cyclamen after flowering (*Amateur*).—After flowering they may be allowed to remain in the greenhouse, or, as they then look somewhat shabby, they can be removed to a cold frame, standing them on a bed of coal-ashes. The plants must be kept watered as before until they show signs of going to rest, which will be evident by the leaves turning yellow. Then the water supply must be lessened, but not discontinued altogether so that the soil becomes absolutely parched up. When the young leaves show signs of making their appearance, which will be about midsummer, the old corms should be shaken absolutely clear of the soil and be repotted in a compost made up of loam lightened by an admixture of leaf-mould, sand and lime rubble. The plants must then be again removed to the frame, shading them during bright sunshine, or the frame may be so situated that the sun does not shine direct on it. Water must be very carefully given till the new roots take possession of the fresh soil, after which the supply must be increased.

ROSE GARDEN.

Roses not opening well (*Enquirer*).—Both varieties, Mme. Isaac Pereire and the Philadelphia Rambler, are much addicted to this bad fault. We think, as regards Mme. I. Pereire, it is often caused by early frosts or by growing the Rose in soil too rich. We have also found that want of pruning sufficiently hard has produced such flowers. You will find the second crop of blooms more perfect. The Philadelphia Rambler flowers best on the old wood. On the young wood of last year it invariably produces these malformed blooms.

Climbing Roses for German garden (*Niebusch*).—We think you could very well grow some of the lovely wichuraiana Roses upon the stone pillars, taking care that the Ivy and Ampelopsis do not encroach upon the Roses too much. You would need to open out good deep holes for each Rose quite 3 feet deep and about 2 feet wide each way. Mix good manure with the soil; then return all again. This could be done in September; then by October the soil would have settled down well, and you could plant the Roses by that time. The varieties we name for the pillars need not be pruned the first year, but those for the wall marked with an asterisk should be cut back to within 2 feet of their base. For pillars: White—François Guillot, White Dorothy, Mme. d'Arblay and Bennett's Seedling; pink—René André, Lady Godiva, Paul Transon and Leontine Gervais; red—Excelsa, Delight, Dr. Rouges and M. Desir. For wall: Gardenia, Joseph Lamy, Elise Robichon, *Mme. Alfred Carrière, *Reine Olga de Wurtemburg and *Climbing Caroline Testout.

Black spot on Rose leaves (*A. W.*).—The Rose black spot is due to the attack of the fungus Actinonema rosæ. Spraying with Bordeaux mixture or with a solution of potassium sulphide, 1oz. to three gallons of water, will be found to check the disease to some extent.

Parentage of Rose Gruss an Teplitz.—(*H. P.*).—We believe there has been no authentic publication as to the parentage of this Rose, but we have an idea it originated from a compound cross in which Gloire des Rosomanes and Cramoisie Supérieure were employed. We note the raiser, Herr Peter Lambert, describes it as a Hybrid Bengal.

Weeping Roses (*Collapit*).—Do not attempt any training of the growths this season. You will find that growths will start out from the base of the bud very soon, and these will naturally droop; but you should keep the early growths well tied to a stick, so that gales do not blow them out. This very often happens if the growths are not tied the first year to some support. By the autumn the trees will have made several pendulous growths, which next season should be left unpruned. You can purchase wire trainers for these Roses now, so that the work is very simple. It is a pity you have to transplant the trees, as they do so much better if budded where they are to remain. Lavender flowers are usually ready for drying by the end of June, but they will be somewhat earlier this season. They should not be quite fully out, and are dried in the sun for a few hours. No other preparation is necessary than to remove the flowers from the stalks and put them into bags.

Scotch Roses with yellow blight (*Miss Cox*).—The Roses are badly attacked by orange fungus, which is very prevalent this season. Possibly your plants have contracted the fungus from the wild Briars in the hedgerows. We advise you to remove as much of it as you can and burn at once; then spray the bushes with potassium sulphide. An excellent plan to adopt, where the fungus has attacked the wood, is to rub in methylated spirit diluted with equal parts of water. This may be thoroughly rubbed in with a sponge.

TREES AND SHRUBS.

How to root Ivy cuttings (*J. B.*).—If you take cuttings of Ivies any time between the present and the end of August, and insert them in light soil in a warm frame, they will form roots in two or three weeks' time. Cuttings may also be taken now or any time up to Christmas, and be planted in borders outdoors. If this is done at once, select a shady corner for the cutting-bed and water the cuttings freely until rooted. Cuttings 9 inches to 12 inches long may be made, and they may be buried in the soil about half their depth.

When to sow Chestnut seeds (*F. S. Becton*).—Seeds of the red-flowered Horse Chestnut ought to be sown as soon as ripe, or, if that is impossible, place the seeds among moist, decayed leaves or sand until it is possible to sow them. The seeds of the Chestnuts lose their vitality very quickly if allowed to become dry, hence the necessity for early sowing. If you collect them when they commence to fall from the trees, you may plant them 3 inches deep in any ordinary garden soil. As the seeds are sometimes eaten by mice, it is a good plan to roll them in red lead previous to sowing. Transplant at the end of the first year, and subsequently every second year until the trees can be placed in a permanent position.

Holly leaves (*C. S. C., Arran*).—The discoloured patches on the Holly leaves sent for examination are due to the presence of the Holly fly (Phytomyza ilices). The best way to reduce the pest is to syringe the affected plants once a week during the latter half of April and May with paraffin emulsion, prepared by dissolving 1lb. of soft soap in a gallon of boiling water, then adding two quarts of paraffin, stirring the whole together until a creamy mixture is produced. Make up to twenty-five gallons with clear water and apply lightly to the bushes. This will kill the flies as they emerge from the chrysalis stage and so prevent a fresh generation.

Silver Birch (*Sutton*).—We should imagine that there is some connection between your fowls and the bad condition of the Birch tree you describe. Possibly the trunk has been buried at some time when making your fowl-run, and the roots are far below the surface of the ground. Such a condition would be quite sufficient to account for ill-health. Again, the manure from your fowlhouse may have been placed over the roots and so have done the injury. We are at a loss to account for the ill-health of your Peach tree without seeing the plant, but root injury may have caused the trouble. Exposing the roots last winter would be sufficient to account for no fruit being produced this year and for the leaves withering, especially if manure was placed directly about the roots.

FRUIT GARDEN.

Peach trees attacked by fly (*N. D.*).—It will not do to denude the trees of too many of the leaves, but the worst shrivelled should be picked and the ends of the shoots which are worst affected shortened. The fly must be killed and new healthy growth encouraged afterwards. The best wash for killing fly is: Quassia chips, 2lb.; soft soap, ½lb.; water, 5 gallons. Boil the Quassia chips in water for a couple of hours, dissolve the soft soap in warm water and mix the strained Quassia extract with it, then add the water.

Morello Cherry tree dropping its fruit (*J. B.*).—It is very unusual for the Morello Cherry to cast its fruit. It is, therefore, difficult to account for its doing so in your case. Are you sure that the tree is not dry at the roots or the soil deficient in lime? The latter very likely may be the cause. Stone fruit trees will not succeed in soil where lime is absent. Give the border a good dressing at once, say, half a peck, forking it into the soil about 3 inches deep over the roots of the tree, and then give a good watering. In the autumn give your tree a slight dressing of bone-meal, and fork it in in the same way as advised for the lime.

Peach leaves attacked by fungus (*A. S.*).—The Peach leaves are attacked by the shot-hole fungus, which causes the leaves to turn yellow and drop. The safest spray to use is ammoniacal copper carbonate made by making a paste with 5oz. of copper carbonate and a little water. To this add 3 pints of the strongest ammonia, which should give a deep clear blue liquid. This should be diluted with water to make 45 gallons. It is possible your Peach border is not in a good condition as regards the regulation of the water supply. Iron sulphate may be added in small quantities to the soil if needed without doing damage to the plants growing in it.

Melon plant for inspection (*J. McD.*).—The Melon appears to have been damaged through unfavourable conditions. Growth for a time in a very moist atmosphere and then exposure to a drier one would produce symptoms such as those shown. The plant may have been in a draught. Anything that affected root absorption, such as too strong a dose of manure, the attack of eelworm and so on, would be likely to produce similar effects, for they would cut off the supply of water. It is always best to send specimens in tin boxes, and especially in cases where they lose water rapidly, as do Melons and Cucumbers. If put into thin cardboard boxes, the latter often get smashed in the post and the plants arrive in an unrecognisable condition.

Fig tree dropping its fruit (*W. L.*).—This is due, we think, to the growth of last year's wood, on which the first crop of this year is borne, not being so firm and well ripened as it should be, on account of the partial shade to which it was subjected last summer from the Peach trees, and also to the trees not securing that absolute rest in winter in a cold temperature which is so essential to their fruiting well. Cannot you try a few trees in pots for early work? The wood of these is invariably ripened and better rested, as the trees can be placed outdoors after the fruit is gathered and growth completed, and thereby be exposed to all the light, air and sunshine possible, and also wintered under cold conditions. Pingo de Mel is an excellent variety to grow for this purpose, and there is no better sort to succeed it than Brown Turkey.

Peach tree shoots badly blistered (*Uruguay*). The sample shoots sent disclose a very serious attack of a disease termed blister. The leaves attacked will all drop off by and by and inoculate the soil round the trees with the mycelium of the fungus, so it is better to pluck off the worst affected of the leaves and burn them. Dress the trees afterwards thickly with flowers of sulphur, letting it remain on the trees for a week and then syringing it off. You will find that many of the diseased leaves left will fall from time to time during summer. Every one should be picked up and burnt, or the disease will surely appear again the following year. The attack is invariably brought on by spells of cold weather at night in spring while the leaves are young and tender. The best way to protect the trees from its ravages is to build a glass house over them and have it slightly heated with hot water.

Young Vine shoots gone wrong (*B. R.*).—Without knowing something about the condition of your Vines as to health, ripeness of wood, &c., it is difficult to say what has been the cause of the spurs not breaking regularly and well into growth, especially as the two Black Hamburgh Vines growing in the same house and subject to the same treatment are growing all right. Whether the fruit-buds were injured by winter treatment or not it is now impossible to say. Sometimes late varieties of Vines which have made over-strong growths in the previous year, and which could not be properly ripened, have behaved in the same way. The cause of the young leaves and shoots withering is partly, if not entirely, due to the attack of a minute red spider. This you should get rid of by damping the shoots and leaves and then smothering them with sulphur, leaving it on for two days, shading the Vine in the meantime. It may be syringed off afterwards. If all the shoots are as bad as those sent, they cannot come to any good; but let us hope that with a clean start after you have killed the spider, and with generous culture, new shoots will appear and the Vines will recover during the summer.

Sprays of Apple trees for inspection (*Anxious*).—Your specimen No. 1 is attacked by the Apple mildew, and all shoots so attacked should be cut away and burnt. Spraying with a solution of potassium sulphide, 1oz. to 3 gallons of water, will check the spread of this disease, but will not cure it, as the mycelium is perennial on the host. The winter spores are said to be rare, but they are apparently becoming more common and are perhaps overlooked at times, as the cases are liable to fall away from the plant to the ground, as with the American Gooseberry mildew with the advance of the season. No. 2 is the caterpillar of the winter moth, not the Codlin moth. Strong nicotine washes are said to kill these caterpillars, but we think you would probably find, if they are numerous, spraying with Paris green 1lb. to 200 gallons of water, the most effective remedy. Grease-banding should be practised in winter. No. 3.—There are a few eggs of the harmless beetle mite, but some hatched ones of aphis and Apple Psylla on this shoot. The worst pest is the Psylla, and the best spray for it is nicotine. We very much doubt whether any spray to use while the leaves are on the trees is strong enough to kill insect eggs; but a caustic spray is the best for winter spraying, and a very efficient one may be made by dissolving 2lb. of caustic soda and ¾lb. of treacle in 10 gallons of water. This must, however, be used only in winter.

Black fly on Cherry tree (*F. W.*).—The black fly of the Cherry is called Myzus cerasi. Its eggs are laid in late autumn on the shoots and suckers of the Cherry; they are black and shiny. Nothing is likely to kill these, but probably spraying with a caustic alkali wash about the end of February would destroy a considerable number just as they were ready to hatch. The time to spray after hatching is when the insects appear on the shoots, having hatched from the winter eggs, and before they reach the leaves. When they reach the young leaves, the latter soon curl up, and it is then difficult to reach them effectively. If the spraying is done sufficiently early,

there is no chance for the pest to spread, as they do not acquire wings for some little time. The best spray to use is Quassia and soft soap. A nicotine wash is also effective, but the former seems to clear away the honeydew which the insects produce in considerable abundance. It is improbable that the same species would attack Pear and Apple, though allied insects do, and can be combated in the same way. It has been recorded on Peaches, Plums and Currants. It usually leaves the Cherry in July; but to what other plant it goes is not known. Some good may be done by spraying now, but an earlier spraying would have been more effective. East winds or other weather conditions never "create" pests. The pest must have arisen in every case from a pre-existing living thing, but things that are adverse to the growth of the tree will, of course, cause the tree to suffer worse from the attacks of enemies than it would have done under more normal conditions.

KITCHEN GARDEN.

Salsify to thin (*North Devon*).—It is a pity that the plants were not thinned out sooner. Thin out to 7 inches apart. You might transplant a few of those pulled out, but we are afraid the roots would turn out forky and not of much value.

French Beans to replant (*D.*).—Yes, provided those plants thinned out are taken up carefully with a fair number of roots attached to them, but not without. The plants should be lifted as soon as they have formed two leaves and are about 4 inches or 5 inches high.

Broccoli (*C. B.*).—We know of no variety of Broccoli other than the white and brimstone coloured sorts excepting the popular purple sprouting variety. This is a variety that branches out like an ordinary Kale and produces small heads of Broccoli at the end of each branch. It is a very hardy and prolific variety, of good flavour, and is found most useful for giving excellent supplies from early in April until late in May. It is cultivated in the same way as ordinary Broccoli.

Cucumber disease (*J. P.*).—The Cucumber leaves are attacked by the fungus Cercospora melonis, causing what is known as leaf blotch. This is a very troublesome disease, spreading rapidly when conditions are suitable. Soft foliage is much more easily attacked than hard, and every opportunity should be taken to afford air. Thorough ventilation and frequent spraying with a solution of sulphide of potassium, 1oz. to 3 gallons of water, form the best means of checking the disease. The badly-attacked pieces should be burned, It is important to remember that the fungus grows on organic matter in the soil, and the latter should be thoroughly sprayed as well as the plant.

Tomato blight (*V. C.*).—Spraying with Bordeaux mixture before the disease appears is a preventive. Bordeaux mixture is made by dissolving in separate wooden vessels 3,000 grammes of copper sulphate (98 per cent. purity) and 2,000 grammes of quicklime. The former is best dissolved by placing it in an open canvas bag and suspending it in water. The latter should be slaked and allowed to stand until cool. About 60 litres to 80 litres of water (soft, if possible) should be used to dissolve each of these substances. When cool they are poured together into a third vessel (wooden) and made up with water to 200 litres. The mixture is then sprayed upon the plants by means of a powerful syringe and fine nozzle, and care taken to cover the plants completely. It is necessary to repeat the spraying at intervals of about three weeks.

Injury to Turnips (*W. T.*).—The Turnips are badly attacked by the Cabbage root maggot, and this is a very difficult pest to combat in the field. It is the grub of a rather small two-winged fly which lays its eggs near the root of the plant. An emulsion of carbolic acid, consisting of 1lb. of hard or one quart of soft soap dissolved in one gallon of boiling water and into which one pint of crude carbolic acid has been poured, diluted to thirty times the quantity with water, is said to be a good thing to apply to the plants; but this is almost impossible on any considerable scale. It is also reported that crude naphthalene is effective in checking the attack. In the field the best practice is to avoid growing cruciferous plants on the same ground except at intervals of at least four years, and to keep cruciferous weeds thoroughly in check, for the grub attacks a variety of cruciferous plants, including Radish and Charlock.

MISCELLANEOUS.

Diseased Tomatoes (*C. W.*).—The Tomato is attacked by the fungus Macrosporium solani. Diseased fruits should be removed and burnt as soon as seen, and the plants sprayed either with Bordeaux mixture or with a solution of potassium sulphide, 1oz. to 3 gallons of water. You may find black stripes on the stem, and diseased stems are better cut out and destroyed.

Copper sulphate in pond water (*B. F.*).—It is not likely that the water taken from your pond, where copper sulphate has been used at the rate of 2½oz. to 10,000 gallons of water, will injure your ordinary garden plants. It would, however, be advisable to try it on a few subjects before using it to any extent. Ferns might be more likely to suffer than other things.

Refuse water (*Doubtful*).—Refuse water from the pantry and kitchen may be used to advantage for watering garden plants, but care must be taken in applying it to such plants as Strawberries that the fruit is not touched by it. In all cases where liquids of this kind are used, the best results are obtained where the soil is properly aerated and contains a sufficient supply of lime.

Hyacinth bulbs diseased (*J. H.*).—The Hyacinth bulbs sent for inspection are slightly attacked by the Hyacinth bacteria rot. The bulbs will be found to be streaked with yellow on cutting them open, which is typical of this disease. Various animals have got into the bulbs and aggravated the trouble, among them eelworms and springtails. It would probably be best to give this soil a rest from this plant for a few years, as from what you say it would appear that the soil is infected with the trouble. It would be unwise to use these bulbs another year.

Coal-ashes and plants (*Mistress Mary*).—There is an unquestioned element of danger in the use of coal-ashes in such positions that growths will come in contact with them as they push through the surface. Have the ring well away from the crowns of the plants if you use ashes at all, but you would do far better to have recourse to one of the excellent soil fumigants advertised in THE GARDEN. These will respond to all the demands made upon them if they are applied strictly in accordance with the makers' directions.

Peach tree leaves for inspection (*A. H. Y.*).—We think it very unlikely that the treatment you speak of would have caused the dropping of the foliage. The appearance of the leaves is as though they had been syringed with some poisonous substance, but syringing when the sun was upon them might have caused it. Only in case the soil had become extremely dry is it likely that the leaves would have fallen otherwise. We presume no ammoniacal manure has been used lately.

Anemone leaves diseased (*Little Dene*).—The Anemone coronaria sent is attacked by the fungus Æcidium leucospermum. This fungus winters in the underground portions of the plant, *i.e.*, it is perennial in the tissues, and this being so, it is important to destroy all parts of affected plants. It is not quite clear from your letter whether the diseased plants are flowering or not, but we should suppose they were not. The spores that are being produced now in the little cups will distribute the disease widely over the others, in all probability, so that it would be wise to destroy the diseased plants as soon as possible.

Injury to Pelargonium leaves (*E. V.*).—We congratulate you upon the careful way in which the leaves you sent were packed. The crinkled appearance of the leaves is due to the atmosphere having been too damp about them. You will find on careful examination numerous small warts on the under surface of the leaves, and these, when they form on partly-developed leaves and dry up, as they will on exposure to drier atmospheric conditions, cause the leaves to appear crumpled, and they never develop properly. Keeping the air about the plants somewhat drier will result in healthy growth in the future.

Treating garden soil (*A. B. C.*).—In all probability the soil is lacking in humus, which is as important as, or more so than, the lime; and if this is so, the application of the latter in solution will be of little use. A better plan would be to first try Wakeley's Hop Manure, advertised in our columns, by sowing it on the surface and either watering it in or pricking it in with a fork. Unfortunately, with sandy and peaty soils the water runs away all too quickly, and its benefits, as well as those of liquid manures, are not felt by the crops. Soot and lime are both excellent fertilisers, and a sowing of these on the surface, equal parts of each, to be pricked or washed in, would be a far better way than applying lime in solution.

Various questions (*D. M. C.*).—1. The flowering plant is Ecbalium Elaterium, which grows wild in South Europe and belongs to the Cucurbitaceæ. 2. The Currant is attacked by aphis. Spray with Quassia and soft soap without delay. 3. The Plum is suffering from silver leaf. Cut out and burn all affected branches. There is no known cure. 4. The buds of the Black Currant are attacked by the big-bud mite. No sure cure is known. 5. The Hollyhock is attacked by the Hollyhock disease caused by the fungus Puccinia malvacearum. Spray with a rose red solution of potassium permanganate and burn badly-diseased portions. 6. The leaf labelled "Melon" appears to have been scalded. We have done our best with these specimens, but they were so badly packed that it was difficult to be quite sure about some of them. Tin boxes are far better than cardboard if no means are taken to keep the specimens moist.

"American Balsam" (*G. E. Y.*).—The root appears to be that of one of the Knot-grass family, Polygonum sachalinense probably, the plant being a great nuisance in small gardens, and the bane of many a gardener. It is not impossible—if a little difficult—to eradicate it, and by persevering with a "spud," cutting away every crown as it appears, its terrors for you would soon be lessened. Digging it out is the best remedy, though, unfortunately, in its travels from garden to garden the roots take shelter under the pathways, flags and asphalt that lie between. The only way to deal with these parts is to cut closely down on each side of the pathway continuously, and in this way prevent growth. When this is done, the roots soon become exhausted and perish. Though of a troublesome nature when it infests a garden, it is less difficult to destroy than either Gout-weed or Colt's-foot.

Names of plants.—*W. L. Farmer.*—Veratrum album. ——*Rosa.*—Muscari comosum plumosum.——*W. D. R. D.*—Rhododendron caucasicum. —— *B. D.*—1, Saxifraga Geum var. gracilis; 2, Sedum rupestre; 3, S. reflexum variety; 4, Hieracium aurantiacum.——*J. K. M.*—1, Rose, cannot identify, send better blooms and foliage; 2, Astrantia major.——*Egypt.*—So-called Mummy Peas are well known. The Peas are placed in the hands of the mummy by guides and then sold to credulous tourists. The name of the Pea sent is Pisum elatius, and it is a common plant in the Mediterranean region.——*J. Dickinson.*—Cream Rose, Mme. Hoste; buff, Anna Ollivier.——*Cocker.*—1, Duke of Edinburgh, 2, Baroness Rothschild; 3, Mrs. John Laing; 4, Augustine Guinoisseau.

SOCIETIES.

ROYAL AGRICULTURAL SOCIETY'S SHOW AT NORWICH.

HORTICULTURAL SECTION.

THIS section of the Royal Show at Norwich was at once voted a success, and far surpassed anything of the kind ever seen in East Anglia before. It was the natural season of the Rose, Sweet Pea and the best of the herbaceous flowers, and consequently the colours and forms of these were much better than those staged at the Temple Show. Indeed, the whole exhibition, judged from the standpoints of quality and beauty, was in advance of the large London shows. Congratulations are due to the Hon. John Boscawen and Mr. Peter Blair for the excellent arrangements. On all sides exhibitors and visitors were praising the work of these two gentlemen.

In the competitive section, Class 1 was for a group of miscellaneous plants in and out of bloom, in a space not exceeding 350 square feet. First prize was secured by Messrs. James Cypher and Sons, Cheltenham, with a lovely group; and Mr. W. A. Holmes, Chesterfield, was second. The plants in both exhibits were of very high quality.

Class 2 was for a collection of Orchids, 100 square feet of the stage, with Palms, Ferns and other foliage plants. Messrs. James Cypher and Sons were the only exhibitors, but richly deserved the award of first prize and gold medal for their exquisite exhibit.

Class 3 was not contested. Class 4 was for 100 square feet of tuberous Begonias. It was contested by two well-known growers of this flower, who sent of their best. Messrs. Blackmore and Langdon, Bath, secured first prize with extra well-grown plants, and they were awarded a certificate for a new double white variety named Mrs Peter Blair. Messrs. Thomas S. Ware, Limited, Feltham, were second, their collection containing many plants of a massive pink variety named Lady Cromer.

Class 5 was for a display of herbaceous flowers, Bamboos, Liliums and foliage, 30 feet by 10 feet. First prize here went to Messrs. William Artindale and Son, Sheffield; second, Messrs. W. and J. Brown, Peterborough; third, Messrs. G. Gibson and Co., Leeming Bar, Bedale, all staging flowers of good quality.

In Class 6, for a collection of stove and greenhouse plants in bloom, space 20 feet by 10 feet, Messrs. James Cypher and Sons were again the only exhibitors, and took first prize.

In the classes for Carnations, Mr. C. S. Waters led with an exhibit of very good quality, Edith Waters, Carola, Rose Pink Enchantress and Lady Audrey Neeld being very fine, the latter perhaps being the most conspicuous Carnation in the show. The second prize fell to a private grower, Mr. W. Allen, gardener to the Hon. C. Harbord, whose vases of Cecelia, Beacon and King Arthur were very good indeed, but the group rather lacked variety. The third prize also fell to a private grower, Mr. A. V. Coombe, gardener to Lord de Ramsey, Haviland Hall, Norwich, with a somewhat less bright exhibit.

Class 8 was for a collection of cut hardy flowers (Roses excluded). This was very strongly contested, six exhibits, all wonderfully good, being staged. The judges, however, had no hesitation in awarding the first prize to Colonel B. J. Petre, Westwick House, Norwich (gardener, Mr. George Davison). His bunches and flowers were grand, and the arrangement was all one could desire; indeed, we have never seen better quality or more artistic arrangement anywhere. Messrs. G. Gibson and Co., Bedale, were a good second; Messrs. Harkness and Son, Bedale, third; and H. C. R. Fellowes, Esq., Shotesham Park (gardener, Mr. L. Smith), fourth.

In Class 9, for a collection of cut Roses, 15 feet by 5 feet, first prize went to Mr. F. M. Bradley, Peterborough, for a beautiful arrangement of the choicest flowers; second, Messrs. W. and J. Brown, Peterborough; third, Messrs. G. Mount and Sons, Canterbury.

There were five entries in the class for a collection of Sweet Peas in a space 20 feet by 5 feet. In a very close competition Mr. R. Holmes of Tuckswood Farm, Norwich, scored with a collection of Sweet Peas remarkable for the size of bloom and brilliance of colouring, Thomas Stevenson, B 78, Edith Taylor, Earl Spencer and Charles Foster being very fine. Second prize was awarded to Mr. E. W. King of Coggeshall, who also had a good exhibit, Marquis, Paradise Ivory, Queen Mary and Anglian Crimson being the best of the varieties. Messrs. S. Bide and Son, Alma Nurseries, Farnham, were placed third, Bertha Massey, Florence Nightingale and Spencer America being the best. Other exhibitors in this class were Mr. W. J. Unwin of Histon, Cambridge, and Mr. T. Cross of Bury St. Edmunds, both of whose exhibits would have scored in many competitions.

For a collection of eight kinds of vegetables, His Grace the Duke of Portland, Welbeck (gardener, Mr. Gibson), was first with a beautiful arrangement of high quality produce; second, the Hon. W. Lowther, Campsey Ashe; third, Colonel Rous, Worstead House, Norfolk.

For a decorative display of ripe fruit, the only exhibitor was the Duke of Portland, who had a beautiful and representative collection which fully deserved the first prize awarded.

NON-COMPETITIVE EXHIBITS.

Messrs. Sutton and Sons, Reading, had a large stand at the entrance, where they were showing specialities of their own strains of vegetables and flowers. They had Sweet William Salmon Queen in profusion, Schizanthus and Sweet Peas. In the tents they had groups of Gloxinias and tuberous Begonias, and a choice stand of vegetables, being awarded a large gold medal.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE ROSE SHOW OF THE YEAR.

THE ever-increasing popularity of the Rose was emphasised in an unmistakable manner at the annual London exhibition held by the National Rose Society at the Royal Botanic Gardens, Regent's Park, on Friday of last week. Although the exhibition blooms were not of quite so high a standard as we are accustomed to see at this show, due, no doubt, to the early season, this was more than compensated for by the excellence of the decorative varieties. The wonderful strides that have been made in these Roses during the last decade was one of the most noticeable features of the show. In place of the heavy, massive Hybrid Perpetuals, we now find exhibitors making use of the lighter single and semi-double blooms, which lend themselves admirably to artistic arrangement. Even among these notable developments have taken place during the last few years, and it was interesting to note how growers and exhibitors are realising the possibilities of those charming shades of pink such as we find in Lyon and Irish Elegance.

In the table decorations, too, these colours are being largely used, the first-prize dinner-table decoration, arranged by Miss Florence Molyneux, being composed of Roses Lyon and Irish Elegance, with foliage principally of Rosa rubifolia.

Generally speaking, the new seedling Roses were disappointing, two only receiving the premier award of a gold medal, several others, however, receiving the lesser awards of silver-gilt medals or cards of commendation. But there was no new Rose to create the sensation that Rayon d'Or caused last year.

The arrangement of the exhibition was admirable in every way, and reflected the greatest credit on the hon. secretary, Mr. E. Mawley, and his committee. The large tent, which had been previously used as a ballroom, was a great improvement, the overhead awning keeping the atmosphere comparatively cool on a sweltering hot day. A descriptive report of the various classes will be found on page 339.

NEW PLANTS AT THE OLYMPIA SHOW.

Although not quite so numerous as they have been on some previous occasions, the new plants that gained awards at the great Olympia Show last week were, in many instances, beautiful and interesting. Appended will be found brief descriptions of them, as well as of a new Strawberry that received an award from the judges.

Rose Frances Charteris Seton.—A very charming and beautiful addition to the Hybrid Tea section. The colour is rosy red, with salmon shading, the petals heavily reflexed. The variety is delightfully fragrant, and herein lies the greater charm. From Messrs. William Paul and Son, Waltham Cross. Award of merit.

Rose Mrs. E. Allen.—Also of the Hybrid Tea set, and in its buff yellow, flesh or salmon-centred flowers there is a beauty which is ideal. Award of merit.

Rose Leslie Holland (H.P.).—A strikingly handsome Rose in the crimson-red coloured class, and of powerful fragrance. A greatly-admired Rose. These two were exhibited by Mr. Hugh Dickson, Belfast. Award of merit.

Gladiolus nanus Queen Mary.—This is one of the early-flowering class, the flowers being a reddish scarlet colour spotted with white. Exhibited by Messrs. Smith, Caledonia Nursery, Guernsey. Award of merit. See illustration on page 333.

Dracæna Deremensis Warneckii. — A most distinctive-looking plant, the leaves, which are of dark olive green, having a longitudinal white line on either side of the midrib. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Sweet Pea Lady Knox.—The body colour of the flower is cream, the unique feature of the variety being the edging of buff on the standard, which flushes into the centre of the flower. Quite a delightful variety. From Messrs. Dobbie and Co., Edinburgh. For illustration see page 334.

Pelargonium Lord Bute. — A dark-coloured fancy variety, and one of the most distinct. From Mr. Treseder, Cardiff.

Odontoglossum ardentissimum Queen Mary.—A first-class certificate was granted to this handsome Odontoglossum. The individual flowers are large and regular, having clear purple blotches with a margin of white. Parentage: O. nobile × O. crispum. Shown by Messrs. Sander and Sons, St. Albans.

Lælio-Cattleya Sylvia.—This novelty also gained a first-class certificate. It is a beautiful hybrid of a deep chrome yellow colour. The lip is of a remarkably bright crimson-scarlet hue. Parentage: Lælio-Cattleya Phœbe × L.-C. Ascania. Shown

by Messrs. Charlesworth and Co., Haywards Heath.

Odontoglossum eximium King George.—A striking novelty, with well-shaped flowers. The predominant colour is rich deep claret; the flowers are edged silvery white. Award of merit.

Odontioda Bradshawiæ Sander's variety. A very choice hybrid, raised from Cochlioda noetzliana × Odontoglossum crispum. The plant carried a few fully-expanded flowers and a number of promising flower-buds. The colour is orange red, and the flowers are larger than the general run of Odontiodas. Award of merit.

Odontoglossum amabile The Queen.—A large-flowering variety, with flowers about 4 inches across. The ground colour is cream, spotted with claret. Award of merit. These three were shown by Messrs. Sander and Sons.

Cattleya Mossiæ Queen Mary.—A lovely variety, with delicate white flowers. The lip is tinted deep orange, suffused with a tint of pale purple. Shown by Messrs. Mansell and Hatcher, Limited, Leeds. Award of merit.

Lælio-Cattleya Martinetti King George V. A truly grand variety, with bold flowers of a pleasing purplish hue mingled with a bronze tint. The lip is broad and of a very deep maroon purple. Award of merit.

Odontoglossum Olympia.—A handsome variety, shown in the pink of perfection. The plant exhibited carried nine fully-expanded flowers and four opening buds on a strong spike. The large flowers are of perfect shape, marked and spotted with chocolate on a white ground. Parentage: O. crispo-harryanum × O. amabile. Award of merit.

Cattleya dupreyana. — An excellent variety of remarkably good shape. The colour is a lovely deep mauve. The lip is almost vermilion, with a bright sulphur yellow eye. These three were shown by Messrs. Charlesworth and Co.

NEW FRUIT.

Strawberry Peter's Olympia.—An excellent variety, for which we predict a good future. It was raised by crossing Givon's Late Prolific on the free-fruiting variety St. Antoine de Padoue. Plants were exhibited showing the habit of growth and free-fruiting character of this novelty. The fruits are of useful size and excellent in flavour, resembling Givon's Late Prolific, but not so dark in colour. Shown by Mr. H. P. Sturgis, Leatherhead. Award of merit.

FORTHCOMING EVENTS.

July 18.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square. Lecture at 3 p.m. on "Irises," by Mr. W. Rickatson-Dykes, M.A. Highland and Agricultural Society's Show at Inverness (four days).

July 19.—National Rose Society's Provincial Show at Ulverston. North of England Horticultural Society's Show at Newcastle. Scottish Royal Arboricultural Society's Exhibition (four days). Nottingham Flower Show (two days). Liverpool Horticultural Association's Sweet Pea Show.

July 20.—Roehampton Flower Show.

July 22.—Paisley Florist Society's Show.

NOTES OF THE WEEK.

Horticultural Club outing.—The annual outing of the members and friends of the above club will take place on the 21st inst. Sir Frank Crisp, vice-president of the club, has kindly invited the party to visit Friar Park, Henley-on-Thames, and the outing promises to be of exceptional interest. Notices, giving full particulars, have been sent to members.

General Bulb-Growers' Society of Haarlem (Holland).—An award of merit has recently been granted to each of the following by the floral committee of the above society: Iris hispanica Amethyst, with finely-formed flowers, soft blue and violet; lip light blue, spotted orange and yellow; obtained from seed. Iris anglica Alexandre Dumas.—Flowers very large, azure blue, spotted dark indigo; lip with a large white spot, striped yellow; obtained from seed. Iris Kæmpferi Wasaka.—Flowers of an extraordinary size, dark purple; obtained from seed. Anemone Single L'Unique.—Flowers salmon rose, a very fine colour; petals broad and round; obtained from seed.

Royal Horticultural Society and Colonial visitors.—On the second day of the Olympia Show, the Royal Horticultural Society gave a complimentary luncheon to the Premiers, Governors and other officials of the British Colonial Empire visiting London. A fairly large and highly distinguished gathering was the result, speeches being made by Sir Daniel Morris, K.C.M.G., the Hon. Sir William Hall Jones, K.C.M.G., Sir Thomas Elliott, K.C.B., Sir Albert Rollit, D.C.L., LL.D. and the Hon. J. H. Turner. Owing to the acoustic properties of the room being far from good, and the fact that the representatives of the horticultural Press were placed as far away from the speakers as possible, we are unable to give any details of the speeches, which, so far as we could gather, dealt mainly with the work of horticulturists in the Colonies.

Royal Scottish Arboricultural Society. The annual excursion of this society was held in the course of the week ending July 1. The members to the number of over seventy travelled to Kelso on Monday, June 26, and dined together in the Cross Keys Hotel, their head-quarters during the excursion. During the following days many interesting places were visited, and a large number of splendid trees and fine forests inspected. Among the various places visited were Bowmont Forest, belonging to the Duke of Roxburghe; Marlefield, the property of Mr. Athole Hay; the estate of Colonel Scott-Kerr at Sunlays; the large nurseries of Messrs. Laing and Mather, Kelso; the magnificent gardens and policies, &c., of Sir George Douglas at Springwood Park; and Newton Don. Visits were also made to Sir Richard Waldie Griffith's estate of Hendersyde, that of Lord Dunglass at Springhill, that of the Earl of Home at The Hirsel, Ford Castle, now the property of Lord Joicey, and the historic field of the Battle of Flodden. Another day was spent in the Jedburgh district by way of Maxton and Muirhouselaw, Ancrum, Mount Teviot, Hartrigge, Ferniehirst Castle, Jedburgh Abbey and Queen Mary's House. The concluding day (June 30) was spent in visiting the plantations of the Duke of Buccleuch in Eskdale and Liddesdale. The social functions included the dinner on the evening of the arrival at Kelso; a luncheon given by the Duke of Roxburghe; the annual dinner in the Cross Keys Hotel, Kelso; a luncheon in the Court Room, Coldstream, kindly given by the Earl of Home; a lunch at the Spread Eagle Hotel, Jedburgh; and lunch and tea given by the Duke of Buccleuch on the occasion of their visit to his Langholm estates. The whole excursion was a highly enjoyable one, and much credit is due to Mr. Galloway, the secretary and treasurer, and all who assisted in organising this meeting.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Abutilon vitifolium.—I quite agree with your correspondent Mr. W. A. Cook (page 311) regarding the attractiveness of the above flowering shrub. The greatest drawback, however, is that after being planted ten or twelve years (and when one is priding himself upon them) the shrubs suddenly show signs of decay and eventually die outright. We have tried various methods and remedies, including hand-picking of the seed-pods, to prevent any undue strain upon the plants, while on others we have shortened back some of the main branches; but all our efforts have failed to lengthen their life. I referred to this subject in THE GARDEN for July 2, 1910 (page 330). Whether this is a disease or not I cannot say, but I am rather inclined to believe that ten to fifteen years is the length of the life of the plant. If I should be wrong in that belief, perhaps some of your interested correspondents might be able to put me right. —F. W. RICH, *The Gardens, Elfordleigh, Plympton.*

The carpet-bedding at Eastbourne.—Visitors to Eastbourne interested in the "great gardening art of the day" will be very delighted with the Corporation carpet-bedding, which this year has been very cleverly thought out. There are several carpet-beds; the finest for effect, to the writer's mind, is nearest the Bandstand. Here we have Spergula (Sagini pilifera) showing admirers "in language of flowers" how the town has risen from small beginnings with a Local Board in 1859 to its present great Corporation borough in Coronation year 1911. This important bed, a real lesson to anyone interested in this kind of bedding, contains a wonderful and valuable collection of something like thirty odd varieties of plants and succulents. It has a groundwork of the pretty low-growing Herniaria glabra, interwoven with Antennaria tomentosa and Alternanthera versicolor grandis, aurea and Kingii prominent above. The background, raised and undulating, is particularly beautiful. Here abound Aloe arborescens, A. distans, Grevilleas, Cannas, Eucalypti and Anthericums, also a collection of various Echeverias, all lending a fine subtropical effect. The writer was particularly pleased to notice the pleasure these carpet-beds gave the people and to think that the Corporation have such a worthy and instructive master in the art in Mr. Joseph Smith. We have so few really first-class men now living able to produce this kind of work with such fine effect; we so continually hear of deaths and changes in the control of our great public parks and gardens.—H. J. SELBORNE BOOME.

Rose Marechal Niel.—Like your correspondents "A. P." in THE GARDEN for April 29, J. Brown, Balminnock (June 10), and "Avon" (June 24), I was much interested in the articles relating to Rose Maréchal Niel. I have spent many years in trying to discover a cure for that dreaded disease canker, and could write pages of failures in stocks, cuttings and layers, also cow-manure, Stockholm tar, patent knotting, Potato starch and various other methods, but no success. I well remember the time in the early eighties of last century when this Rose used to grow and flower, and canker was practically unknown. It made long ramping shoots like Solfaterre, its

pollen parent; but the stock we used to work it on got lost to commerce, and Maréchal Niel lost vigour in consequence. The Editor will no doubt remember my appeal to him to find this stock (Isabella Gray), the seed parent of Maréchal Niel, and he was good enough to put me in communication with M. Jules Gravereaux, president of the French Rose Society, who promised to send it to me, but he also found his plants dead. I have his letters to that effect. I could not obtain it in this country. Fortunately, a good friend at Markinch in Scotland found it in the catalogue of Messrs. Conard Jones and Co., West Grove, Philadelphia, U.S.A. I at once wrote them and sent on the money, and have since received six plants of Isabella Gray, which I have established and growing well, and which I intend to use for the purpose of stocks for Maréchal Niel. From previous observations I feel satisfied that we shall, after all, cultivate Maréchal Niel satisfactorily, and in the course of a little time entirely eliminate canker. I hope your correspondents J. Brown, "A. P." and "Avon" will give my suggestion a trial, and I feel certain that they will be satisfied with the result. I would be pleased to answer any further enquiries possible in connection with this matter (through you, of course, Mr. Editor), and I might mention that Mr. Pyle, the president of the Conard Jones Company, Rose-growers, of West Grove, Philadelphia, U.S.A., is now in London, and I feel sure he will be glad to answer any questions in reference to this Rose. I have his address.—EDWARD F. KEMP, *Clapton, N.E.*

Wanted: An exhibition artist. — If the true flower show artist has not yet been evolved, it is to be hoped that, in the interests of Art as allied to Horticulture, such an one will be discovered before the great International Exhibition of next year is held. All flower shows, with few exceptions, are arranged on the stereotyped straight lines, and evidence exceeding barrenness of artistic skill in design. No doubt excuse is found in the common shapes of tents under which such shows are mostly held, and the ordinary form of narrow tabling which margins each side of the allotted spaces for visitors, also the demands of exhibitors for areas which cannot be afforded and their tendency to crowd everything they wish to exhibit into their allotted space, thus creating a solid wall of flowers or plants of the most monotonous kind, rather than creating something so charming that the eye is at once arrested and held in admiration for what is thus presented. Were tents made of round or broad oval form, and all descriptions of staging of a wooden nature severely ignored, compelling every group or collection or class to be placed on the ground and in round, oval, or serpentine form, what a gain in artistic effect would result! What can be more unattractive than a 100 feet run of Pæonies, or giant Poppies, or even of Sweet Peas and so on, making mere solid banks and nothing more? To see these masses of flowers growing on their plants in the open ground is indeed a glorious sight; but when cut, set up in compact bunches and in crowded monotonous lines, the appearance is anything but pleasing. No doubt at flower shows, as a rule, there are far too many exhibits, hence crowding. Were these shows more limited in material and rigidly restricted to the spaces allotted, with the object of creating one beautiful display, how much would be gained! When recently Messrs. Waterer arranged a Rhododendron exhibition at the Royal Horticultural Hall, apart from the great beauty and rich colouring seen in the flowers, visitors were enraptured with the arrangement, which was so delightfully pleasing, not a straight line being in evidence. Would that the ordinary shows of the Royal Horticultural Society could be as charmingly designed!—D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

OUTDOOR FRUITS.

STRAWBERRIES.—The layering of sufficient plants for making new plantations should be done without delay, as it is desirable to have suitable specimens for this purpose about the middle or towards the end of August. It is sometimes prudent to renew the stock of varieties which are showing signs of deterioration. In cases of this kind sufficient plants should be procured from the nurseryman to make a plantation for producing runners next year. Here we put in annually sufficient young plants of each variety for layering purposes only. The flower-spikes are removed before the flowers are open, so as to hasten the development of runners. This, of course, greatly facilitates the work of layering, and is the only means of procuring clean, healthy plants for putting out early in the season. Old forced specimens which were saved for planting out may be put in as soon as possible. The ground selected for their reception should be deeply dug and well enriched with manure. Remove all the old leaves and a good portion of the old soil from the roots, and see that the roots are well soaked with water before putting them out. Old plantations which are to be discarded should be grubbed up as soon as the crop is cleared, so that the ground can be prepared for other crops. The plants should not remain on the ground longer than three years.

PLANTS UNDER GLASS.

Malmaison Carnations.—The layering of these may be commenced as soon as possible after flowering. A shallow box frame will be found convenient for this purpose, and the frame may be stood on a border with a southern or western aspect. A quantity of fine soil will be required in which to peg down the shoots. Two parts loam to one of leaf-mould, with a good sprinkling of sand, form a suitable compost. Keep the layers shaded during bright weather. The frame must also be kept rather close, and the layers syringed two or three times a day till they are rooted. At this period the plants must be gradually inured to full exposure. A good number of one year old plants should be selected for potting into large pots. These will, of course, make splendid plants for flowering next season. Some of the Tree Carnations may be treated in the same way.

Calceolarias.—Sow seeds of these now in shallow pans in a light, porous compost. Much care is necessary in sowing these, as the seeds are very minute. Cover the pan with glass and keep in a cool, shady house till the seeds have germinated.

Clerodendron fallax.—This is a very handsome and useful plant when well grown. Seeds may be sown now for flowering next spring. After germination the young plants may be grown in a temperature of about 60°. Do not let them suffer for the want of a shift into larger pots, and give them a fairly substantial compost in which to grow. The plants that were raised in the spring must be given liberal treatment when they have filled their flowering pots with roots, or they will probably lose some of their leaves. Give them plenty of room to grow and keep them near to the glass.

Humea elegans.—Seeds of this may now be sown in pans. Keep them in a warm, moist house till the seedlings are through, when they must be placed in a cooler house.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

SEEDS of early Cabbages for autumn planting should be sown now. There are numerous varieties from which to make a selection, and those recommended by the leading nurserymen as suitable for sowing at this season are generally to be relied on for hardiness in withstanding the winter and in not being liable to run to flower in the spring. Success, however, depends a good deal on cultivation. Do not plant on a too rich and loose soil, for, should the autumn and early winter be mild, a rapid and soft growth takes place, which is sure to suffer during severe weather. The quarter from which the Onion crop has been cleared forms a suitable position for planting. If the ground is hoed and raked to clear it of weeds, the lines may be drawn and the plants dibbled in without any further ground preparation. If the weather is hot and the ground dry, one watering to settle the soil about the roots is all that is required.

Autumn-sown Onions are now approaching maturity; and although these are principally grown for use in a green state and are generally supposed not to keep well, this is because the crop is often left too long in the ground. They should be pulled up before any sign of splitting is observed, and, if well harvested, will keep for a considerable time.

Shallots should be thoroughly harvested by drying in the sun before being placed under cover. The store should be cool, dry and airy. They may be easily kept there in sound condition till quite late in the spring.

Maincrop Onions should be liberally supplied with liquid manure if large bulbs are desired, and during dry weather, if the ground is well drained, it is hardly possible to over-water them. The same careful method must be adopted in the harvesting if a continuous supply of bulbs is in demand through the winter.

HARDY FRUIT GARDEN.

Strawberries.—If plants are required for an early plantation, no time should now be lost in securing runners for that purpose. The best runners are those from young plants that have had their flower-trusses removed. Small pots filled with a moderately rich compost and a piece of rough turf in the bottom to assist drainage, should be placed in convenient groups among the rows with a runner on each secured in position with a peg or small stone.

Raspberries should have all suckers removed that are not required for next season's fruiting or for forming fresh plantations, and a good mulching or frequent waterings with liquid manure will greatly assist them at this time. A recent tour through the fruit-growing district of Perthshire shows the early Strawberry crop suffering severely from drought, but Raspberries do not seem to have suffered to the same extent, and give promise of an abundant crop.

Newly-planted Trees still require careful attention in the way of water at the roots during dry weather, and mulching with some suitable material that will help to retain the moisture. The summer pruning of wall trees will also need to be continued. Preserve enough of the young growth for filling up any gaps that may occur, so that the trees will be kept well furnished. Thin the crop where it is heavy, and should vermin be troublesome, syringe or spray before it has time to disfigure the trees.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE ROSE GARDEN.

SOME OF THE NEWER EXHIBITION ROSES.

(*Continued from page* 318.)

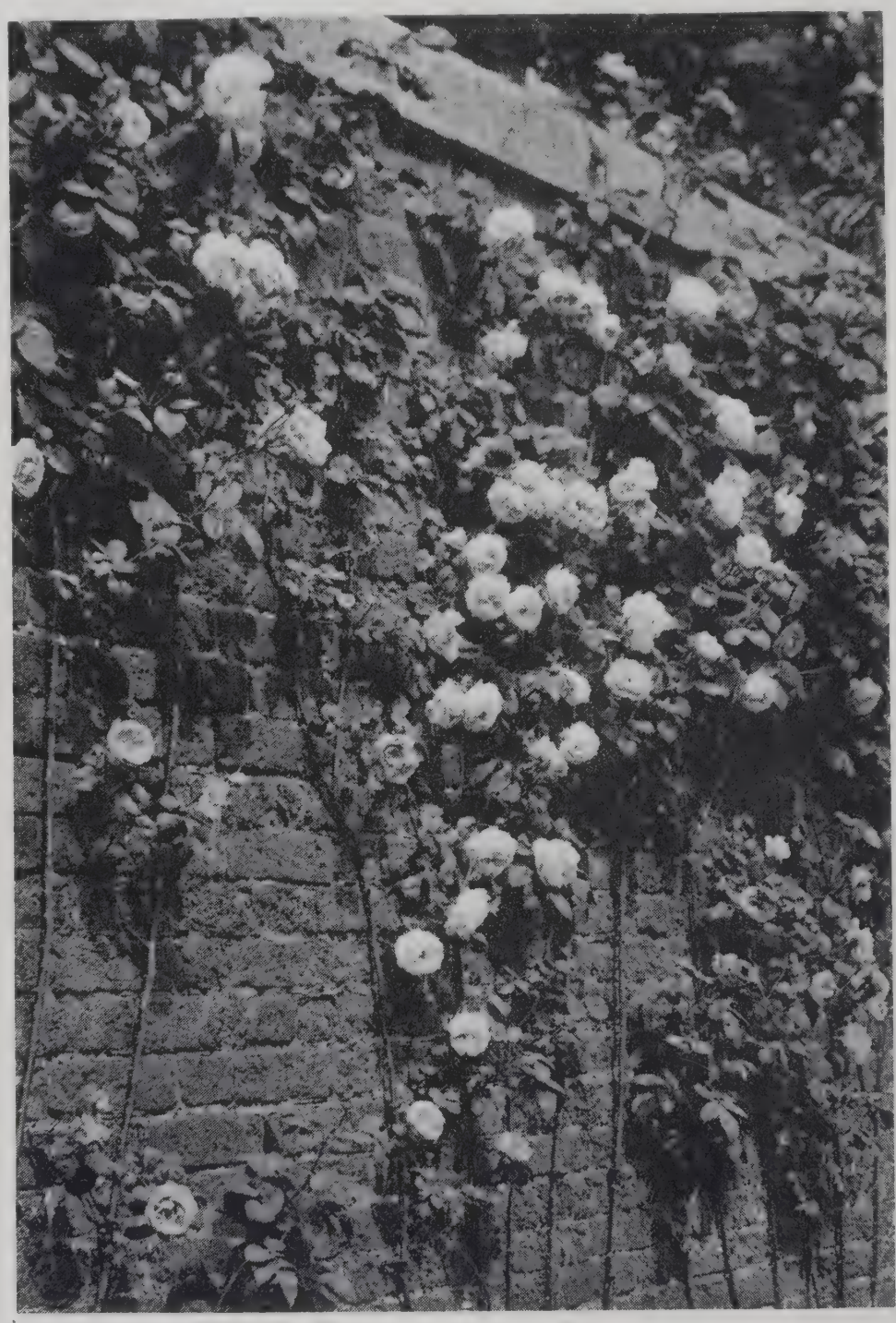
MRS. WALTER EASLEA is one of the few rich-coloured Hybrid Teas that yield show blooms. That it will be wanted as an exhibition flower is evident from the splendid form and rich colouring of its half-open blooms, reminding one of a Mrs. W. J. Grant with the richer colouring of a Marquise Litta. The growth is splendid and it is an abundant bloomer, but must be freely disbudded. If the flowers are allowed to hang long on the plant, they change to a purplish crimson, which mars the general effect. It has a most delicious fragrance. Margaret has come very fine this year, and in my opinion it is one of the best pink Roses as regards form. The great depth of the blooms is really marvellous, and, being very double, this is all the more accentuated. I predict a great future for this Rose.

Comtesse Icy Hardegg has also been very fine as maidens, but I am afraid it is not sufficiently strong in growth as a cut-back. Marchioness of Waterford should prove to be good this year, as it has remarkable lasting qualities. The colour is good, salmon pink, with silvery blush inside the petals; the flowers bold and massive, produced on erect stems, making it a good garden Rose also; one of the best Messrs. Hugh Dickson have given us. Mrs. Arthur Munt is of most delicate colouring, peach on deep cream, which develops to ivory white; a splendid show flower, and a variety that well deserved a gold medal, although it missed this honour. William R. Smith is a splendid new Tea Rose, both in bloom and in growth, worthy to rank among the dozen best Teas in the whole collection. The fine massive blooms have great staying power, a valuable trait in the present season.

Mrs. Wakefield Christie Miller is one of the large-flowering sorts that will help us to fill up our back row in the exhibition box. What a colour it is, quite unique, and one that attracts at once. It is a grand novelty. Kronprinzessin Cecilie has been quite large enough and shapely enough with me for an exhibition bloom. There is such a distinctive character about this Rose, both in colour and form, and its growth is excellent. The colour is a deep glowing rose pink at the base of the petals, and the edges of the petals and partly below the edge are almost white, a very striking contrast. Lady Ursula is fine, reminding one of Admiral Dewey and Viscountess Folkestone blended. The form is good, and it is a nice solid flower. The growth, too, is first-rate. Mrs. Maynard Sinton is another of the great Roses, certainly one of Messrs. McGredy and Sons' best, and all the more valuable because of its sweet fragrance. Another splendid Rose from the same firm is Ethel Malcolm, an almost pure white Mrs. W. J. Grant, but the bloom is larger and fuller than this well-known sort. The growth is so good that it is certain to gain great popularity when it becomes better known, both for the show-box and for garden decoration. It is a great gain to have Roses that are suitable for both showing and for decorating our gardens, for if we do not all exhibit, we like to be able to cut exhibition blooms for the house, and one can be sure of doing this with Ethel Malcolm.

I liked the appearance of Mrs. Frank Workman, one of Messrs. Hugh Dickson's novelties of this year, but cannot give a definite opinion just yet. Both in form and colour it is a very distinct flower. Countess of Shaftesbury will certainly be a winner, for it is the high-pointed shape exhibitors love so much. Both this and Leslie Holland, from the same raisers, have come to stay, and we cannot well have too many crimson show flowers, providing they are distinct.

Other fine show Roses of recent introduction are Walter Speed, Mrs. Alfred Westmacott, Nita Weldon, Claudius, Miss Cynthia Forde, Lady Alice Stanley, Mrs. E. J. Holland, Mrs. Arthur E. Coxhead and Mrs. Herbert Stevens; and no doubt we shall all be wanting Edward Mawley and Mrs. Joseph H. Welch, for I believe these will prove to be two of the most wonderful exhibition Roses that have been introduced for some years.



ROSE BLAIRII NO. 2 AS A WALL PLANT.

ROSE BLAIRII No. 2.

THIS beautiful old Rose has been particularly fine this year with me. I have it growing as a free bush, the growths practically left unpruned, and there has resulted quite a wealth of bloom on the almost horizontal branches. What a lovely pleasing colour it is, as delicate as a Tea Rose in its tinting of rosy blush. The flowers are very large, double and of a beautiful regular form. It is a splendid wall Rose, as may be seen in the illustration, and it is also seen to great advantage as a standard or pillar. These old Roses should not be lost sight of, as, apart from their associations, they possess such a vigour of growth and decorative beauty when grown well that they give to any garden quite a distinguished appearance. P.

FRUIT GARDEN.

THE COTTAGE GARDEN STRAWBERRY-BED.

THERE must always be many readers of THE GARDEN, young ones more particularly, who have only recently acquired gardens of their own, a possession which generally brings with it much enthusiasm, satisfaction and delight. It affords a subtle, keen and innate pleasure to the average young man which no words can describe, and which scarcely any other possession is capable of doing. A young friend of mine devoted most of his winter evenings last year to trenching his new garden by candle-light, his young wife sarcastically remarking that he had burnt more candles and matches over the work than the job was worth! Jealous, no doubt, of the superior attractions of the garden! Another one declares that his garden has cured him of the bad habit of lying in bed late in the mornings, and that his first thoughts on waking are of his garden, wondering how much growth his Tomatoes, Cucumbers, Marrows, Beans and Peas have put on during the night, and compelling him to rise betimes in the morning to measure them!

It may be a cause of wonder to some why I am writing of planting Strawberries now, of all times in the year, when most people are engaged in enjoying the fruit or in converting it into a valuable conserve for winter use. I write now because July is the best time in the year to plant Strawberries. By planting in July you will secure next year in June as heavy, or heavier, crops of high quality fruit as are obtained by later planting in two years. There is a time to do all things in a garden, and that man succeeds the best who does that thing at the proper time. In a new garden a piece of ground large enough for the purpose will, no doubt, be now available, and no time should be lost in preparing the bed to receive the plants towards the middle or end of July. On the other hand, in gardens already under crops, the grower will have to wait a week or two until his early crop of Peas, Potatoes or Cauliflowers has been

cleared away. These should be cleared by the middle of July.

Position of the Bed.—Any open part of the garden will do, but avoid a too sunny and hot position, or the plants will be burnt up with drought in summer and the fruit damaged. As far as the cottage garden is concerned, the matter of soil generally resolves itself into "Hobson's choice." If it is a deep, rather retentive loam on gravel or some other open subsoil (securing free drainage), so much the better; but of whatever nature the soil is, deep culture and generous manuring must precede planting.

Preparing the Bed.—Its size must, of course, be regulated by the wants and wishes of its owner. If you must have three rows in a bed, the bed should be 5 feet wide; if four rows, 15 inches wider; and so on. The rows should be 15 inches apart, and the plants in the row the same distance apart. The first thing to do after deciding as to the size of the bed is to trench it 2 feet deep. This is often a tough job, but it has to be done if success is to follow, and often the pick has to be used instead of the fork, the ground being so hard and unyielding. The first step to take in trenching is to open out a trench at the bottom of the bed to the depth above mentioned and of a width of 18 inches. The whole of the soil from this trench must be cleared out and wheeled to the top of the bed to fill in the last trench when the trenching is finished. We will now suppose that we have got the open trench before us. The first thing to do is to break up the bottom of the trench as deeply as possible with a fork, simply turning it over and leaving it there. This will help to aerate the subsoil and facilitate drainage. The next thing to do is to draw a line across the end of the bed next to the trench (18 inches wide) and then begin to dig it up and turn it over into the open trench. By the time this is finished the first open trench will be full again and the second one open of the same size and depth as the first one, and the work must so proceed in the same way until the trenching is completed. In turning the soil over from one trench to another, the worst or poorest of the bottom soil should be turned out and wheeled away, the deficiency being made good by adding a barrow-load and a-quarter of good rotten farmyard manure to the bed for every barrow-load of bad soil taken away. Generally speaking, the surface soil of most gardens is the best. This, or most of it, should again be reserved for the surface layer of soil while trenching is proceeding, as the Strawberry is mostly a surface-rooting plant. Supposing the bed is 5 feet wide, one should in any case add half a barrow-load of rotten farmyard manure to every trench made, mixing it well with the soil; and, if one can spare a little more, all the better. Add also a sprinkling of lime and bone-dust to the soil of each trench as trenching goes on, a gallon of lime and a quart of bone-meal (that is, for a trench 5 feet wide). As soon as the trenching is finished the ground should be gently trodden down while the soil is dry, or it will sink a good deal afterwards. Fork and rake the surface lightly over afterwards. OWEN THOMAS, V.M.H.

(To be continued.)

APPLES ATTACKED BY GRUBS.

A CORRESPONDENT writes: "In November the Apple trees were carefully grease-banded and kept moist. Twice during the winter the trees were thoroughly sprayed. The fruit set well, but within the last few days fully 90 per cent. of the fruit has developed the grubs of the Codlin moth and winter moth. In many there are two, and to such an extent that the excreta has disfigured the foliage. Where can you suggest was the door left open? . . . The matter appears to me absolutely incomprehensible, and this after a life-time at the work. The trees stand in rectangular blocks with open centre, uncultivated. From such an episode one's faith is shaken in banding and spraying; indeed, in every deterrent."

We fear our correspondent's experience that grease-banding and winter spraying are insufficient to keep trees clean from caterpillar in all cases is not an isolated one. He asks: Where was the door left open? We may dismiss the question of winter spraying first. He does not say what he sprayed with, but there is no substance that can be applied with safety to the trees during the winter that has the slightest effect upon the eggs of moths. Winter spraying with a caustic wash is an excellent method of cleansing trees of moss and lichen, and has, if done at the right time, some effect on mussel scale and the eggs of aphis, but it will not kill eggs of winter moth. Spraying with a copper sulphate solution is good against certain fungus attacks, and may be combined with the caustic wash.

Now, with regard to the winter moth. The females crawl up the trunk of the tree from the ground to lay their eggs from the beginning of October until January. If this pest is prevalent, the grease-banding should be commenced at the beginning of October, and the bands should be kept sticky until March, for there are other moths of similar habit which are about later in the winter, and which should be caught.

We greatly doubt, however, whether the caterpillars which have now attacked the trees are those of the winter moth. There are a large number of caterpillars of moths, *e.g.*, species of Tortrix, &c., the perfect insects of which are about in the early summer, that no grease-banding could possibly touch. There are others with winged females that lay their eggs in the autumn, the larvæ of which are often troublesome in the spring. It is more likely to be the caterpillars of the Tortrix moths than others if they have only just appeared. The winter moth caterpillars go down to earth to turn into chrysalides in the middle of June.

Assuming our correspondent is correct in thinking the Codlin moth is the cause of the dropping of the fruit, we have here still another pest that grease-banding or winter spraying cannot touch. The Codlin moth appears on the wing in May, and lays its eggs on the young fruits, and possibly on the leaves as well, in that month. The eggs hatch and the larvæ feed just inside the cup of the calyx for a time, and then is the time to get at them. The fallen fruits should be collected and destroyed, or pigs may be allowed to pick them up and eat them, so as to prevent the larva from finding a hiding-place where it may become a chrysalis. In any case cleanliness is a great aid in checking this pest.

Now, as to spraying against caterpillars. There is no doubt that lead arsenate is the best spray to use, and it should be purchased in the paste form. Next to that we should put Paris green. The time to spray for Codlin moth is within twenty days of the fall of the petals; for other caterpillars as soon as the first sign of the attack is noticeable. A very careful look-out must be kept if any good is to be done. Lastly, the application must be thorough. PRACTICAL SCIENTIST.

VINES AND PEACHES IN THE SAME HOUSE.

WHEN early Grapes and Peaches are ripening at the same time, the ventilation of the structure is very easily managed, as both kinds of fruits require more air, both night and day, than at other seasons, except, of course, when the wood is maturing in the autumn and during the winter season. Much care must, however, be taken in admitting air at all times while the trees are bearing fruit. While the leaves of the Peaches may withstand rather cold draughts, those of the Vines would quickly become mildewed. Amateur cultivators, however, need not be anxious, as, unless they leave the ventilators open rather wide during spells of dull, cold weather, there will be no danger of the leaves becoming mildewed. Of course, I am now referring to the lower or front ventilators; it will not be wise to close the top ones entirely even in rather bad weather. There must be a free circulation of air in the house, else moisture will lodge on the berries of the Grapes and cause them to decay. I daresay many readers have noticed, in some seasons, bunches of Grapes with a cluster of berries in most of them rotting away. Very often this loss is caused by a single berry going bad in the first instance, and a very small amount of condensed moisture is the real origin of the mischief. Therefore, cultivators must ventilate freely in fine weather and cautiously in bad.

Vines and Peach trees which continue to produce young shoots while they are bearing fruit are in a healthy condition and not being overcropped. All such shoots, however, must be removed while they are quite small. If left on to grow a foot or



THE NEW EARLY-FLOWERING GLADIOLUS QUEEN MARY. (*See page* 329.)

more in length before they are cut out, they not only rob the fruits of much nourishment, but prevent the air and sunshine reaching the main branches and leaves. It is very important that the latter have full exposure, so that the fruit-buds for next year will be well fed and get quite plump and mature properly. After the fruits of Peaches are gathered, cease to feed the trees with manure-water; give clear water only, but the Vines may still be fed with beneficial results. AVON.

TREES AND SHRUBS.

A LONG RHODODENDRON SEASON.

THE season for these flowers extends from January to July, and I will briefly state the earlier species and varieties and give my impression of a selection of the best varieties of what are known as garden hybrids. Very often small plants of R. nobleanum can be seen at Christmas, but generally February and March are the months when this scarlet tree (it grows very large) makes a brave show. R. barbatum is the next to flower. This is a magnificent species, with compact trusses of brilliant red flowers which open in February and last several weeks in good condition.

R. præcox was in flower this year with us on February 2. It is very free, and a batch of it is most effective. It has lilac purple flowers. Planted about in shrubberies it is exceedingly attractive. R. arboreum of various types follow in quick succession; in fact, this type and its varieties last for fully two months. In colour the flowers range from blood red to white. The plants are easily grown, but sheltered positions should be found for the earliest varieties. In these gardens there is an R. arboreum nearly a hundred years old and 14 inches through one of its stems or trunks.

R. Thomsonii is without doubt one of the greatest favourites. It has a bell-shaped, beautiful crimson flower of great substance, and foliage of a glaucous hue. No collection can be considered complete without this species. R. Aucklandii (Griffithii) next produces in numerous varieties beautiful types of very rich and large flowers. Gill's Triumph, Glory of Penjerrick and Luscombe's hybrids are all of this type, the species being the seed parent in most cases. R. campylocarpum is a beautiful free-flowering yellow species, one of the most attractive of all when in flower, and is, moreover, perfectly hardy.

I had almost forgotten the beautiful R. ciliatum, a lovely dwarf plant which makes a very shapely and elegant bush; it is particularly good as an edging in a small stage, or as dot plants in the alpine garden. The flowers are pale blush, gradually changing to white. It is a very telling and interesting plant. This season it was in bloom with us on April 4, when we had a party of enthusiastic horticulturists from Croydon, who came in spite of the snow blizzard. At that time the flowers, with Camellias, were holding up their heads through the snow. I mention this to show their hardiness. Of course, these flowers were killed, but the buds were not, and in a few days were open.

R. Fortunei is well known as a very sweet-scented, large and lovely flower. Some wonderful hybrids have been secured from this. These are among the most beautiful and easiest to grow, and are for the most part free-flowering. I have not touched on the more rare species and varieties, as my space will not admit of so doing, though some of the large-leaved forms, R. Falconeri to wit, are lovely plants, even for foliage alone, and are well worth extended cultivation.



THE NEW WAVED SWEET PEA LADY KNOX. (*See page* 329.)

GARDEN HYBRIDS.

Among some of the most showy and beautiful varieties which were flowering with us in June last, and which, with a judicious selection, last six weeks, were Kate Waterer, a free-flowering variety with a fine truss of rose flowers with yellow centre; Lady C. Walsh, white, with yellow, fine truss and good habit; Gomer Waterer, a fine and exquisite truss, white, shaded rose pink; Doncaster, one of the finest scarlets, especially when planted among good whites, such as Mrs. George Hardy or album elegans. There is, however, now a brighter scarlet than Doncaster, viz., G. A. Sims. It is a splendid variety, and should be secured by everybody in the coming season. Mrs. John Clutton is one of the best whites, of good habit and free-flowering. Michael Waterer is a fine old variety of much merit, the flowers a beautiful crimson. Mrs. Thomas Agnew, white, with lemon blotch, and Mrs. W. Agnew, pale rose pink, with yellow centre, are both very pretty. Miss H. Ingersoll, deep rose, with a greenish centre, is quite distinct and good. Fastuosum fl.-pl., rosy lilac or mauve, is a great favourite with some ladies, who much appreciate its colour. It is a good grower, makes a shapely bush and is very free flowering. Helen Waterer is a fine variety, with white centre edged with crimson. Concessum, clear fine pink, with a lighter centre, is a fine old variety. Pink Pearl is one of the best, most distinct and beautiful, and one of the easiest to grow. Layered or grafted it is a fine and brilliant garden plant, and one that lends itself to lifting for forcing readily. Marchioness of Lansdowne, large truss, rose, spotted yellow; Sappho, a very distinct variety, white, with large maroon spots; Sigismund Rucker, a fine magenta truss and very richly spotted; The Queen, blush, changing with age to white; Titian, fine rosy scarlet; Purity, white, very free and beautiful, and a good, shapely grower; and William Austin, a very early variety, with fine trusses of crimson spotted flowers, are only a few out of many, but are among the cream of all the varieties.

Among the Rhodo-Azaleas none is more beautiful and free than Anthony Koster, Mme. Van Houtte, Meteor, Alphonse Lavallee, I. van Thol, R. A. Marconi, occidentalis, graciosa, Unique, Vaseyi, Hugo Koster, James Baumann, General Vettei, Charles Baumann, Brilliant, Dr. Pasteur, Dr. Ruchenback, E. Liebig, Bronze Unique, amœna Caldwellii, a. carminata, a. coccinea, a. hexa, a. narcissiflora, a. splendens, a. arborescens, and last, but not least, the wonderful Ne Plus Ultra, one of the very brightest and, above all, one of the most free and useful. All these plants should be watered freely during very dry weather, and as soon as the flowering is finished all the seed-pods should be gathered, except those wanted for seed. This may seem a tedious operation, but it is one that more than pays for doing, a fact that nurserymen who make a speciality of these plants are fully aware of. Rhododendrons should be planted thicker than is usual, to shade each other's roots. When this is done, the plants grow away much more rapidly, and when they become too large can easily be moved to fresh quarters or for making fresh plantations. Owing to their fibrous roots they move very well indeed, and seldom experience any severe check to their growth.

Leonardslee Gardens, Horsham. W. A. COOK.

THE FLOWER GARDEN.

A USEFUL SAXIFRAGE FOR THE ROCK GARDEN.

(SAXIFRAGA WALLACEI.)

THIS is unquestionably one of the most beautiful Saxifrages in cultivation, and it should find a home in every rock garden. It possesses the good qualities of being easily grown and readily increased. When planted in the rock garden and allowed to ramble at will, it soon clothes the surrounding soil and rockwork with a mantle of its pretty green foliage, which is followed early in the season by a perfect carpet of clear white flowers. Its wonderfully free-flowering habit is clearly portrayed in the illustration. A half-shady place and a well-drained soil are ideal conditions, and, like other members of the family, it responds to the good effects of the morning sun.

CARNATIONS, PICOTEES AND PINKS.

[*In Answer to a Correspondent.*]

CARNATIONS are, in the first place, divided into several sections that differ from each other both in habit and flower, and particularly in their cultural requirements. The chief classes are the Tree or Perpetual-flowering, the Malmaison, the Marguerite and the border Carnation.

Tree or Perpetual-flowering Carnations are those which are so popular at the present day. Their main characteristics are free growth, long, firm flower-spikes that render them so valuable for cutting purposes, and the fact that flowers may be had more or less throughout the year. When attention was first directed to their merits, their winter-flowering qualities were regarded as the most valuable asset, but the blooms are now appreciated at all seasons, both for the decoration of the conservatory and in a cut state. Furthermore, experiments carried out within the last few years have proved the adaptability of many of them for bedding purposes during the summer. These Carnations are propagated by cuttings of the young shoots taken in January and February and inserted into sandy soil in a temperature of 50° to 60°, with a bottom-order to lay the foundation of bushy heat a few degrees higher. As soon as the cuttings are rooted they should be potted into small pots, that is, pots 2½ inches in diameter. A suitable compost is two parts loam, one part leaf-mould, and half a part each of silver sand and old mortar rubble, broken fine. If kept in a light position in the greenhouse, the plants will grow quickly, when it will be necessary to stop them in specimens. Before stopping, the plant must be of such a length that when stopped there are still six joints remaining. It will not be sufficient to pull out the extreme tip of the shoot, as that often leads to the production of only one break. In May or early in June the plants will be ready to be put into their flowering pots of 5 inches to 7 inches in diameter. The compost must, of course, be of a rougher nature than that indicated for the smaller plants, but the proportions may be the same, with the addition of a little soot and bone-meal. The potting should be firmly done. After potting the plants must be kept in the greenhouse for a time; in fact, some cultivators prefer to grow them altogether under glass, giving them plenty of air during the summer. They may, however, be stood outdoors · but it is very essential that they be taken under cover before the heavy autumnal rains set in. During the winter the plants should be kept in a good light position in a structure where a buoyant atmosphere of 50° to 60° is maintained.

Malmaison Carnations.—These are essentially greenhouse plants, for it is very necessary that they be grown under glass all the year round. The distinguishing features of the Malmaison Carnation are its short, sturdy growth, broad leafage and enormous, highly fragrant blossoms. They are propagated by layers from plants plunged in sandy soil in a cold frame as soon as the flowering season is past. When rooted the layers must be lifted, potted and placed in the greenhouse. The strongest can be put into their flowering pots, 6 inches in diameter, in the autumn, and the others left till February. These require during the winter a light, dry atmosphere where a temperature of 45° to 55° is kept up. This class of Carnation is the most particular in its cultural requirements.

Marguerite Carnation.—This type of Carnation is very useful for the decoration of the greenhouse in autumn and winter. The flowers have not the refinement of the Perpetual-flowering varieties, but they are freely borne and in many cases brightly coloured. They are raised from seed, which should be sown in early spring in a gentle heat and the young plants potted on as required. It is very necessary that the seeds be obtained from some reliable source. Some cultivators prefer to plant them out in the summer in a well-dug border, lifting and potting them in early autumn for greenhouse decoration; while by others they are grown altogether in pots.

Border Carnations are those that flower out doors during the summer. At present the popular taste lies in self-coloured flowers, but in some plants the flowers are striped, flaked and otherwise marked. This class was more popular in bygone days than it is now. Border Carnations are increased by layering, which is done as soon as the flowering season is past and the young shoots, or grass as they are termed, are in a suitable condition. A little sandy soil is placed immediately around the cut portion of each layer. In wet, heavy soil these layers are potted as soon as they are sufficiently rooted and kept in a cold frame during the winter, giving them as much air at that time as possible. In warmer situations they are permanently planted out in the autumn, but when wintered in pots they should be planted out as soon as the conditions of the weather and soil are favourable. Many of the flowers of the border Carnations shown at the summer shows are brought on under glass.

Picotees are nearly related to the border Carnations, the principal difference being in the arrangement of the colour of the flower. In the Picotee the ground colour is white or yellow, with a clearly-defined margin, varying in depth, of deep pink, purple or red. As a rule, the Picotees are more particular in their requirements than most of the border Carnations, more especially those with a yellow ground.

Single Flowers.—When Carnations are raised from seed, one may reasonably expect a certain proportion of single flowers, and some members of the family, especially the Indian Pink (Dianthus chinensis) and its varieties, are nearly all single flowers.

Pinks.—These are altogether more tufted growing than the others, are less particular in their requirements, and are quite hardy. Pinks are readily increased by means of cuttings, or pipings as they are termed, taken in July and dibbled in some sandy soil in a shady spot outdoors, or they may be layered like Carnations, while old plants can, as a rule, be readily increased by division.

H. P.



A SHOWY PLANT FOR THE ROCK GARDEN (SAXIFRAGA WALLACEI).

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

SPRING CABBAGES.—If all the soils in the whole of the country were alike, the climate in each district identical, and the weather did not vary from year to year, we should be deadly dull for want of something handy about which to grumble, but we should know on precisely what day the seeds to produce spring Cabbages ought to be sown. As things are at present, experience teaches the observant grower the best approximate date, and he adheres as closely to it as the weather and circumstances will allow. Somewhere within the next ten days will suit most places, and in order to be on the safe side it is excellent practice to make a second sowing three weeks later; this means a double outlay for seeds or a division into two portions of the usual quantity, and as we all sow quite three times as thickly as we ought to do, the division should be done, for it will save the cost of seed and give the plants a better chance from the start. Grow them sturdily and strongly, and the weather alone can then upset calculations, and if it does so to the extent of encouraging sappy, "proud" plants, the second sowing will yield thriftier ones which will stand perfectly well. Taking one season with another and on all kinds of soil, there is no variety superior to Sutton's Flower of Spring.

WATERING AND MULCHING PEAS.—If the plants are to continue fruitful, no efforts must be spared to keep them in excellent condition. To this end be generous in the use of the water-pot, and do not forget the immense benefits derivable from surface mulchings of manure down each side of the lines. The picking should be on the severe side, and when the days are hot and sunny do not fail to hose or syringe the plants vigorously in the evening, as it will prove wonderfully invigorating and will encourage further progress. Loosen the surface lightly, water heavily, wait a few hours and loosen again, and then spread down the mulching material, and the reward will be generous.

ASPARAGUS-BEDS.—Cutting has ceased for the season, and efforts must now be directed towards persuading the plants to make splendid growth and to pass the nutrient properties contained in it down into the stools for the benefit of succeeding crops. Not a weed must be tolerated, and the surface ought to be opened up with the utmost care, or injury to the crowns must result. Subsequently, if the weather is dry, give two or three heavy soakings of water, adding weak liquid manure if a shortage of food is suspected. Put stout stakes at distances of 6 feet or 8 feet round the sides of the beds and stretch strong string between them to prevent the growths being broken in high winds, because each one that is lost spells food taken from the stools, and therefore prejudices the prospects for the next cutting.

WINTER GREENS.—The maintenance of good health through the winter depends largely upon the amount of green vegetables we consume, and it is, therefore, of the utmost importance that excellent quarters of Brussels Sprouts, Kales, Savoys and Broccoli shall be planted. In all of these instances, except the last-named, the soil must be deeply worked and generously manured; but Broccoli thrives most satisfactorily and stands the winter much better when it is grown on solid ground which was heavily manured for the preceding crop; for example, it follows autumn Onions admirably with no cultivation beyond clearing away weeds. As places fall vacant now they will be filled with these plants, and showery weather should always be chosen for the work if possible, but it is not good policy to wait so long that the young plants become drawn and weakened in the seed or nursery beds. It saves trouble and ensures a better start to puddle all the roots before planting.

EARLY POTATOES.—These are just coming out in the form of respectable crops of excellent quality. Earlier liftings have yielded too large a proportion of small tubers and slight inferiority in flavour. From now onwards digging and eating must proceed apace, because we want the ground for other crops in the first place, and because these early Potatoes are not good keepers in the second place. Apart from these points, there are successional varieties following closely, and they, too, will be ready for harvesting before very long.

H. J.



ARENARIA BALEARICA IN A SUBURBAN GARDEN.

THE TOWN GARDEN.

WINTER-FLOWERING ZONAL PELARGONIUMS.—It is during the period of the heyday of the beauty of the Zonal Pelargonium that the amateur is apt to overlook the importance of preparing for winter-time, and there is, of a surety, no plant of greater decorative value or importance than these Pelargoniums. In brilliant sunlight the more fastidious may say them nay. Not so, however, the ordinary flower-lover or the town worker, and he or she in particular whose hours and days and weeks are spent in badly-lighted offices or who wend their homeward way beneath murky clouds or leaden skies. These, indeed, are capable of appreciating a little of the floral brightness that may be, and, when the chill of a dull November day is past and gone, will not fail to appreciate such things at their fullest worth. Such brightness, however, is only possible when due preparation has been made; and although to suggest a start at this time will not err on the side of earliness, it will be much better than attempting no preparation at all.

THE THING TO DO at the moment is to secure young, vigorous plants. These may be either spring-rooted cuttings or somewhat older examples. Most important of all, perhaps, is it that the beginner secures varieties suited to winter-flowering, and by affording these special treatment causes them to flower and to give of their brightest and best during the dullest days of the year. In other words, this is the time of training and that period of it when superfluous growth must be held in check, when flowering must be subdued, and when the whole of the energies of the plant must be directed to making suitably firm wood for the ordeal of flowering later on. To achieve all this, a poor soil, firmly, even hardly, rammed into the pots, is an absolute necessity. These are the precursors of fibre and concentrated force, and the plant which is the embodiment of these is that most likely to give a great flowering when winter arrives. Good varieties are Mrs. George Cadbury, Queen of Italy, Prince of Orange, Raspail Improved, Jupiter and Kingswood.

COMMON ERRORS.—To employ rich soils—soils abounding in organic manures—to pot loosely, and so loosely that the finger may be readily thrust deeply into the soil of the plant, is to be guilty of some of the commonest errors in connection with the cultivation of these plants. Moderate waterings should be the order of the day. Liquid manures should not be thought of at this stage—their time or need is not yet, and their application would be but the equivalent of the "wild oat" sowing of youth—something done which cannot be undone, something which weakens vital force and opens the way to sickness or disease. Hard stems in such plants represent concentrated growth, and will flower well. By carrying out the suggestions made, such stems will result, and it will be seen that not the fattest stems, but those of less degree, are providing the finest flowers. To the foregoing cultural hints should be added a position for the plants in the open where all the sun can reach them.

A PRETTY TOWN PLANT.—Too frequently the town or suburban dweller knows but little of the wealth of beauty a garden may contain; hence I have pleasure in directing attention to a carpeter of the soil which for weeks on end is covered with snow white blossoms. The plant is not more than 1 inch high, and, in addition to covering bare soil with a carpet of green, will climb the sides of sandstone blocks and produce the prettiest effects possible. The plant is the Balearic Sandwort (Arenaria balearica), and being of the miniature type of growth, it is the more valuable in gardens of the *multum in parvo* class, which must of necessity exclude many of the bolder-growing subjects.

S. N. N.

GARDENING FOR BEGINNERS.

LAYERING ROSES.

ROSES may be propagated by seed, budding, grafting, cuttings, suckers, by eyes and buds, by division and by layering, so the beginner has the choice of many means of enriching his garden with a larger number of plants of varieties already in his possession. The question of providing one's self with stocks of a suitable kind does not arise when propagation by layers is observed, and this in itself is a matter of some importance to many who are beginners in Rose culture. It is well, however, to commence operations in good time, as by so doing it should be possible, with comparative ease, to establish big bushes in a short time. Quite early in the summer the growths intended for this method of culture should be selected, and the present period is most opportune for the necessary shoots to be chosen. It is my custom to select shoots of free growth and of fairly stout and healthy appearance. The selection of suitable growths need not be restricted to any one particular type of the Rose; so long as the shoots are of the kind indicated above, there need be no hesitancy in taking in hand Roses of all or any description. In the illustration (Fig 1), depicting the growth of a Rose that is suitable for layering, a shoot is shown of Dorothy Perkins, a variety much admired by those who desire to make their gardens beautiful in the summer months. Any well-established plant of this fine wichuraiana Rose, or, for that matter, any other Rose of the same class, will yield numerous shoots of this description and enable the beginner to increase his plants quite freely.



1.—A ROSE SHOOT PREPARED FOR LAYERING.

Having chosen a suitable shoot, the next thing is to know what to do with it. To ensure, as far as possible, ultimate success, the leaves should be trimmed off at a convenient part of the stem, so that the cutting of the latter may be done satisfactorily and the cut portion be successfully pegged down. The preparatory work in the layering of Roses is simple, though requiring some little care in observing the smaller details. For instance, at a suitable place, such as is shown in Fig. 1, the stem should be cut half through on the under side with a sharp knife, and the blade of the latter should then be continued up the centre of the shoot (longitudinally) for about 1 inch. This forms a tongue, where, when it becomes callused, roots very quickly form. At this point in the operations the greatest care should be taken that no damage shall ensue to the layer owing to strain, &c. The portion of the stem that has been treated in the way described should then be firmly pegged down into a mound of soil properly prepared for this purpose. In some gardens and nurseries, where those engaged are proficient in the work, a notch in the soil with a spade is made and the cut portion of the stem pegged down into this, subsequently covering this with some fine soil. I prefer to take a little trouble in the preparation of the soil. A shallow, basin-like cavity is made at a spot where the layering may be done, and into this is placed a few inches of sandy soil. The prepared layer is then bent down and pegged in position as shown in Fig. 2. It is safer to deal with suitable shoots in the following manner: After trimming off the leaves bend down the shoot; then proceed to make the necessary cuts as previously described, pegging down the layers forthwith. A galvanised wire or wooden peg, such as is figured in the first illustration, may be made quite easily and quickly, and either of these should be adjusted across the stem a little below where the cut is made. To maintain the layer in position, cover round about the cut and the stem with sandy soil. By the autumn, say, mid-October, assuming rooting has taken place, as a layer properly treated invariably does, the layer should be severed from the parent plant and be planted in its permanent quarters.

D. B. CRANE.

THINNING OUT HARDY FRUITS.

IT is very encouraging to see a fruit tree well laden with nice healthy specimens at this season. A good promise of a rich harvest seems to be assured. It is far from wise, however, on the part of the cultivator to allow all the fruits to remain to ripen in cases where the crop appears to be a very heavy one. Especially is it harmful in the case of young trees. It is like working a young horse too soon and too hard. A breakdown occurs, and then it means that a period of several years must elapse before the trees are again in a normal condition and capable of bearing a good average crop of fruit. Some varieties of Apples, Pears and Plums do not bear freely while the trees are young, and it is found necessary to severely root-prune them in order to bring them into a fruitful condition. There are others, however, such as Apple Lane's Prince Albert, Pear Emile d'Heyst and Plum Rivers' Early Prolific, that bear too freely while the trees are very young, and it is advisable to thin out the fruits. Large, established trees should also receive attention in the matter of the thinning out of the surplus fruits, in order to ease the burden of the trees and to improve the size and quality of each specimen retained.

Now the question as to which fruits should be retained must be answered. In all instances where the fruits are formed in clusters, the central one is generally the largest and best formed, and ripens first. This is the specimen to retain. If there are only a few of such clusters on a large, strong tree, it would be folly to remove them all except the central one, as several of the best-shaped ones may be retained in each cluster. One good fruit may be allowed to mature to every square foot of tree surface; a few more Pears may be allowed, except in the case of the large-fruited varieties such as Pitmaston Duchess. Six medium-sized Plums and three large-fruited ones may be left to mature in the same space. Undoubtedly, twice the number will mature if left, but they would be smaller, and would cripple the tree for future bearing.

All kinds of bush fruits are thinned out early as the first fruits ripen, and some, such as Gooseberries, are used in a green state. The judicious thinning of Apples, Pears and Plums is sure to give satisfaction, and when once practised will be done every year when the crops are favourable.

EARLY *VERSUS* LATE SHOOTS ON PEACH AND NECTARINE TREES.

THE fruits of 1912 are borne on shoots made during the present year, but if the shoots are not well matured they will not be capable of bearing fruits. The buds that form will be chiefly wood-buds, that is, buds which will eventually develop into young shoots, and not flowers and finally fruits. Many flower-buds also fall off prematurely if the wood is not sufficiently ripened when the sap rises in the spring. Now, to be quite sure that the young branches are well ripened, they must have been exposed to much sunshine and air. It is, of course, only during the summer months that these conditions can obtain, so the cultivator must be very careful not to tie in too many young branches so as to cause overcrowding and thus shut out both the sun's rays and the air. At this season of the year the young shoots grow rapidly, and the cultivator must not be tempted to tie in all that grow. The earlier shoots must be considered first. Keep them tied in and cut off, or pinch off, all the later-formed shoots while quite small. The first of the young branches are valuable; the last ones are not.

SHAMROCK.



2.—AFTER LAYERING.

THE PARENTAGE OF ROSES.

(*Continued from page 326.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Mme. Joseph Desbois	H.T.	Guillot et f.	1886	Baroness Rothschild × Mme. Falcot
,, ,, Gouleau	H.T.	Gouleau	1909	Sport La France de '89
,, J. P. Soupert	H.T.	Soupert	1900	Caroline Testout × Alice Furon
,, Jules Gravereaux	D.T.	Soupert	1900	Rêve d'Or × Viscountess Folkestone
,, ,, Grevy	H.T.	Schwartz	1881	Triomphe de l'Exposition × Mme. Falcot
,, J. W. Budde	H.T.	Soupert	1907	Seedling × seedling
,, Laborie	H.Rug.	Gravereaux	1905	General Jacqueminot × Empereur du Maroc × Conrad F. Meyer
,, Lambard	Tea	Lacharme	1877	Seedling Mme. de Tartas
,, Leglise	Ch.	Ketten	1903	Petit Constant × Frau Syndica Roeloffs
,, Leon Pain	H.T.	Guillot	1904	Caroline Testout × Souv. de C. Guillot
,, ,, Simon	H.T.	Lambert	1909	Marie van Houtte × Caroline Testout
,, Louis Puyravaud	Tea	Puyravaud	1906	Seedling Souv. de Marie Dutrey
,, Louise Leroy	Tea	Leroy	1908	Sport Mme. Wagram
,, Lucien Linden	D.T.	Soupert	1897	Rêve d'Or × Luciole
,, ,, Villeminot	H.Rug.	Gravereaux	1904	Conrad F. Meyer × Safrano
,, Massicault	H.P.	Schwartz	1884	Seedling Baroness Rothschild
,, Maurice de Luze	H.T.	P. Ducher	1904	Mme. Abel Chatenay × Eugène Fürst
,, ,, Donnay	Tea	Nabonnand	1906	P. Nabonnand × Christine de Noue
,, Montet	H.P.	Liabaud	1881	Seedling La Reine
,, Moreau	Tea	M. Robert	1889	Mme. Falcot × Mme. Berard
,, Noman	H.P.	Guillot p.	1867	Seedling Mlle. Bonnaire
,, Norbert Levavasseur	P.P.	Levavasseur	1902	Crimson Rambler × Gloire des Polyanthas
,, Oswald de Kerchove	H.T.	Schwartz	1879	Mme. Recamier × Mme. Falcot
,, Pierre Euler	H.T.	Guillot	1907	Antoine Rivoire × Killarney
,, ,, Oger	B.	Oger	1878	Sport Reine Victoria
,, Pol Varin-Bernier	Tea	Soupert	1906	Mme. C. P. Strassheim × Mme. Dr. Jutté
,, Portier Durel	H.W.	Durel	1909	Chance seedling R. wichuraiana
,, Preslier	Tea	Preslier	1903	Mme. Falcot × Souv. de Victor Hugo
,, Prospier-Langier	H.P.	E. Verdier	1875	Seedling John Hopper
,, Rival	H.P.	Gonod	1866	Seedling Augusta Mic
,, Rolland	H.P.	M. Robert	1867	Seedling Baronne Prevost
,, Roudillon	B.	Vigneron	1903	Seedling Mme. Isaac Pereire
,, Ruau	Pern.	Gravereaux	1900	Pharisaer × Les Rosati
,, Sadi Carnot	Tea	Renaud G.	1889	Mme. Berard × Souv. de la Malmaison
,, Scipio Cochet	Tea	Bernaix	1887	Anna Olivier × Comtesse de Labarthe
,, Segond Weber	H.T.	Soupert	1907	Antoine Rivoire × Souv. de Victor Hugo
,, S. Mottet	N.	Cochet C.	1899	Sport William Allen Richardson
,, Steffin	H.T.	Buatois	1900	Irene Watts × Mavourneen
,, Tiret	H.Rug.	Gravereaux	1906	Pierre Notting × Cardinal Patrizzi × Germanica
,, Valembourg	H.P.	Oger	1863	Seedling General Jacqueminot
,, Valere Beaumez	H.T.	A. Schwartz	1908	Antoine Rivoire × Paul Lede
,, Victor Verdier	H.P.	E. Verdier	1863	Seedling Senateur Vaisse
,, Viger	H.T.	Jupeau	1900	Heinrich Schultheis × G. Nabonnand
,, Welche	Tea	V. Ducher	1878	Devoniensis × Souv. d'un Ami
Madeleine Fillot	H.Rug.	Gravereaux	1907	Reine des Iles-Bourbon × Perle des Jardins × Germanica
Mlle. d'Apvril	H.T.	A. Schwartz	1906	Kaiserin Augusta Victoria × Marquise de Vivens
,, de la Vallette	Ch.	A Schwartz	1909	Mme. Eugène Resal × Aurore
,, ,, Meux	H.T.	Berland	1901	Seedling Caroline Testout
,, Eugénie Verdier	H.P.	Guillot f.	1869	Victor Verdier race
,, Onofrio	Tea	Ketten	1899	Safrano × Adam
Madonna	H.T.	Cook	1908	Seedling White Lady
Magna Charta	H.P.	W. Paul	1876	Jules Margottin race
Magnifica	H.Rug.	D. and Conard	1909	R. rugosa × Victor Hugo
Maid of Honour	Tea	Hoffmeister	1899	Sport Catherine Mermet
Mai Fleuri	Tea	Tesnier	1892	Jaune de Fortune × The Maréchal
Malva Rambler	M.S.	Puyravaud	1908	Seedling Crimson Rambler
Mama Gaertner	H.T.	J. C. Schmidt	1908	Mme. Hoste × Caroline Testout
,, Looymans	H.T.	Leenders	1909	Grüss an Teplitz × Hortensia
Maman Levavasseur	P.P.	Levavasseur	1907	Seedling Mme. N. Levavasseur
Marcel Bourgeois	P.M.	Corbœuf	1898	Blanche Moreau × Abel Carrière
,, Grammont	H.P.	Vigneron	1868	Seedling Comte Montalivet
Maico	H.W.	Guillot	1904	R. wichuraiana × Souv. de Catherine Guillot
Maréchal Niel	N.	Pradel	1864	Solfaterre × Isabelle Gray
Marguerite de Sorras	D.T.	Nabonnand	1890	Seedling Gloire de Dijon
,, Desroyeaux	H.T.	Nabonnand	1906	Mme. Alfred Carrière × Marie Lavalley
,, Fischer	H.T.	Ketten	1905	Safrano × Caroline Testout
,, Gigandet	Tea	Nabonnand	1902	Francisca Kruger × Reine Emma des Pays-Bas
,, Guillot	H.T.	Guillot	1902	Seedling Caroline Testout
,, Juron	H.T.	Dubreuil	1895	Seedling Victor Verdier
,, Ketten	Tea	Ketten	1897	Mme. Caro × Georges Farber
,, Poiret	H.T.	Soupert	1901	Mme. Lambard × Caroline Testout
Maria Capelet	H.T.	A. Schwartz	1905	Kaiserin Augusta Victoria × Luciole
,, Duckhardt	Tea	Ketten	1897	Mme. Bravy × Adams
,, Kessells	H.P.	Verschuren	1905	Seedling Baroness Rothschild
Marianne Pfitzer	H.T.	Jacobs	1902	Seedling Kaiserin Augusta Victoria
,, Rascal	Tea	Schwartz	1907	Reine Emma des Pays-Bas × Mme. P. Guillot
Marichu Zayas	H.T.	Soupert	1906	Seedling × Mrs. W. J. Grant
Marie Berton	D.T.	Levet	1875	Seedling Gloire de Dijon
,, Bülow	Tea	Welter	1903	Maréchal Niel × Luciole
,, Cirodde	H.P.	C. Verdier	1867	Seedling Triomphe de l'Exposition
,, Corelli	H.P.	Prince	1901	Sport Suzanne M. Rodocanachi
,, Croibier	H.T.	Croibier	1901	Seedling Caroline Testout
,, Delesalle	H.T.	Soupert	1909	Etoile de France × Richmond
,, Digat	H.P.	Levet	1882	Seedling Marie Baumann
,, Estelle	Tea	Nabonnand	1906	Sylphide × Comtesse de Leusse
,, Finger	H.P.	Rambaux	1873	Seedling Victor Verdier
,, Graebneri	H.Sps.	Ascherson	—	R. carolina × R. humilis
,, Henry	H.T.	Buatois	1900	Irene Watts × Beauté Lyonnaise
,, Herzogin von Anhalt	H.T.	Jacobs	1908	Mme. Abel Chatenay × Kaiserin Augusta Victoria
,, Isakoff	H.T.	Dubreuil	1901	Seedling Caroline Testout
,, Lagrange	H.P.	Liabaud	1882	Seedling Senateur Vaisse
,, Leonida	H.Sps.	Lemoine	1829	R. bracteata × R. moschata × R. indica
,, Louise Marcenot	H.T.	Buatois	1900	Victor Verdier × Dr. Grill
,, ,, Margerand	H.P.	Liabaud	1876	Seedling Mme. Laffay
,, ,, Poiret	H.T.	Soupert	1899	Caroline Testout × Marquise Litta
,, Perrachon	H.P.	Ducher	1864	Seedling Geant des Batailles
,, Roussin	D.T.	Nabonnand	1888	Seedling Gloire de Dijon
,, Segond	Tea	Nabonnand	1902	Comtesse de Leusse × Lazarine Poizeau
,, Trenz	M.S.	Welter	1909	Trier × Mme. N. Levavasseur
,, van Houtte	Tea	Ducher	1871	Mme. de Tartas × Mme. Falcot
Mark Twain	H.T.	Hill	1902	Seedling Mrs. W. J. Grant
Marquise Clementine Paveri	H.T.	Ketten	1906	Marie Louise Poiret × Mme. Ravary

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Bedding plant (*H. R.*).—If the plant to which you refer is single-flowered and white, flowering at the same time as the Tulips, it is probably Arabis albida; but if double-flowered like a miniature Stock, A. albida fl.-pl. The former is easily increased from seeds, cuttings or divisions, and you may get plants or seeds and start at once. The double-flowered variety you must raise from cuttings. Get a couple of dozen plants at once, cut off the tops 3 inches in length and insert in sandy soil in a shady spot as cuttings, and repeat the operation till you have enough for your purpose. The plant grows and increases like a weed.

Flowering plants for bank (*Grass Bank*).—There are many evergreen perennials that would succeed on the bank when the grass is removed, and the best of them in the circumstances would be Aubrietias, Phloxes of the subulata group and the perennial Candytuft. Any of these would assist in the keeping up of the bank, though not to the same extent as the grass. If the bank is of any considerable extent, we should feel inclined to plant it entirely with Aubrietias, as there is nothing capable of so much or such good cover, both of leaf and flower. Of bulbous plants, Narcissus Queen of Spain, N. minor, and N. pallidus præcox would be useful; and Muscari Heavenly Blue and Anemone fulgens would also give pictures of colour if freely planted. If you wish for a variety of colours on the bank, then plant Aubrietia Prichard's A1, Dianthus deltoidea, Phlox Nelsonii (white) and Iberis sempervirens (white) after the bulbous plants are put in.

Pyrethrums (*Mrs. E. King*).—The state of the Pyrethrums is due to injury, probably by frost or cold winds in an early stage. There is no sign of fungus on the pieces sent.

Injury to Sweet Peas (*W. H.*).—The cause of the trouble from which the Sweet Peas are suffering is to be sought lower down than the leaf. It is probably at the root. Try watering with a weak solution of sulphate of potash or with phosphate of lime.

Delphinium (*J. P.*).—The plant appears to have suffered a check, but the causes leading up to it we cannot determine. You do not say how long the plants have been in the position, or if only recently planted. Save for the loss of flower-buds, the spike appears to be normal, though of small size.

Flowers of hardy Azaleas changing colour (*L. B. C.*).—Perhaps your Azaleas were in flower when you bought them, and had been forced into bloom in more or less heat. Grown in this way the Azalea flowers always assume a lighter shade of colour. Change of soil will also sometimes influence colour in plants. But, speaking generally, the Azalea is constant in colouring, and if we bought a straw-coloured variety and it turned out to be a red one, we should look to the person who sold us the plant to make good the defect.

Arundinaria Hindsii flowering (*J. F. P.*).—We are much obliged for the small flowering examples of the above, originally distributed as Bambusa erecta by French nursery gardeners. The flowering of these plants is always of interest to our readers, as well as to ourselves,

by reason of its comparative rarity. The flowering of the whole of your plants in one season is probably due to their being of like age.

THE GREENHOUSE.

Aspidistra leaves going wrong (*F. H. Roberts*).—The cause of the Aspidistra leaves going wrong is a local one, as there is no disease present, and, judging by the leaf, the roots are in a good condition. On the specimen sent the spots are exactly the same as would be caused by the sun shining directly on the leaves when they were wet. Even without the moisture the leaves might be burnt by full exposure to the sun's rays. Some kinds of ornamental glass serve to concentrate the rays of the sun and act like a burning-glass, in which case a very short exposure would do the injury. You must form your own conclusion whether any of our suggestions apply in your case. The trouble sometimes comes from an unexpected quarter, in proof of which we may mention a case that was for some time a puzzle. The plant which stood in the centre of a table developed burnt-like spots without any apparent cause. The position of the plant with regard to the sun was duly noted, without any results, and we stumbled upon the cause quite accidentally. The table on which the plant stood contained other items, in search of which a lighted candle was taken occasionally into the room and stood on the table under the Aspidistra leaves. At no time was it there long, but quite long enough to do the mischief, without attention being called to the damage, which in most cases took some little time to develop. Anyhow, with this discovery and the precaution taken, the trouble ended.

Heath plant for inspection (*W. J. Whale*).—We have carefully examined the Heath and have failed to find any trace of insect or fungus pests. Your treatment appears correct if the water is free from lime, but we thought the potting was scarcely hard enough. When plants like these are potted loosely they are apt to suffer from the want of water, and, as you know, this is fatal.

Carnations diseased (*E. J. Hodkinson*).—The Carnations are badly attacked by red spider. Fumigate the plants thoroughly twice or three times at intervals of three days with XL or Abol fumigant, or spray them with paraffin emulsion. Every effort should be made to keep this pest in check, as it quickly ruins Carnations if allowed to gain the upper hand. Too high a temperature increases the difficulty of dealing with it.

Pelargoniums for name and information (*F.W. H.*).—The name of the Pelargonium of which you send flowers is Double New Life, an old variety, but one seldom met with now. It originated in this way. The old scarlet-flowered bedding variety, Vesuvius, is naturally of a sportive character, and quite distinct varieties, such as the white and salmon kinds, have been obtained from it. In the seventies it produced a very distinct sport, in which the scarlet petals were striped more or less with white. This was named New Life and shown by Messrs. Cannell of Swanley in the autumn of 1877, and was given a first-class certificate by the Royal Horticultural Society. In those days this honour was more plentifully bestowed than it is now. Still maintaining the variable character of the original, the variety New Life sported into a double-flowered form, which, under the name of Double New Life, was distributed by Messrs. Cannell somewhere in the early eighties. For a time it was popular, but we cannot now find it in any catalogue to hand. The prevailing taste is for self-coloured flowers rather than for those whose colouring is made up of stripes and flakes, and this may, to a great extent, account for its decline. Furthermore, the flowers are too small for present-day ideas.

MISCELLANEOUS.

Names of plants.—*Fair City.*—Ononis fruticosa.——*A. B Purchas.*—Calamintha grandiflora.——*J. W. S.*—1, Lilium testaceum; 2, Hemerocallis flava (cross); 3, Iris Xiphium (Spanish Iris); 4, Ixia speciosa (crateroides); 5, I. flexuosa; 6, Deutzia scabra flore pleno.——*Little Holland.*—Melia Azedarach (Persian Lilac).——*A. P. S.*—1, Campanula rotundifolia seedling; 2, C. r. alba; 3, C. G. F. Wilson; 4, C. latifolia; 5, C. Stansfieldii; 6, C. latiloba. *R. N., North Devon.*—Hæmanthus coccineus.——*G. M.*—Escallonia rubra.——*R. Hughes.*—Flowers had fallen. Could you please send younger blossoms with foliage?——*T. W. C.*—1, Helxine Solierolii; 2, Spiræa canescens.——*Asche MacStavanger.*—2, Polemonium cæruleum album; 4, Saxifraga trifurcata; 5, Aspidium angulare; 7, Rosa lutea flore pleno; 9, Artemisia species; 11, Lonicera species; 12, Plantago maxima; 13, Asperula species; 14, Spiræa Ulmaria; 15, Geranium pratense. The rest were too withered and scrappy to identify.

NATIONAL ROSE SHOW.

THE annual metropolitan exhibition held under the auspices of the above society at the Royal Botanic Gardens, Regent's Park, N.W., on Friday of last week was a great success. The arrangement in the large tent was excellent, and visitors could see the flowers in comparative comfort.

NURSERYMEN'S CLASSES.

Seventy-two blooms, distinct varieties: This proved to be a well-contested class, there being no less than six very keen competitors. The first prize, including the champion trophy and gold medal, was won by Mr. Hugh Dickson, Royal Nurseries, Belfast. His best blooms were Mrs. R. D. McClune, Mme. Melanie Soupert, Mrs. Stewart Clark and the lovely Tea Rose Medea. Second, Messrs. Alex. Dickson and Sons, Limited, Newtownards, with a good selection of blooms, of which Countess Annesley, Duchess of Westminster and La Galissière were the pick; third, Messrs. R. Harkness and Co., Hitchin, whose Lyon Rose was of a truly wonderful colour; fourth, Messrs. D. Prior and Son, Colchester.

Forty distinct varieties, three blooms of each: As in the previous class, a very keen competition was displayed. First, Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester. Among the best trio of blooms were Dean Hole, Hugh Dickson and Souv. de Elise Vardon. Second, Messrs. R. Harkness and Co., Hitchin, with a remarkably good lot. Possibly the best were Lyon Rose (of exceptional colour) and Mildred Grant. Third, Messrs. Alex. Dickson and Sons, Limited, Newtownards.

Forty-eight blooms, distinct: This proved to be one of the most interesting contests, and the judges had no easy task in making the awards. Mr. G. Prince, the able Rose-grower of Longworth, secured premier place and china challenge trophy with four dozen capital blooms. We were especially well impressed with the blooms of the following varieties: Souvenir de Pierre Notting, Earl of Warwick, Comtesse de Nadaillac and Hugh Dickson. Second, Mr. W. H. Frettingham, Beeston Nurseries, Notts; third, Messrs. G. and W. H. Burch, Peterborough; fourth, Messrs. J. Burrell and Co., Cambridge.

For twenty-four blooms, distinct, Mr. W. R. Chaplin, Waltham Cross, secured first place. His blooms of William Shean, Dean Hole and Earl of Warwick were, like others, shown in excellent form. Second, Mr. E. J. Hicks, Twyford, who showed White Killarney and Bessie Brown in the height of perfection; third, Mr. J. Mattock, Oxford.

Splendid competition was witnessed in the class for sixteen distinct varieties, three blooms of each, the first prize being won by Mr. Hugh Dickson, who showed Mrs. David M'Kee and William Shean in admirable form. The second place was gained by Messrs. G. and W. H. Burch; and the third went to Messrs. Perkins and Sons, Coventry.

The D'ombrain Challenge Cup for Tea and Noisette Roses was won by Mr. G. Prince. This able grower has secured this cup every year since it has been instituted. His blooms of Comtesse de Nadaillac, Mrs. Edward Mawley and Mme. Jean Dupuy were truly grand. Second, Mr. H. Drew, Longworth; a really good effort, showing similar varieties to Mr. Prince. Third, Messrs. B. R. Cant and Sons.

For twelve blooms of Tea or Noisette Roses, Messrs. Chapman and Collin, Leicester, gained first place with a very neat lot, but rather under-sized blooms; second, Messrs. John Jefferies and Son, Limited, Cirencester; third, Messrs. W. and J. Brown, Peterborough.

Mr. Prince gained the premier place for sixteen distinct Tea or Noisette Roses, three blooms of each; and Mr. Drew, also of Longworth, again proved himself an able competitor, securing the second place with a remarkably good lot.

A representative group of cut Roses arranged on the floor gained for Messrs. Paul and Son a first prize and gold medal. The group was beautifully arranged. In the background were numerous rambling Roses, such as Delight and Dorothy Perkins, while the foreground was taken up with vases and bowls of The Lyon Rose, Pharisaer, Mrs. W. J. Grant and many others. All of the blooms were remarkably fresh considering the hot atmosphere in which they were staged, and the exhibit well deserved the high award that was granted.

Messrs. Hobbies, Limited, had a fine group of weeping standard Roses arranged in a masterful way. The ground-work was occupied by vases of the leading Hybrid Perpetuals and Hybrid Teas in cultivation. This group was awarded second prize and a silver-gilt medal.

One of the leading features of the exhibition was the class for a group of cut Roses to occupy a space of about 100 square feet. The first prize and gold medal were awarded to Messrs. W. and J. Brown for a magnificent collection. The second prize and silver-gilt medal were gained by Mr. F. M. Bradley, Peterborough; and Mr. J. Mattock, Oxford, was third.

The first prize for eighteen blooms of any crimson Rose went to Mr. W. Bentley, Leicester, for that well-known Rose J. B. Clark; second, King's Acre Nurseries, Hereford, who showed Hugh Dickson; and third, Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, with George C. Waud.

A similar class for any white or yellow Rose was won by Messrs. S. McGredy and Son with The Lyon Rose, followed by Mr. Hugh Dickson with Mrs. David McKee, and Messrs. G. and W. H. Burch.

The Lyon Rose was also very much in evidence in the class for Roses other than white, yellow or crimson. This class was won by Mr. W. Bentley with a fine lot of Mrs. Theodore Roosevelt; second, Messrs. S. McGredy and Son with Mrs. Amy Hammond; third, Mr. Hugh Dickson with Mrs. Theodore Roosevelt.

For nine distinct varieties of new decorative Roses, Mr. John Pigg was first, followed by Messrs. S. Bide and Sons and Mr. J. Mattock.

Messrs. Frank Cant and Co. were first for twelve distinct varieties of wichuraiana Roses. Among the best varieties were Excelsior and Joseph Lamy. Mr. E. J. Hicks was second with a beautiful assortment, including Hiawatha and Alberic Barbier.

For nine blooms of any new Rose, Mr. Hugh Dickson was first with a grand box of the beautiful deep red Hybrid Tea Leslie Holland; second, Messrs. Alex. Dickson and Sons with Mrs. Cornwallis-West; third, Mr. W. Bentley, Leicester, with Lyon Rose.

For twelve blooms of New Roses, distinct varieties, the first prize went to Messrs. Alex. Dickson and Sons for a capital lot, including Mabel Drew, Lyon Rose and Mrs. E. J. Holland; second, Mr. Hugh Dickson; third, Mr. W. Bentley.

Mr. Charles Turner was first for an arch decoration with long sprays of climbing Roses, the variety Crimson Rambler being utilised with telling effect; second, Mr. H. Drew; third, Messrs. John Jefferies and Son, Limited.

ROSES IN VASES.

Many beautiful exhibits were shown in vases. For twelve distinct varieties, seven blooms of each in a vase, Messrs. Alex. Dickson and Sons gained the premier award. A vase of Duchess of Wellington was much admired. Second, Messrs. D. Prior and Son, who showed lovely vases of the Lyon Rose and Mme. Jules Gravereaux; third, Messrs. John Jefferies and Son, Limited.

For nine distinct varieties of Teas or Noisettes, seven blooms of each, Mr. Prince gained the first place with some really fine blooms, including Molly S. Crawford and W. R. Smith; second, Mr. J. Mattock; third, Mr. H. Drew.

Mr. Charles Turner, Slough, was first for nine distinct varieties of decorative Roses in vases. Messrs. W. Spooner and Son and Messrs. G. Jackman and Son were the runners-up.

DECORATIVE ROSES.

Very keen interest was centred around the class competing for a piece of plate presented by the Rev. J. H. Pemberton, president of the National Rose Society. This prize was won by Mr. Walter Easlea, Danecroft Rosery, Eastwood, Essex. His exhibit comprised a number of baskets of cut Roses, a distinct variety in each basket. Among the best baskets of Roses were Prince de Bulgarie, which was arranged in a charming way. Marquise de Sinety, Mme. Abel Chatenay and Betty were shown in very fine form and came in for general admiration. Mr. John Mattock was second for nine baskets of cut Roses, and Messrs. S. Bide and Sons, Limited, were third.

The Rev. F. R. Burnside, vice-president of the National Rose Society, offered a piece of plate for five baskets of cut Roses. This was won by Mr. Hugh Dickson, who showed some beautiful new Roses in competition. Messrs. W. Spooner and Sons, Woking, and Mr. John Pigg, Royston, Herts, were second and third respectively.

For eighteen distinct varieties, shown in vases, Messrs. John Jefferies and Sons, Limited, gained the first place. Mme. Jules Grolez and Harry Pike were two of the best varieties shown. The second place was taken by Mr. J. Barrow, who had some very pretty blooms of Clara Watson and Mme. Melanie Soupert.

For sixteen varieties shown in boxes, Mr. E. J. Hicks was a good first. His blooms were wonderfully fresh and well coloured. The second prize fell to the lot of Mr. J. Mattock, and the third to Messrs. Frank Cant and Co.

The Turner Challenge Cup, for thirty-six distinct varieties of decorative Roses, went to Mr. J. Mattock, Oxford, who was closely followed by Mr. G. Prince, Longworth; Messrs. Paul and Son, Cheshunt; and Messrs. Frank Cant and Co., Colchester, respectively.

A similar class, for eighteen distinct varieties, was won by Messrs. W. Spooner and Son, Arthur Bridge Nurseries, Woking, followed by Mr. John Barrow, Leicester, and Mr. E. J. Hicks, Twyford.

Messrs. Spooner also secured first place for a group of eighteen summer-flowering Roses; second, Messrs. Frank Cant and Co.

Mr. Prince was to the fore in the class for eleven varieties of decorative Roses, followed by Mr. E. J. Hicks and Messrs. G. Jackman and Son. Irish Elegance was the best variety shown in this class.

AMATEURS.

The amateur champion class found no fewer than seven competitors, and their exhibits made a goodly array of fine quality flowers.

Mr. E. B. Lindsell, Hitchin, Herts, again secured the coveted trophy and honour, winning with a capital lot of even flowers. Noteworthy varieties were Mildred Grant, William Shean, Bessie Brown, Yvonne Vacherot, Her Majesty, Mme. Jules Gravereaux, Mrs. Stewart Clark, Dean Hole, Hugh Dickson, Comtesse de Nadaillac, Dr. O'Donel Brown, Souvenir d'Elise Vardon, A. K. Williams, Duke of Wellington and Charles Lefebvre. With a much less meritorious lot of blooms Mr. Alfred Tate, Downside, Leatherhead, secured second prize. Maman Cochet, G. C. Waud, Horace Vernet and Florence Pemberton were specially good blooms. Third prize was won by Mr. W. Boyes, Middleton-in-the-Wolds, East Yorks, a fine bloom of Mrs. John Laing and another of Mrs. Stewart Clark calling for attention.

Mr. Lindsell also won premier honours in the class for twenty-four blooms, distinct, there being four competitors. The blooms were not very even, however, and among the better flowers we noticed J. B. Clark, Maman Cochet, Yvonne Vacherot, Alfred Colomb, Hugh Dickson and Dean Hole. Second prize was awarded to Mr. Tom Park, Askew Mill, Bedale, with a smaller, though more even, set

of blooms. Lyon Rose, Florence Pemberton and Bessie Brown were the best. Mr. F. Dennison, Cranford, Leamington, won third prize with a fair exhibit.

In the class for twelve distinct varieties, three blooms of each, there were five exhibitors. Mr. Alfred Tate was the victor in this instance, winning with a fine series of good blooms, Lady Ashtown, Yvonne Vacherot, White Maman Cochet, Maman Cochet, Dean Hole, Bessie Brown and Hugh Dickson being especially noteworthy. Second prize fell to the lot of Mr. Tom Park, whose flowers were represented by more colour than the varieties in the leading stand. Mamie was a variety that was seen in good form in this exhibit. The amateur champion, Mr. Lindsell, was placed third in this class, the blooms being large but past their best. William Shean and Mildred Grant were good varieties, however.

In the class for nine blooms of any Rose except Tea or Noisette, for the prize offered by Messrs. Thomas Rivers and Son, Sawbridgeworth, there were no fewer than seven entries. First prize was well won by Dr. F. E. Pallett, Earl's Colne, Essex, with a beautiful series of well-coloured specimens of Mrs. W. J. Grant. With Bessie Brown Mr. Henry V. Machin, Gateford Hill, Worksop, won second prize, and third prize was secured by Mr. Tom Park with Florence Pemberton.

Of the four entrants for the Hobbies Cup, given for twenty-four distinct varieties to growers of fewer than 3,000 plants, Mr. H. A. Darlington, Park House, Potter's Bar, was adjudged first for a nice, fairly even set of blooms. Dean Hole, Caroline Testout, Mildred Grant, Mme. Gabriel Luizet, Lyon Rose and Lady Ashtown were the more striking varieties. Second prize was secured by Mr. E. M. Eversfield, Denne Park, Horsham, a fine bloom of Maman Cochet and another of Hugh Dickson being in splendid form and condition. Mr. Boyes was placed third with a creditable exhibit.

In the same division for nine blooms of any Rose except Tea or Noisette, the five entrants showed Frau Karl Druschki, Mr. Boyes winning the first prize with capital examples. The Rev. R. Powley, Upton Scudamore, Warminster, was second, and Mr. H. A. Darlington third, the two latter exhibitors being very close indeed.

OPEN TO GROWERS OF FEWER THAN 2,000 PLANTS.

For the challenge cup presented by Captain Christy, in a class for twenty-four blooms, distinct, there were but two entries, a very beautiful exhibit gaining first prize for Mr. W. O. Times, Hitchin, Herts, Charles Lefebvre, Horace Vernet, Mrs. John Bateman, Ulster, Bessie Brown, Oberhofgartner Terks, William Shean, Mme. Jules Gravereaux and Mrs. Stewart Clark being the better flowers. Second prize was awarded to Mr. D. H. H. Church, Warlingham, Surrey, with a creditable display.

There were four entrants in the class for eighteen blooms, distinct, leading honours resting with Mrs. E. Croft Murray, Perivale, Ryde, Isle of Wight. The blooms were fresh, clean and of good colour, White Maman Cochet, La Havre, Marie Baumann, Mrs. Stewart Clark and Frau Karl Druschki being the more striking varieties. Mr. G. Speight, Market Harborough, was an uncomfortably close second, the blooms being larger, though less even, than those in the first prize stand. Mildred Grant and Mrs. E. Mawley were fine blooms. Third prize was won by Mr. C. C. Williamson, Wilstead, Canterbury, with an interesting series.

In the class for six blooms of any Rose except Tea or Noisette there were four competitors, a very fine lot of Florence Pemberton placing Mr. G. Speight in the leading position. Second prize was awarded to Mr. J. Hart, Little Heath, Potter's Bar, with Frau Karl Druschki, and with the same variety Mr. W. O. Times was third.

In an extra class for growers in E and D divisions, for three blooms each of eight varieties, there were only two entrants. Mr. E. M. Eversfield was a good first, having Hugh Dickson, White Maman Cochet, Maman Cochet and Ulrich Brunner as his best varieties. Second prize was awarded to the Rev. J. A. L. Fellowes, Bunwell Rectory, Attleborough, with a bright series.

OPEN TO GROWERS OF FEWER THAN 1,000 PLANTS.

For twelve blooms, distinct varieties, Mr. Courtney Page, Earldoms, Ridgeway, Enfield, N., led the three exhibitors with a very beautiful, even fresh, lot of blooms. Mildred Grant, Lyon Rose, Maman Cochet, Duchess of Portland, Margaret, Papa Lambert, Bessie Brown and Her Majesty were all very good. Mr. Charles Lamplough, Kirkstall, Alverstoke, was a good second. Her Majesty, Dean Hole and Bessie Brown were especially good. Mr. Mahlon Whittle, 60, Belgrave Avenue, Belgrave, Leicester, was a good third.

There were six competitors in the class for six blooms of any Rose except Tea or Noisette, a beautiful series of Bessie Brown winning first prize for Mr. Charles Lamplough. With very charming blooms of Frau Karl Druschki, Mr. Francis Crawley, Stockwood, Luton, was an excellent second; and with Mrs. John Laing, the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead, was third. There was one very fine bloom in the latter exhibit.

OPEN TO GROWERS OF FEWER THAN 750 PLANTS.

For a piece of plate offered by Messrs. G. and W. H. Burch, Peterborough, for twelve blooms, distinct varieties, there were no fewer than ten exhibitors. First prize was won by the Rev. Chalmers Hunt, Willian Rectory, Hitchin, Herts, with a capital series. Bessie Brown, Mrs. John Laing, J. B. Clark, White Maman Cochet and Dean Hole were capital specimens. Mr. G. Moules, Bedford Road, Hitchin, was deservedly awarded second prize, J. B. Clark, Mme. Jules Gravereaux, Mildred Grant and F. Michelon being conspicuous blooms. A very neat and even lot of blooms secured third prize for Mr. E. B. Lehmann, Ifield Lodge, Crawley, Sussex.

There were four competitors in the class for six blooms of any Rose except Tea or Noisette. With a very handsome series of Frau Karl Druschki, Mr. J. J. Williamson, Hawk's Hill House, Walmer, well won first prize. With Mrs. John Laing, Mr. George Moules secured second honours; and with six large blooms of Her Majesty, Mr. V. Rolt, Brook House, Storrington, Pulborough, was placed third.

In the class for four distinct varieties, three blooms of each, there were six competitors. A really excellent lot of blooms won first prize for Mr. J. J. Williamson, who had White Maman Cochet, Lady Moyra Beauclerc and Dean Hole in fine form. Second prize went to Mr. Charles Lamplough with a capital series, Hugh Dickson being finely represented in his exhibit. The Rev. Chalmers Hunt was awarded third prize with a meritorious series.

OPEN TO GROWERS OF FEWER THAN 500 PLANTS.

Five competitors were seen in the class for nine blooms, distinct, first prize being well won by Mr. William Upton, 16, Claremont Street, Leicester. Mme. Jules Gravereaux, Caroline Testout, Mildred Grant, Bessie Brown and William Shean were splendidly represented. The Rev. F. R. Burnside, Great Stambridge Rectory, Essex, was awarded second prize, Mildred Grant and White Maman Cochet being good. Third prize was placed to the credit of Mr. Stuart Hogg, Leaside Cottage, Hertingfordbury, with an even set of blooms.

For a piece of plate offered by Messrs. J. Burrell and Co., Cambridge, there were no fewer than eight competitors. Mr. H. Clinton Baker, Bayfordbury, Hertford, winning first prize and the piece of plate. Maman Cochet and Hugh Dickson were his best flowers. Mr. G. C. Sawday, Heath Road, Weybridge, was a very close second; and third prize was won by Mrs. A. E. Clark, The Hurst, Mottingham, Kent.

For six blooms of any Rose except Tea or Noisette, Mr. William Upton led the van with beautiful blooms of Bessie Brown. Mr. F. J. Nightingale, 1, Cambridge Gardens, The Common, Sutton, was second with Her Majesty; and with Frau Karl Druschki Mr. James Gibb, Westfield, Reigate, was third.

OPEN TO GROWERS OF FEWER THAN 350 PLANTS.

In the class for the Grahame Memorial Prize, for nine blooms, distinct varieties, the eleven exhibitors made a capital display. The leading prize was won by Mr. W. Moore, The Dahlias, Caversham, Reading, with a very bright, clean and even lot of blooms. Mrs. John Laing, Mrs. John Bateman, Lyon Rose, White Maman Cochet and Her Majesty were his best flowers. Larger but less interesting blooms won second prize for Mr. J. Smart, Sherwood, Stevenage, Herts. J. B. Clark, Helen Keller, White Maman Cochet, Mrs. Stewart Clark and Florence Pemberton were very handsome examples. Mr. D. H. Davies, Witheridge, Beaconsfield, was third with a nice, even series of blooms.

In the class for six blooms of any Rose except Tea or Noisette, Mrs. H. E. Hall, Cumberland Cottage, Redbourne, Herts, led the four exhibitors, winning with good examples of Frau Karl Druschki. With Mrs. John Laing, Mr. W. Moore was second; and with Bessie Brown, Mr. B. M. Munro, Millfields, Nantwich, was placed third.

An extra class for competitors in the two latter divisions for twelve blooms, three blooms each of four varieties, the eight entrants made a very beautiful display. Leading honours rested with Mr. Upton, who had good blooms of Mme. Jules Gravereaux, William Shean, Florence Pemberton and Her Majesty. Second prize was won by Dr. W. P. Pankridge, Petersfield, Hants, who had some exceptionally fine blooms. With a charming series Mr. H. Clinton Baker was adjudged third, his blooms of Hugh Dickson, White Maman Cochet and Frau Karl Druschki being excellent.

OPEN TO GROWERS OF FEWER THAN 200 PLANTS.

For the piece of plate known as the Ben Cant Memorial Prize, given for six blooms, distinct varieties, there were no fewer than twenty-three exhibits. A beautiful series of blooms secured the first prize for the Rev. T. T. Kershaw, Corsley Rectory, Warminster. His blooms of Ulrich Brunner, Bessie Brown, W. R. Smith and Maman Cochet were capital specimens. Second prize was won by Mr. H. F. Matthews, Berkley House, Stevenage, with a very handsome lot of blooms; and third prize was secured by Mr. W. H. Ames, Church Farm, Burton, Shrivenham.

The winner of the class for six blooms in not less than four varieties was Mr. F. G. Padwick, The Mount, Petersfield; his blooms of Hugh Dickson, William Shean and Mme. Jules Gravereaux were all superb. Second in order of merit was Mr. Joshua Dodwell, Friar Street, Hereford, who had a nice lot of blooms; and third prize was secured by Mr. H. G. Hinton, Heytesbury, Wilts.

There were four competitors in the class for twelve trebles, leading honours being won by the Rev. T. T. Kershaw with good examples of Dean Hole among others. Second prize was won by Mr. T. G. Russell, 78, King Street. Manchester, with a bright lot; and third prize went to Mr. Joshua Dodwell.

In the class for six blooms of any Rose except Tea or Noisette, beautiful specimens of Lady Ashtown won leading honours for Mr. W. H. Ames, and Mr. G. H. Ashbery, Redcliffe, Wallington, Surrey, was second with Papa Lambert; and with Florence Pemberton third prize was won by Mr. R. Dow, Woodbridge, Suffolk. There were five competitors in this class.

FOR GROWERS WITHIN EIGHT MILES OF CHARING CROSS.

These are always interesting classes, and, being confined to metropolitan growers, they have many followers. For the challenge cup offered by Mr. E. R. Smith of Muswell Hill, in a class for six blooms distinct there were seven competitors. Mr. W. E. Martin, Alexandra Grove, North Finchley, N., led the van, winning with nice clean blooms in fresh condition. Second prize was awarded to Mr. W. D. Cony, Wandsworth Common; and third prize went to Mr. H. Whitmee, The Briars, North Finchley, N., with larger though less even flowers.

In addition to the foregoing there were several classes open to new members, in which were to be seen many aspirants for fame in Rose culture, some of whom showed extremely well. In this connection we must mention Mr. B. J. Walker, Market Deeping, Lincolnshire, who won the piece of plate offered by Messrs. D. Prior and Son of Colchester in a class for twelve blooms distinct.

In another class for nine blooms distinct, the first prize-winner was Mrs. Henry Balfour, Langley Lodge, Headington Hill, Oxford, with a charming series of blooms.

A smaller class for six blooms distinct was well contested, first prize being easily won by Mr. H. Crum Ewinz, Nevis, North Berwick, who had marvellously handsome blooms that would have done credit to any stand.

In the class for twenty-four blooms, distinct varieties, for those who have never won the champion trophy or first prize in this class, there was a spirited competition of the six entrants. Mr. G. Speight led with a fine collection of blooms. Lady Moyra Beauclerc, Mme. Jules Gravereaux, Florence Pemberton, Mrs. T. Roosevelt and Mamie were all noteworthy. Second prize was awarded to Dr. T. E. Pallett, who had a meritorious display; and to Mr. Tom Park was credited the third prize.

In the class for twelve blooms distinct, open to all amateurs, the silver cup offered by Messrs. R. Harkness and Co., Hitchin, was won by Dr. T. E. Pallett, out of the ten competitors. The blooms were even and fresh, and the colour better than usual. Mildred Grant, John Cuff, Mamie, Lohengrin and Mrs. G. W. Kershaw were all good. Second prize was secured by Mr. John Hart, who had several very excellent blooms. A fine series, though less even as a whole than some others, won third prize for Mr. E. M. Eversfield.

AMATEURS.—TEA AND NOISETTE EXHIBITION ROSES.

The chief contest in this division is that for eighteen blooms, distinct varieties, for the champion challenge trophy, value twenty-five guineas, the winner also to receive a memorial replica of the trophy. Of the six entrants Mr. O. G. Orpen, West Bergholt, was adjudged the champion for the present year, winning with a lovely, even lot of blooms. Maman Cochet, White Maman Cochet, Mrs. Edward Mawley, Cleopatra, Catherine Mermet, Medea, Souv. de S. A. Prince, Muriel Grahame and The Bride were his best blooms. An interesting series won second prize for Mr. Conway Jones, Hucclecote, Gloucester, W. R. Smith and Maman Cochet being noteworthy. Mr. Tom Park won the third prize, having many excellent flowers in his stand.

For twelve blooms, distinct varieties, there were again six entrants. First prize fell to the lot of Mr. E. M. Eversfield, who had a good exhibit that suffered terribly from the heat as the day progressed. White Maman Cochet, Mrs. W. R. Smith, Maman Cochet, Mrs. Edward Mawley and The Bride were capital specimens. Mr. Orpen was placed second with a series that lasted well, in which were several beautiful blooms. Mr. Alfred Tate was third with a charming set.

TEA AND NOISETTE ROSES.—AMATEURS.

There were four competitors in the class for eight trebles for the Prince Memorial Prize, Mr. Orpen again being to the fore with a very handsome lot of blooms. Mme. Jules Gravereaux, White Maman Cochet, Maman Cochet, The Bride, Catherine Mermet, Souv. de Pierre Notting and Souv. de S. A. Prince were all good. Mr. E. M. Eversfield was second with an interesting series; and third prize was won by Mrs. Beville Fortescue, Dropmore, Maidenhead, with a very sweet set of well-coloured blooms.

For six blooms of any one variety, Mr. Eversfield led the six competitors with charming blooms of White Maman Cochet. With the same variety Mrs. Beville Fortescue was a good second; and with Mme. Jules Gravereaux Mr. Tom Park was third.

OPEN TO GROWERS OF FEWER THAN 500 PLANTS.

Six competitors again faced the judges for twelve blooms of distinct varieties. Winning honours fell to the lot of the Rev. J. B. Shackle, who staged a beautiful series of blooms. M. Henri Berger, Mrs. E. Mawley, Comtesse de Nadaillac and Mme. Jules Gravereaux were the better flowers. The Rev. R. Powley was placed second with a good exhibit; and the Rev. F. R. Burnside third, White Maman Cochet being finely represented by the last mentioned.

No fewer than nine competitors were seen in the class for six blooms of one variety. First prize was well won by the Rev. F. R. Burnside with beautiful blooms of White Maman Cochet. With the same variety Dr. T. E. Pallett was successful in gaining the second award; and the third prize was won by Mrs. E. Croft Murray, also with White Maman Cochet.

OPEN ONLY TO GROWERS OF FEWER THAN 200 PLANTS.

Of the four entrants for nine blooms, distinct varieties, for a piece of plate offered by the society, first prize was awarded to Mr. V. Rolt with a fresh lot of blooms represented in even form. Mr. Mahlon Whittle was second with a pleasing series. A rather poor exhibit won third prize for Mrs. E. M. Barnes, Sydenham House, Rochford.

Six competed in the class for six blooms, distinct, and Mr. William Upton was placed first with a pretty exhibit. Mr. H. Clinton Baker was a very good second, and Mr. H. E. Hall third.

With six very handsome blooms of Mme. Jules Gravereaux Mr. William Upton very easily secured leading honours in the class for six blooms, distinct. Smaller blooms of the same variety placed Mr. Mahlon Whittle second, and with Maman Cochet in fine form and condition Mrs. A. E. Clark was adjudged third place. There were eight competitors in this class.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE NATIONAL SWEET PEA SOCIETY'S TRIALS.

ALTHOUGH the above-named society has done a great deal of useful work in the interests of the Sweet Pea, the most important of all is the holding of trials of varieties each year. Except in a few cases where standard varieties are grown for colour comparison, the sorts grown are new, or comparatively so, and it is with a view to ascertaining officially, and on behalf of its members, the value of these new introductions that the society holds these trials.

By the kindness of Lord and Lady Northcliffe the growing of these varieties for trial was again undertaken at the *Times* Experimental Station, Sutton Green, Surrey, no fewer than 260 stocks being sent there by raisers for that purpose. On Thursday of last week over one hundred members visited these trials, and it will, we think, be of interest to record the results of the floral committee's judging, and also to draw attention to a few varieties which, though not sufficiently good to secure recognition from the above committee, are, nevertheless, too good to be lost sight of.

The variety which received a first-class certificate, and which is reserved for the society's silver medal, to be awarded if it proves worthy of it next year, is Thomas Stevenson, Dobbie's stock, No. 300, sent to the trials by Messrs. Dobbie and Co. of Edinburgh. It is a beautiful orange scarlet variety that does not burn badly in bright sunshine. The other variety securing a first-class certificate is Barbara, a large orange salmon self flower that in the trials came quite true. It was sent by Mr. Holmes of Tuckswood, Norwich. Five varieties received the lesser award of merit, viz., Red Star, from Mr. Malcolm of Duns, a brilliant, glowing scarlet Sweet Pea that is quite true, vigorous, and the flowers withstand bright sunshine; F. Seymour Davis, a white, flushed violet, waved variety of vigorous habit and true to type, sent by Mr. F. Seymour Davis; Mrs. B. Gilbert, a waved variety with white ground faintly striped blue—the stock of this was sent by Messrs. Gilbert and Son, Dyke, Bourne, Lincs, and contained one rogue; May Campbell and Mauve Queen, which came from Messrs. Dobbie and Co. The first-named is a cream ground, waved flower, the standard of which is striped in the centre with purple crimson. The stock of this also gave one rogue. The latter is good and true, and is described by its name.

Of those varieties which failed to secure awards, but which we consider of sufficient merit to justify the raisers in sending them out, mention must be made of Deal's Bouquet, a charming seedling of Helen Pierce type, the cream ground being delicately veined pink and red; Iolanthe, a large, very pure white flower, from Mr. Herbert Chapman; Red Chief, a large, reddish maroon flower, from Mr. R. Bolton; Premier, blood red, from Mr. G. Stark; Maud Holmes, from Robert Sydenham, Limited (this is already in commerce); Dazzler, also in commerce, from Mr. C. W. Breadmore; and Afterglow, from Mr. R. Bolton.

Generally speaking, the stocks sent this year were more true than we have seen others in previous trials, and this may be taken as a welcome indication that raisers of new varieties are working on the right lines. On the other hand, there was not one novelty that possessed any very striking characters. Blue varieties show the least improvement, so far as colour is concerned; and the scarlet, white and cream stocks were the truest to type. The trials have been admirably conducted by Mr. Harry Foster, and great credit is due to him for the excellent condition of practically all the varieties at the time of the members' visit.

After inspecting the trials, the members were entertained to lunch by Lord and Lady Northcliffe. Lady Northcliffe is this year president of the society, and added greatly to the happiness of the gathering by presiding at the lunch, and afterwards personally conducting the members over the stately residence, Sutton Place. The beautiful gardens were also open to the members, who thoroughly enjoyed inspecting the charming wild garden, Rose garden, the magnificent Rose hedges and the blue border composed of Anchusa italica Dropmore variety and Salvia patens. Notwithstanding the intense heat and drought of the past few weeks, the gardens were in splendid condition, and reflected great credit on the head-gardener, Mr. Goatley. Illustrations from photographs taken at Sutton Place appear on page 342.

On the day following the Guildford outing, a party, about thirty in number, paid a visit to Messrs. R. H. Bath's Floral Farms, Wisbech. They were met by

Mr. G. W. Leak of Messrs. R. H. Bath, Limited, who also is the chairman of committee of the National Sweet Pea Society.

After lunch at the Ship Hotel in the quaint town of Wisbech, the party were conveyed in brakes to the very extensive Floral Farms to inspect trials of Sweet Peas that are being carried out this year. A very keen interest was displayed in these trials, at which no fewer than 381 varieties are included.

The Sweet Peas were in good condition, except a few that the sun had burned. The variety Maud Holmes came out well among the crimsons, and Thomas Stevenson appeared to be one of the best of the orange scarlets. It is difficult to single out a few from such a multiplicity of varieties — indeed, there was no variety of outstanding merit—but among those which gave a good account of themselves were Scarlet Monarch (scarlet, true), Holdfast Favourite (lavender blue), Freda Unwin (lavender), Anglian Orange (orange, true), Finetta Bathurst (white) and Florence Wright (white, a good florist's flower). Some interesting comparisons were made between the maroon varieties Othello Spencer, Nubian and Tom Bolton, the flowers, when selected at the same stage, being so much alike that we question if anyone could distinguish one from the other.



LADY NORTHCLIFFE, PRESIDENT OF THE NATIONAL SWEET PEA SOCIETY, WITH THE HON. SECRETARY, MR. C. H. CURTIS (LEFT), AND MR. HORACE J. WRIGHT, AT SUTTON PLACE.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 25. — National Carnation and Picotee Society's Show at Vincent Square, Westminster.

July 26.—Leamington Flower Show (two days). Bishop's Waltham Show. Cardiff and County Show (two days). Irish Gardeners' Association's Meeting. Chesterfield Flower Show.

July 27.—St. Ives Show. Yorkshire Agricultural and Horticultural Show at Rotherham (three days).

July 28. — Southampton Royal Horticultural Society's Show. Cheadle and Cheadle Heath Show (two days).

Royal Horticultural Society's Examinations. — The results of the General Examination held on April 5, 1911, are now issued. Two hundred and two candidates entered for the Senior General Examination, of which 16 per cent. secured places in the first class, 48 per cent. in the second and 35 per cent. in the third. The highest number of marks were gained by G. M. Grover, Studley College, Warwickshire. Sixty-eight candidates entered for the Junior Examination (under eighteen years of age), and of them only four were placed in the first class. These four successful candidates were all trained at the Chelmsford Technical and Industrial Schools.

Sir Frederick W. Moore. — At the conclusion of the visit of Their Majesties the King and Queen to Ireland, the King graciously conferred the honour of knighthood on Frederick W. Moore, M.A., V.M.H., curator of the Royal Botanic Gardens, Glasnevin. It is seldom that this honour is conferred on anyone connected with horticulture, hence this gracious act of His Majesty will be particularly gratifying to those interested in gardening. The new knight was born in 1857, and at the early age of twenty-two was appointed curator of the famous botanic gardens at Glasnevin, succeeding his father, the late Dr. David Moore, who had held the position for forty-two years. Previous to his appointment at Glasnevin, Sir Frederick had for three years held the position of curator of Trinity College Botanic Gardens. Educated largely in Germany and Belgium, he has always taken a very broad view of horticulture, which owes not a little to his enterprise and untiring energy. Sir Frederick is well known in horticultural circles, and we feel sure that those of our readers who have had the pleasure



MESSRS. E. W. KING, W. CUTHBERTSON, A. BURPEE, JUN., W. ATLEE BURPEE AND HUGH DICKSON IN THE SWEET PEA TRIALS AT SUTTON PLACE.

of meeting him will join us in offering to him and Lady Moore our heartiest congratulations. We have much pleasure in reproducing, on page 348, a portrait of Sir Frederick Moore.

British Pteridological Society.—The members of the British Pteridological Society are reminded that the annual meeting of this society will be held this year at Barnstaple on Monday, August 7 (Bank Holiday), and it is to be hoped that a goodly number will be able to arrange to attend it, arriving at Barnstaple, if possible, on the previous Friday and meeting in the evening at the Golden Lion Hotel, which will form the head-quarters. Arrangements can then be made for the Fern-hunting excursions in prospect. As there is ample accommodation in the town, no previous bookings are needed; but the secretary will take it as a favour if a line be dropped to him beforehand stating the intention to be present. Members and friends are invited to bring Fern plants or fronds for naming. The business of the meeting will consist of the presentation of the report and accounts, election of officers and fixing of next year's meeting-place.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.

Abutilon vitifolium.—Our experience with Abutilon vitifolium alba is much the same as that of your correspondent, at least during about thirty years. We now have our second plant, not looking quite as well as it did, but it is so easy to raise from seed that we keep another plant ready. Ours is growing as a standard, with a low wall at the back facing south, but fully exposed to sea winds. It suffers a little from drought and full exposure to the sun, I think, as it quickly droops with the heat. We know of two others here who have had much the same experience, but in their case the plants had to be moved, and they never rallied.—(Mrs.) A. B. TRESTRAIL, *Clevedon, Somerset.*



SOME NEW NARCISSI

White : Top Flower, DEWDROP

Yellow : Top Flower,
QUEEN OF HEARTS
Middle, YELLOW POET

Graft hybrids. — In reference to your article in the number for July 12 on graft hybridisation, I beg to say that something of a similar kind has occurred in regard to some wild Briar stocks budded with wichuraiana Roses of different kinds, and notably in the case of one budded with Paul Transon. The budding has become entirely incorporated with the stock, and the whole of the bark of the stock has assumed the colour and general consistency of the wichuraiana, and if it was not known to have been a budded stock, it would undoubtedly be mistaken for a wichuraiana on its own roots. It would be interesting to know if this has been noticed by others. If a side shoot shows below the budding, I shall test its flower to see what sort of bloom it will give.—C. LEMESLE ADAMS, *Wolverhampton.*

A Leeds College Professor and Potatoes.—Assuming your correspondent T. Owen has correctly reported the remarks by the Leeds College Horticultural Instructor on Potato identities, one can but sympathise with that gentleman's hearers if the remarks thus mentioned constituted the average mental pabulum furnished to them. Let us hope, however, that such is not the case. Observations as to the identities of Potatoes or their difference are of little moment to cottagers. Far more important is information as to the best general varieties for localities, and how to treat and grow them to secure the heaviest and cleanest crops. As to whether Duke of York and Midlothian Early are identical, it is well known that the latter was a strong-growing selection from the former, and as from the time of its being put into commerce till now it has retained that more robust character, its distribution under that name was amply justified. I was specially invited several years ago to see both varieties and many others tested by Messrs. Dobbie and Co. at Marks Tey, and there the selection Midlothian Early, in growth and cropping, showed a distinct advance over Duke of York. But Mr. Owen is quite at fault in describing Duke of York as a white kidney, if he means its flesh. The flesh of both that and of Midlothian Early is yellow, and the tubers in both cases are of identical shape and have the same external specks on the coats. Under one or other name this kidney is very widely grown. As to Up-to-Date and Factor being the same, certainly to a casual observer they may, growing side by side, seem to be so; as, indeed, there are so many fine varieties in commerce of which the same may be said. But Factor, as I have proved over and over again, is not only a heavier cropper than Up-to-Date, but its tubers are of better form, flesh more yellow and of better flavour, and it is altogether a superior variety. If I were asked to name the two finest late bearing, cropping and best eating Potatoes to-day, they would be Factor and White City, even though someone may rise up and declare the latter to be Up-to-Date. It is to me utterly inconceivable that any lecturer should have told his hearers that new varieties of Potatoes were obtained simply by watching the rows and selecting any specially strong plants. As a rule, selections, as I have shown, may sometimes be so made, as is done with every description of vegetable; but to say that all new Potatoes are so produced is not merely stupid, but absolutely false. What of the myriads of seedlings, the product of intercrossing the flowers of varieties, raised during the past fifty years? Only last spring I saw thousands of seedling varieties so raised by Messrs. Sutton and Sons of Reading, a truly wonderful collection, but of which, after all, only a very moderate selection is being, or can be, grown for further trial. In a few years, no doubt, many of these superb seedlings will come into commerce.—A. DEAN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

MELONS.—Very liberal treatment must be meted out to the plants on which the fruits are swelling. Liquid manure may be given more often and with increased strength as the fruits approach maturity. This may also be supplemented with an occasional application of Le Fruitier. When the fruits are actually ripening, stimulants must be withheld and clear water only given sparingly. Plants growing in frames will need regular attention in the matter of stopping and regulating the growth. Endeavour to obtain a good set of fruit by fertilising the flowers when there are sufficient open on each plant. During this stage admit plenty of air, and never entirely close the frames till a good set of fruit has been secured. Water must be applied carefully till the fruits are swelling. The last sowing may be made now if not already done.

Strawberries for Forcing.—No time must be lost in placing those plants which will be required for very early forcing into their fruiting pots, so that they may get well established and matured before autumn. Sufficient soil should be prepared for the whole batch and kept under cover. All that is required are good fibrous loam and crushed bones. Pot the plants firmly into 6-inch pots and see that the crowns are not buried lower than the surface of the soil. For a few days after potting the plants will be the better if kept in the shade and frequently sprayed with water, after which they must be placed in an exposed position on a bed of ashes.

Figs.—Should it be desirable, a second crop of Figs may be procured from the early permanent trees. There will be far too many fruits showing on the young wood. These must be considerably reduced, or the fruits will be of little value when ripe. Attend to the stopping of the growth, and where this is becoming too thick, give it a liberal thinning. Should there be red spider on the leaves, syringe them late in the day with an insecticide. This may be repeated after an interval of two or three days. The atmosphere in the house must be kept moist and warm to encourage the fruits to swell, but no fire-heat will be needed unless the weather becomes unusually cold. So far the weather has been very favourable for the development of Figs outdoors, and the prospects of the fruits ripening are very cheerful provided the weather continues to be good. A common error in regard to Fig culture outdoors is to allow the trees to make far too much growth. This, of course, has a retarding influence on the fruit. Not only must the growing shoots be frequently stopped, but the growth must be sufficiently thinned out to allow sunshine and air to penetrate right through the trees. Established trees which are showing plenty of fruit will need one or two good applications of manure-water. A mulching of rotten manure will also be beneficial.

Outdoor Vines.—Like the Figs, these depend to a large extent on a warm, genial summer to ripen their crops. But, apart from this, cultural details must not be neglected. Growth must be kept thinned and stopped to encourage the development of the fruit. The Vine requires much the same treatment as the Fig in regard to the application of manures. Keep a look-out for mildew, and should this appear, dust the affected parts with flowers of sulphur.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS,

FRUITS UNDER GLASS.

EARLY VINES.—A free circulation of air, both night and day, should be afforded to these, in order to thoroughly mature the shoots and to develop prominent buds at the base. Water should also be supplied liberally until the leaves are seen to be changing colour, after which it may be gradually withheld.

Midseason Grapes that are beginning to colour require careful attention in the way of water and ventilation. The variety Madresfield Court is very liable to crack when at that stage, and on no account should it be subjected to any sudden variations of temperature or of moisture at the roots. A steady supply of water should be given during the whole of the growing season, and just before colouring commences the lateral growths should be allowed to extend freely, the atmosphere kept fairly dry, and the house moderately ventilated both night and day when approaching ripeness. This variety, as well as Black Hamburgh and Muscat of Alexandria, are liable to shrivel during hot weather if the borders are not kept moist, and many good growers endeavour to stop a too rapid evaporation by giving the borders a covering of meadow hay, which retains sufficient moisture at the roots without altering or increasing the amount of moisture in the atmosphere of the house. In addition, the bunches may require to be slightly shaded if the foliage is considered insufficient for that purpose.

Late Vines now require abundance of liquid manure to enable them to develop large bunches of berries. Some varieties, notably Lady Downe's, are very liable to get scorched if the temperature is allowed to rise too high without ventilation, especially when moisture is on the berries. To avoid this it is a safe plan to leave the top ventilators open a little all night, as the damage is generally done in the early morning. A top-dressing of good loam mixed with some reliable quick-acting manure may be applied to Vines that are showing fresh surface roots. This, in addition to the application of plenty of liquid manure from the stables, will assist the Vines to finish their crops.

Pot Vines.—Plants that have been grown with the view of their bearing fruit early next season should now have the pots well filled with roots, and will stand some slight manurial assistance. The canes should be stopped when about 10 feet long and the laterals pinched at the first leaf. They should be trained near the glass, fully exposed to the sun and kept well syringed morning and evening. When the canes commence to mature, ventilation should be gradually increased and the atmosphere kept somewhat drier, finally removing them after growth has quite ceased to a position outdoors.

Melons.—Seeds may still be sown for supplying fruit in the autumn if there are suitable houses for the purpose. Plants that are swelling their fruits should have all secondary growths removed as they appear, and the bed should be given a top-dressing of fibrous loam and a suitable fertiliser, and be watered with tepid water. Syringe freely both morning and early in the afternoon when the house is shut up for the day. Plants with fruit commencing to ripen should have the water gradually withheld and a drier atmosphere maintained. A little more heat in the pipes, with a current of air during the night, as well as by day, will help the flavour and prevent cracking of the fruit. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

THE COTTAGE GARDEN STRAWBERRY-BED.

(*Continued from page* 333.)

PLANTING.—We will suppose there will be three rows in a bed. Plant the middle row first, the plants to be 15 inches apart in the row; but instead of planting one plant at this distance apart, put three together, thus ***, and call them, as it were, one plant. Plants are small and cheap at this time, and there is an immense gain obtained by this method of planting over that of planting single plants. The rows on either side of the centre one should be 15 inches distant from it and planted in the same way as the centre row. In planting be careful not to bury the crowns of the young plants too deep. Plant, if possible, immediately after a shower of rain, while the ground is fairly moist. Do not forget to press the soil with the hands firmly to the roots of the plants, and give the plants a good soaking of water immediately after planting.

How to Propagate the Young Plants.—The best and simplest way is to watch for the earliest and strongest runners, and then to make a hole in the ground with a crowbar, not too large, say, 3 inches deep and the same width. Fill up these holes with fine loamy soil, press in firmly, lay the runners on the new soil and lightly press them in; then place a stone pebble of fair weight on the stem of the runner close to the collar of the young plant. This will keep it in position; it will also press the plant gently against the soil, soon inducing it to throw out a number of roots, which in the course of a fortnight or three weeks, if carefully watered, will have filled the new soil. They may then be easily and expeditiously lifted with a fork, each one having formed a solid bole of roots in the new earth, and should be planted at once. As mentioned before, such plants, if not propagated at home, may be purchased from our nurserymen cheaply at that time. The advantage of planting so early lies in the fact that the plants have the whole summer and autumn before them to complete a strong growth and to fill the soil with abundance of healthy, virile roots, which will not fail to give a good account of themselves the following year and for two years afterwards; but, generally speaking, the best crop is obtained the first year.

After-treatment of the Beds.—As mentioned before, the Strawberry is a surface-rooting plant; therefore the best way of stimulating and nourishing it is by surface-dressing with manure. A bed planted in July should have a layer of rotten manure laid over its surface at the end of October, to be lightly forked into the ground early in March, hoeing the ground afterwards frequently to keep down weeds. Just before the plants come into bloom, the ground between them should be littered with short straw in order to save the fruit from being soiled when ripe. As soon as the fruit has been gathered, a large number of the outside leaves of each plant should be cut off and cleared away with the littery straw, so that the plants may be the better exposed to as much light and air as possible during the remainder of the summer. When the leaves have been cleared away, prick over the surface of the ground lightly with a fork to break open the hardness of the surface, and then give the bed a surface-dressing of rotten farmyard manure 3 inches deep. This completes the course of treatment for the year.

Varieties.—There are hosts of these, but for a cottage garden Royal Sovereign is far and away the best sort. Messrs. Laxton Brothers of Bedford, if they had raised no other Strawberry than this, would have rendered services of incalculable value both to fruit-growers and to the public, for, taking it all in all, it is the best Strawberry we have ever had. It is a strong, healthy grower, a splendid and reliable cropper, attractive in appearance, of excellent flavour and among the earliest to fruit. Should anyone wish to have a later-fruiting variety to follow it, they cannot do better than plant Givon's Late Prolific, a handsome variety of delicious flavour. OWEN THOMAS, V.M.H.



VIEW IN THE WATER GARDEN ARRANGED BY MESSRS. R. WALLACE AND CO. AT THE NORWICH SHOW.

SOME NEW AUTUMN RASPBERRIES.

THESE are most useful when given the necessary autumn culture, which is most simple and at the same time gives a good return. As most growers of the summer varieties are aware, it is an easy matter to make the summer-fruiting sorts bear well into the autumn by pruning them severely in the early spring. One of the best for late summer supplies is Superlative. This I have often pruned late and had good fruits in September. It is not necessary to treat all the plants in this way, but just a small portion, to get a succession; indeed, the plants often fruit on the late growths without any special pruning, so that, providing the old fruiting canes are cut out as soon as the fruits are cleared, the late canes may be expected to give some fruits.

But I would draw attention now to what may be termed autumn-fruiting Raspberries, of which there are not a great number of varieties. I think the red sorts are the most liked, though for certain purposes the October Yellow, a medium-sized fruit with good flavour and a prolific bearer, is a favourite, and is often grown under the name of Yellow Four Seasons. It is a less acid fruit than October Red. Recently we have had some new autumn Raspberries of great merit sent out by Messrs. J. Veitch and Sons. One is the new November Abundance, a great bearer and a very vigorous grower. In this respect it much resembles Superlative, which is one of the parents. The fruit is large and deep red in colour, and, for the late season, of excellent quality, the fruit being had from the middle of October to early November. Owing to its free growth it should be given plenty of room. The same firm have also a new autumn Raspberry this year grown under the name of Queen Alexandra. This I have not grown, but it appears to be an excellent addition to the autumn fruiters. Of the older kinds, doubtless the best late red fruit is Belle de Fontenay, a large, round, deep red, well-flavoured fruit, in season the end of September and through October. It is also known under the name of Perpetual de Billard, and when well grown gives a large fruit.

I have at times treated Semper Fidelis as an early autumn bearer and got fine fruits in advance of the true autumn Raspberries.

The autumn Raspberries throw up suckers very freely, and these, to get good fruits, should be severely thinned. The best results are secured when the growths are trained to a fence or wires and given ample room. The old growths should be cut down to the ground in February, and the canes that follow be well thinned out, leaving the strongest and training them as described above. In thin or light soil the plants should be given a mulch of manure in July or August if the weather is hot and dry. G. WYTHES.

THE GREENHOUSE

PENTSTEMONS FROM CUTTINGS AND SEEDS.

ONE cannot wonder that these refined-looking flowers are becoming more popular every year, because the plants are easily grown, hardy and flower most profusely. One of the main factors in the growing popularity of the plants is the increased beauty of the flowers. During the past few years our raisers have given much attention to the improvement of the colours of the flowers, and also to their size. Not so very long ago the range of colour in these flowers was very limited; now we have a very wide one. There are mauves, purples, pinks, crimsons, rose and blue shades, and some almost pure selfs. Stocks may be readily raised by inserting cuttings or by sowing seeds. The latter and cuttings may be put in during July and the first half of August, or seeds may be sown as early as February and the resultant plants flowered during the following summer. To accomplish this the young plants must be grown in frames throughout the spring months.

When seeds are sown or cuttings are inserted in the latter part of summer, the stock resulting must be grown on hardily until the flowering period the following summer, which will be early. It is, however, wise on the part of the cultivator to afford the young plants a little protection during any severe weather in the depth of winter, especially in the more Northern Counties. Young shoots must be selected for cuttings, and they should be inserted in a bed of light soil and sand and covered with a bell-glass, hand-light or frame until roots have formed. The bed for the cuttings must be made very firm. Sow the seeds in a similar compost very thinly, and transplant the resultant seedlings in another border before they become weak. For bedding purposes it is very important that the plants be kept sturdy. A medium light and fairly rich garden loam is quite suitable for the plants to flower in. Where the soil is heavy and clayey, it must be lightened a little by adding sifted leaf-soil and sand or road grit. Packets containing seeds that will produce plants bearing flowers of various colours or distinct colours may be purchased.

MIGNONETTE FOR WINTER FLOWERING IN POTS.

MIGNONETTE plants are easy to grow in borders during the summer-time if the soil is free from wireworm. The cultivation of the plants in pots for winter flowering is a more difficult matter; but as the flowers are so fragrant and useful at that season of the year, the trouble entailed in the cultivation of the plants is always cheerfully undertaken. The plants must have a long season of growth, they should be grown under comparatively cool conditions and not be forced at any stage of growth. It is well to make two sowings, the first about the middle of July and the second a month later. A good holding loam is much better than a very light, sandy one. Fibrous turf which has been cut and stacked for about four months is the best. The turves must be pulled to pieces by hand, not chopped with a spade. The same kind of compost should be used in the small pots prepared for the reception of the seeds as that necessary when the plants are repotted. Fibrous loam two-thirds and sweet leaf-soil one-third form a capital compost; only add sand to render it porous, not any manure at this stage. All the pots—those 3½ inches in diameter—must be well crocked, as sound drainage is very essential to success. Sow three seeds in each pot 1 inch apart in the centre. Cover the seeds lightly and place the pots in a cool frame, if possible, one facing the north, so that plenty of light may reach the resultant seedlings while they are screened from the sun's rays. Water the seedlings very carefully, being sure before giving water that the soil is really getting dry. This should be its condition when water is applied; then the foliage of the plants will remain green and tinted with a healthy bronze, and not turn yellow. Directly it can be seen which is the strongest plant in each pot, retain that one and pull up the others. One strong plant will prove more satisfactory than three or more. Last spring a gardener exhibited three pots of Mignonette. One contained three and the others two and one respectively, and the best pot was the one that contained a single plant. All had received the same treatment. When the young plants are about 3 inches high, the points must be pinched off. Several side shoots will soon grow, and three, four or five must be retained to bear flowers. Not more than seven spikes of blossom should be allowed in a 6½-inch flower-pot. Before the plants become at all pot-bound they must be shifted to larger pots. Keep the plants growing steadily. If they get at all stunted, premature flowering will result. Some well-rotted cow-manure may be added to the soil when the plants are repotted, also a small quantity of soot. After the end of October guard carefully against damp, ventilate freely, and only cover to prevent frost reaching the plants in the frame. Place them on a shelf in the greenhouse at the end of November, and directly the flower-spikes show begin to feed the plants judiciously. Clear soot and manure water, and artificials given according to directions, are sure to increase the size of the flower-spikes. Bismarck (crimson flowers), Crimson Machet, Golden Machet, King of the Dwarfs (crimson) and Miles' Hybrid Spiral (buff-coloured flowers) are splendid varieties for pot culture. AVON.



IBERIS PERFECTION IN A ROCK GARDEN IN SCOTLAND.

FLOWER GARDEN

A FINE PERENNIAL CANDYTUFT.

(IBERIS PERFECTION.)

THE perennial Candytufts are among the most valued of our dwarf rock and border plants, and many are especially valued for their heads of snow white blooms, which are so ornamental in spring and early summer. The most generally known species is Iberis sempervirens (the Evergreen Candytuft), which is also one of the most reliable in every way. A little later comes the fine I. corræfolia, a plant of garden origin, and it is probably to the union of these two that we owe the beautiful I. Perfection, the subject shown in the accompanying illustration. This Candytuft was, if I am correctly informed, raised by Mr. James Grieves of Redbrae Nurseries, Edinburgh, while with the firm of Messrs. Dicksons and Co. of that city, and is one of several fine Iberises which owe their origin to Mr. Grieve. It is of a good compact habit, and has very large heads of shapely, good-sized flowers of a pure white. A good plant is an ornament to any rock garden or flower-border. On the rockwork it has a finer effect than on the level, the rather pendent growth making it eminently suitable for hanging over the slopes or stones of the rock garden.

This perennial Candytuft is easily cultivated in any ordinary soil, and requires very little cultural attention. If a plant becomes large and rather bare in the centre, it should be cut well back to induce fresh growth, and thus rejuvenate the Iberis. I. Perfection is propagated by means of cuttings struck in a frame or under a hand-light after the flowering is over. These cuttings may either be taken off with a heel of the old wood or simply ordinary cuttings of 3 inches or 4 inches long. The soil for the cuttings ought to be light, and a surfacing of sand will be helpful in the process

of rooting, as this can be well watered in after the cuttings are inserted. This fine Iberis is one of a small set of these flowers of great value for the decoration of the rock garden. Another one, named Climax, is a great beauty also. S. A.

SWEET PEA NOTES.

THE "NATIONAL."—Long before these paragraphs appear in print the "National" show of 1911 will have come and gone, reputations will have been made and marred, and the decisions of the judges will have been keenly criticised by those who know precious little about the flower. It is extraordinary, or perhaps, after all, it is not really so, that those who know least about a subject are always the most anxious to discuss it and the loudest in their appreciations when a friend of their own wins, and in their condemnations when the said friend comes down; but if they show and fail to score themselves, they make such a terrible fuss and bother that one would think the very heavens were about to fall. Such occurrences as this are, happily, not common in the Sweet Pea world; but they have been experienced, and the sane man thinks the sooner people of that nature drop from the ranks of Sweet Pea-growers and exhibitors, the better it will be for the cult in general and the show at which the happening occurs in particular. The successful exhibitor is the man who can accept defeat or success with equal quietness, not railing against the one or swaggering about the other, the latter being just as obnoxious as the former.

SOME VARIETIES.—It is not intended at this moment, though many of them have been grown and seen, to deal with the present season's novelties, but to pass in brief review a few of the new sorts of last season because they are in general cultivation. Stirling Stent has already been noted in this column, and dissatisfaction was expressed at its behaviour. I have no personal reason for altering the conclusions then written, but it is simple justice to acknowledge that other growers in my county have been much more highly favoured than myself and have grown splendid plants, producing excellent flowers. Because the Queen much admired Minnie Furnell at the Temple Show, perhaps Mr. Alsen, who introduced it, will call it Royal Minnie Furnell next year. I do not suppose he will, however, because the colour is so very attractive that the flower will make a place for itself whether it is deemed to be Royal or not. The colour is a beautiful pink on a cream ground, and the value of the flower for decorative purposes cannot be doubted. Thomas Stevenson will go to the top of the rich orange scarlet varieties, a place of honour which it fully deserves; but it burns, although some misguided people said that it would not do so. The plant grows splendidly, and the proportion of fours is surprisingly high. Of scarlets, easily my best up to the time of writing is Scarlet Monarch, and if it maintains its promise it will have to be a good one that will oust it from the first place in my selection. Is Moneymaker waved or plain? Perhaps one of my readers will be good enough to enlighten me on the point. I have both types in fine condition, and I am coming to the conclusion that the waved form is the finest white Sweet Pea that it has ever been my pleasure to grow for exhibition. If Mr. Unwin does not manage things so much better that all the world can grow Mrs. W. J. Unwin next season, I shall have to persuade him to have plants grown for seed in Essex. We shall then quickly have an abundant stock. In its colour it has no equal; more than that, it has no rival. Mr. Breadmore's Dazzler has done grandly, and shall have a better place another season; but Freda will not turn out Moneymaker or Etta Dyke, good though it is. Elfrida Pearson is a real beauty, and will take high rank among the light pinks when it is better known. Edrom Beauty has fine points, but I am not enamoured of it up to the present, though I hope to alter my opinion later on. Lord Northcliffe scarcely lives up to its noble name at the time of writing, but I have seen it much better in warmer gardens and am hopeful that it will vastly improve in my own. Maud Holmes comfortably tops the crimsons as well for abundance of flowers as for richness of colour. It did surprisingly well under glass. Florence Nightingale has delighted me by the vigour of its growth, the freedom of flowering and the purity of colour But I must stop, as my space is exhausted. Readers who want all the best noted must apply for more room. A. B. ESSEX.



THE BEAUTIFUL ORIENTAL POPPY JENNY MAWSON.

ORIENTAL POPPY JENNY MAWSON.

THERE is practically no limit to the number of varieties of Papaver orientale, the great Poppy of summer, now at the command of the gardener. The exhibits at the last and former Temple Shows have given visitors to that great floral exhibition some idea of the variety and beauty now presented in these glorious flowers of early summer, and of the improvements effected in them within a comparatively short period. There are many with flowers of glowing scarlet, of brilliant crimson and other shades, and the efforts to secure a good pink one have been rewarded by more or less success in the shape of a considerable number of varieties. Some of these, however, have a somewhat lurid hue, and it is few which even approach in beauty the lovely Jenny Mawson, shown in the accompanying illustration. It is of large size, produced on stiff, erect stems—an advantage with a Poppy like this—while the flowers themselves are of a charming shade of pink, quite free from any unpleasant tone. It is, assuredly, the best of the pink varieties yet introduced, and the raisers, Messrs. Mawson of Windermere, are to be congratulated on their success in producing such a glorious Poppy. It can be cultivated in any ordinary border in the same manner as the other Oriental Poppies.

Dumfries. S. ARNOTT.

DOUBLE DAISIES.

THE dwarf-growing, double-flowered Daisies have been much improved in the last few years. We have now strong-growing plants bearing numerous double flowers of immense size, and as they remain in blossom for a considerable time they are very valuable. The cultivator who has to bed out bulbs largely finds these Daisies most useful and effective as groundwork plants. They are also extremely valuable as pot and box plants, and amateurs who are obliged to grow plants in a restricted area cannot do better than cultivate them. Plants are easily raised from seeds, but many cultivators will wish to retain the stock of plants they now possess. To do this successfully the old specimens must be carefully divided and the separated parts planted in a prepared border. The soil must not be made too rich, but a fair quantity of well-rotted manure may be put in. When planting the Daisies great care must be taken to keep the centres free from soil, as if grit lodges there the growth will be slow and unsatisfactory. After planting syringe the heart or centre of each plant. B

THE ROSE GARDEN.

ROSES WITH LONG BUDS.

PERHAPS there is no form of Rose more admired than those with long buds, especially when needed for buttonholes. A most marvellous variety having this quality is Mrs. Alfred Tate, one of the most delightful of new Roses and one that will soon be in every garden. The coppery red and fawn colouring and ochre shading is a most charming combination of tints, which alone will commend it; but when we have added to this the very deep buds, we have a most lovely Rose. It is a splendid grower and sweetly scented. Another Rose that has gained in popularity ever since it was first shown is Mme. Melanie Soupert, a lovely flower, the apricot and yellowish tints of the buds and their form commanding general admiration. Betty is another good sort, lovely in bud, but rather disappointing when fully out. The buds, however, amply atone for any defect. Pharisaer is one of our best Hybrid Teas, and is rapidly coming to the front. It is a most shapely bud, not readily forgotten when once seen. Duchess of Wellington has pleased me immensely. It is like an orange gold Killarney, only that the tops of the buds close over somewhat, and in wet weather this is a defect; but the glorious colour is quite unique and its growth splendid. Other fine long-budded Roses whose descriptions are readily obtained are Gustave Regis, Anna Ollivier, Lady Roberts, Mme. Hoste, Harry Kirk, Etoile de France, Joseph Lowe, Mrs. George Shawyer, Mme. A. Chatenay, Mme. Segond Weber, Killarney, White Killarney, Kronprinzessin Cecilie, Lady Battersea, Lady Ashtown, Margaret, Mrs. Theodore Roosevelt and My Maryland.

SOME BEAUTIFUL NEW RAMBLER ROSES.

RAMBLER ROSES, like most tribes of this popular flower, are undergoing a sort of popular selection each year, and it is questionable whether some of our favourites to-day will not be discarded a few years hence. It is true some old varieties are as great favourites now as they were when introduced, but I do not imagine present-day novelties will remain favourites for any great length of time, seeing that new sorts are being so rapidly produced.

Fashion seems to determine everything, but one cannot overlook the fact that Queen Flora often leads Fashion. This is in no wise more manifest than as regards the display of Rambler Roses in every millinery shop soon after the introduction of these popular Roses. But, somehow, what is known as the Blue Rambler fails to command appreciation. I put up some plants of it for exhibition recently, and the visitors received it very coldly; but the same individuals would go into raptures over a single Rose little, if anything, better than a wilding of our hedgerows.

The floral committee of the Royal Horticultural Society had before it recently a most delightful novelty from Cheshunt named Sweet Lavender, yet I believe it failed to get an award. Why is it? Is it because this committee lacks good Rose men who can appreciate a decided acquisition in colouring such as this assuredly is? The flower is single, each petal heavily suffused with deep lavender at its edges in the older blooms; but the young flowers are quite crimson-tipped and each one is richly endowed with golden stamens.

Bocca Negra (Dubrieul) is a very rich purplish crimson seedling of Crimson Rambler with single flowers. They are cup shaped and show a large white eye; a distinct and very rich colour among climbers, which gained for the variety high honours at the recent Bagatelle trials in Paris.

Desire Bergera (Barbier).—A very beautiful novelty of the wichuraiana group, being a cross between the type and China Aurore. This Rose received an extra certificate at the Bagatelle trials this season. It produces small bunches of pretty coppery pink and red blooms. Another of Messrs. Barbier's novelties of 1909 to gain an award at the Bagatelle trials was

Joseph Liger (wichuraiana), a cross between the type and China Irene Watts. It is a very free-flowering sort of vigorous growth, blooming in panicles of some twenty to thirty flowers, which are of a delicate canary yellow colour inside, the borders of the petals striped and washed with clear pink. The exterior of the petals is creamy white. The flowers are large, quite 3 inches to 4 inches across, and it should prove to be a very valuable sort.

Graf Zeppelin is one of the multiflora group, having double flowers of a lovely carmine colour a shade or two deeper than Zepherin Drouhin. It is said to be a sport of Non Plus Ultra; if so, it will be useful, as this latter always flowers a week or two earlier than Crimson Rambler. Mr. Charles Turner's

Pink Rambler is good and cannot fail to be an acquisition. There is such a profusion of bloom and the colour is very pleasing. It is, I believe, a pink sport of Crimson Rambler.

Excelsa will be in great demand, and although not so bright as Hiawatha outdoors, it will be liked by reason of its double blossoms. Shower of Gold, American Pillar, Eisenach, Hugo Maweroff, Bagatelle, Milky Way and Geheimat Dr. Mittweg are all good additions to this popular tribe, the last-named being perpetual flowering, which is what we want, providing it is not obtained at the expense of profusion. P.

TREES AND SHRUBS.

THE JAPANESE SNOWBALL TREE.

(VIBURNUM PLICATUM.)

THIS is the sterile-flowered form of the Japanese species, Viburnum tomentosum, and one of the best deciduous shrubs we have which blossom early in June. It grows into a shapely bush 5 feet or more in height, and may generally be relied upon to produce a profusion of snow white flowers, which individually are rather larger than our common Snowball Tree (Viburnum Opulus sterile). In addition to its value as a hardy shrub, V. plicatum is a useful subject for greenhouse decoration in early spring, responding readily to the gentle heat of a forcing-house. The illustration accompanying this note gives a good idea of its value when some dozen or more plants are grown in a large bed. It is also of great value for the shrubbery.

Propagation is readily carried on by means of cuttings of half-ripened shoots from about the middle of July onwards. These will root readily in a close propagating-frame, preferably with a little bottom-heat.



THE JAPANESE SNOWBALL TREE (VIBURNUM PLICATUM).

The Viburnums are found in three continents, Europe, Asia and America. During recent years we have had several valuable additions to the genus from China, notably V. Henryi, V. rhytidophyllum, V. utile and V. buddleifolium. Quite the choicest of all the Viburnums, but less vigorous in growth, is the Korean species, V. Carlesii, which produces its fragrant waxy pink flowers at the end of April or early in May. A. O.

A DOUBLE WHITE LILAC.

(MME. LEMOINE.)

THIS lovely pure white Lilac is flowering most profusely this year in many gardens. It is worthy of extended cultivation, as the plants will grow freely enough in deeply-dug soil of medium quality. Young shoots growing near the ground may be layered during July or the early part of August. The layered branches should be firmly staked to prevent the wind blowing them to and fro, and the soil must be maintained in a regular state of moisture. When sufficiently rooted, sever the layers and transplant them. SHAMROCK.

COLOURED PLATE.

PLATE 1430.

NEW DAFFODILS FROM CHRISTOPHER BOURNE.

THE subject of these notes is in more ways than one "the son of his father," for all of us who knew the Rev. S. E. Bourne cannot fail to recognise in this new-comer into the ranks of the traders many of those traits of character and judgment which gave him the peculiar position he held in the Daffodil world. The geniality and the refinement of taste of the father are repeated in the son. One of his latest and most important purchases, the beautiful Queen of Hearts, shows us the sort of flower he likes.

Simpson, where Mr. Christopher Bourne lives, is a village about two and a-half miles from Bletchley and one and a-half miles from Fenny Stratford. Here he found soil admirably suited for Daffodil farming, and accordingly he settled there two years ago and at once commenced the "spadework" operations of ground preparation and the buying of something to put into it. The task was a big one, but his experience in his father's garden doubtless lightened it in no inconsiderable manner. He knew the requisites of good culture and his taste had been well trained, so in purchasing he did not go astray, as many a beginner might have done. This last spring has, to some extent, familiarised us with his exhibits.

Within the last few days his second catalogue has come into my hands, and I am thus able to say something about it. It is of a convenient size and excellently arranged. Under the new (1910) Royal Horticultural Society's Classification the varieties are alphabetically listed, and to make reference the easier there is an index. The introduction calls attention to some of the very choice novelties which he is offering, and of which in many cases he holds the entire stock. The charming triandrus hybrids are evidently a great speciality. He has in his list a baker's dozen—Alabaster, Alys, Cecil Rhodes, Countess Grey, Lemon Belle, Maid Monica, Little Nell, and the well-known Dorothy Kingsmill are some of them. Poeticus varieties, too, loom large—Symphony (a Birmingham purchase), Walt Whitman, Lullaby and Laura are his particular specialities; but room is found for Socrates, Kingsley, Acme, and almost all the ordinary varieties except Ben Jonson, which I always think ought to be better known.

The coloured plate pictures (1) Dewdrop (Leedsii), not perhaps an exhibition flower, being on the small side, but it has broad overlapping perianth segments and a shapely apricot-tinted cup. (2) Lullaby, one of the newer round type of Poets, with a large clear eye daintily edged with a band of deep madder red. I am told that it is a splendid forcer. (3) Queen of Hearts. This grand variety received an award of merit from the Royal Horticultural Society's Narcissus committee on April 25 of this year. I quote its description from THE GARDEN of May 6, which, since Mr. Bourne has incorporated it in his catalogue, I take it that it fairly represents the flower: "Queen of Hearts is a red cupped incomparabilis with a soft primrose-coloured perianth 3⅜ inches across and composed of wide, overlapping segments which seem a little inclined to 'hood.' The cup, which is entirely red, has a diameter of 1 inch and has the solid look of such flowers as Firebrand. . . . The flower, as a whole, has a soft and refined appearance, which is due to the proportion and harmony of its parts and the blending of its colouring." It is a robust grower. (4) Whitewell. I introduced this myself, having found it going begging in my friend Mr. Polman Mooy's garden at Haarlem. Miss Currey describes it as "A most symmetrical flower; broad white perianth and orange yellow cup; well balanced and solid." (5) Yellow Poet is a new and distinct flower of Poeticus form, but with soft primrose colouring. The eye has a broad band of orange red. A striking characteristic is its strong Poeticus scent. JOSEPH JACOB.



SIR FREDERICK W. MOORE, M.A., V.M.H. (*See page* 342.)

THE TOWN GARDEN.

BULBOUS-ROOTED PLANTS.—In those gardens where crowded clumps of Daffodils exist, no time should now be lost in getting them out of the ground if amateurs would improve the conditions of such things. I say this much advisedly, seeing the numerous complaints of the year and the oft repeated enquiry: "Why have my Daffodils failed to flower? They are looking quite healthy, but I have hardly had a single flower this year." To have to tell enquirers such as those referred to that they will not get any flowers next year also might at first appear quite wrong, and, of course, to say the least, it is not a little discouraging. At the same time, if a difficulty has to be faced, let it be faced at once. To spare the rod is to spoil the child; and to hide from the amateur in gardening affairs sins of omission as well as commission is retrograde in principle, and will neither tend to educate the amateur nor to further beautify a garden. The Daffodil bloom in the spring is too valuable to be lost; hence we might well examine the cause of this non-flowering and try to rectify it.

A PRIMARY CAUSE OF THE FAILURE is the crowded condition of the bulbs, and it may have come about by an error in planting the bulbs too thickly in the beginning, or it may be the outcome of a long tenure of the soil. In each case the bulbs have become so tightly wedged together that their development is practically impossible, yet in congenial soils they continue the struggle for existence, pressing upwards and downwards rather than laterally, which is the more natural way. To lift the bulbs at once—now, during the period of root inactivity—is the most important work of the moment, since it is the first step forward to more complete recovery.

THE NEXT STEP is to take them to some sheltered place in the open, or into a shed, and dry them off. This is best done gradually. Hence, do not lift bulbs that have not seen the light for years and expose them on the housetop or place them in a position where the sun can reach them. Such things virtually are done by the unthinking, but they are irrational and wrong. A good and easily-arranged method is a spare frame-light set in a sheltered spot and raised on pots at the corner, covering it if needs be with a mat or a piece of old carpet. Such an arrangement permits of the passage of air over the bulbs, and this is good—it is, indeed, essential.

TULIPS DIFFER from Daffodills in that they must be lifted and rested each year if success is to be achieved. The lifting and drying operations are, however, practically the same, though the Tulip, being a great sleeper, requires, or prefers, a much longer period of rest.

BORDER CARNATIONS.—These are now ready for layering, and the work may be proceeded with forthwith. To clear away the lowermost leaves from the "grass," or layers, is the first move that must be made. To loosen the soil to a radius of 15 inches from the stem should be the next, to be followed by a thorough soaking of water to the plants. Now prepare some sandy soil and place it about the plants. All is now ready for layering, which is done by inserting the blade of a knife in the stem at a joint and, directing it upwards, cutting into the joint above. Now open the cut thus made and peg the shoot with bent wire or a hairpin in that condition into the earth. S. N. N.

GARDENING FOR BEGINNERS.

MATURING AND LIFTING SHALLOTS.

CONSIDERABLE difference of opinion appears to prevail regarding the period during which it is proper to lift and store this well-known and useful vegetable; and as the season for this work, as generally recognised, is now with us, a few remarks respecting this matter may assist beginners who are in doubt what to do.

It should be remembered that the period of growth is comparatively short, and for this reason everything that hinders should be removed. In many gardens the quarters devoted to Shallots are not so free from weeds as they should be. It may be that fear of damaging the fast-developing bulbs with any tools that may be used deters inexperienced growers from using the hoe between the plants, and this, after all, is a very good reason for the condition in which the quarters are not seldom to be found. Hand weeding is a simple and effectual means of keeping the beds free from weeds, and if only the quarters are looked over occasionally, the smallest weeds as they evolve may be dealt with and removed with ease. It is good, nevertheless, to keep the soil well stirred between the rows of plants, and this may be done with a small hand-fork at the time the weeding is done.

In gardens where the Shallots were planted quite early, the new bulbs will mature at an earlier period of the summer than those planted a month or more later. This is what one might reasonably expect to be the case, and it is for this reason that growers are so often recommended to lift their bulbs at the end of June or early in July. The advantage of early planting and early lifting as a consequence is that it enables the grower to make use of the same quarters for some other crop, where the advantage of planting a week or two earlier at this season is something worth striving after.

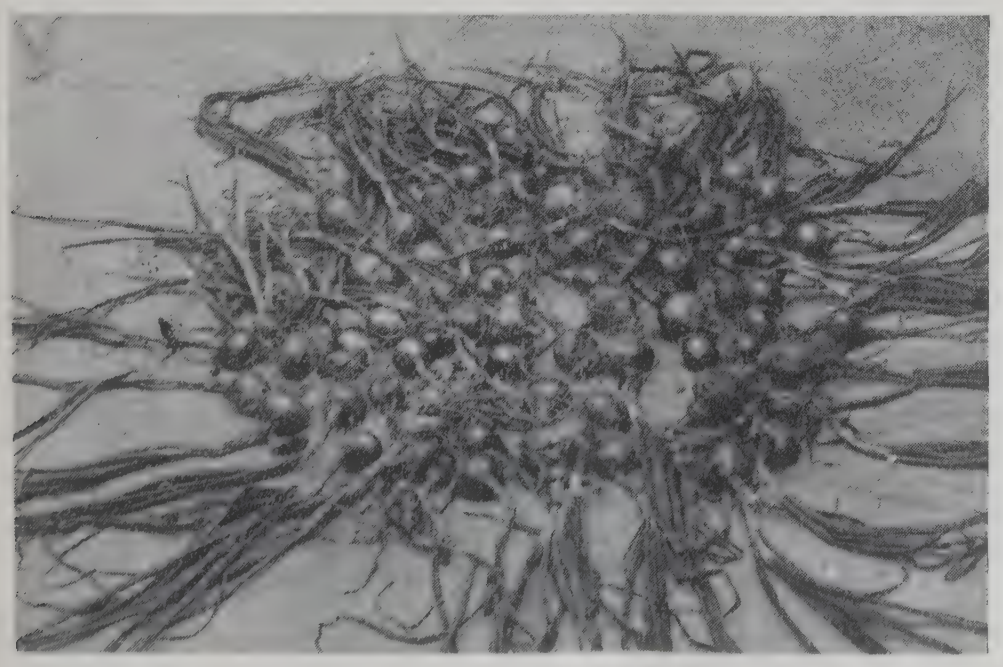
It is customary in gardens where the bulbs are not lifted until the earlier half of August to assist the ripening process by removing the soil, if any, from the base of the bulbs, so that they may be fully exposed to sunshine and air, by which means the ripening is more speedily and more satisfactorily achieved. This is especially to be desired when the weather is dull and moist and the climatic conditions so much against finishing the Shallots satisfactorily. As many beginners are so well aware, the bulbs are all too frequently planted too deeply, in consequence of which the after-culture cannot possibly be as satisfactory as it should be. In order that the inexperienced grower may know what to do, in Fig. 1 three examples of Shallots that represent bulbs from which the soil has been removed from their base and bulbs that have not been dealt with in this way are shown. The two examples on the left of the illustration show quite clearly the advantage of removing the soil from their base. The bulbs prove to be well developed, and need only to be exposed to sunshine and air to ripen them off, so that they may be lifted before the moist weather is upon us again. The plant on the right of the picture serves to show how many Shallots appear to be embedded before the soil is removed from their base. In this condition they seldom finish well, as the soil round about them keeps the bulbs too moist. Plants treated in this way, as the reader will be quick to appreciate, cannot possibly be so satisfactory as those from which the soil at their base has been removed. For this reason those who have Shallots that have not yet matured should put this advice into practice forthwith.



1.—THE RIPENING OF THE BULBS MAY BE ASSISTED BY BENDING DOWN THE GROWTHS AND REMOVING THE SOIL FROM THE BASE.

So soon as the growth is completed — and this is not in the least difficult to determine if careful observation of the bulbs be made— the stems should be bent down in a careful way. A week to ten days, as a rule, suffices between the bending down of the growths and the actual lifting of the bulbs. Shallots are lifted by simply pulling up the whole plant. After lifting, the bulbs should be laid in an airy, sunny position to dry (see Fig. 2), and to assist the drying process the bulbs should be turned over every other day or so. In wet or moist weather spread the bulbs thinly in shallow boxes or on mats in frames or in the cool greenhouse. When thoroughly ripened, store the bulbs in nets or in shallow boxes, or tie them into ropes, subsequently placing these in a cool, dry place until required. In wet weather the bulbs should be looked over occasionally and badly-ripened or decaying specimens removed. The smaller cloves should be selected for planting next season.

D. B. CRANE.



2.—LAY THE BULBS IN A SUNNY PLACE BEFORE STORING.

SPRING CABBAGES.

THE summer or early autumn sowing of Cabbage seeds is a very important matter. Success or failure may both be traced to the raising of the plants too early for that particular part of the country or at a suitable date. The cause of the premature "bolting," or running to seed, of the plants early in the New Year is generally to be traced to the sowing of the seeds too early. Of course, if unsuitable varieties are grown, there is much loss through the "bolting" of the plants. As a rule, it is wise to make two sowings in every district. In the Northern Counties the first sowing may take place about July 20, and the second sowing the first week in August. Some resultant plants from both sowings should be grown on; then the cultivator will be almost sure to have a big majority turn in and heart well. In the Southern Counties the first sowing should be made during the last few days of July, and the second one about August 12. I have grown Cabbages largely in both the Northern and Southern Counties, and have found the course here suggested to be quite reliable. At this season of the year the growth of the plants must be steady, so that it will be firm and capable of withstanding rather severe frosts. Any forcing of the growth should be done in the spring when the plants are hearting and the weather favourable. Sow the seeds broadcast and very thinly in well-prepared ground in an open quarter. The soil must be moderately rich and made fairly firm while the ground is rather dry. When the seedlings possess four leaves, transplant them 4 inches apart in a nursery bed, and then in their permanent quarters, the ground being prepared in a similar way to the seed-bed, that is, made only moderately rich and well firmed. Autumn planting is much better than spring planting. April Queen, Ellam's Early Dwarf Spring, Flower of Spring, Mein's No. 1, Myatt's Early Offenham and Wheeler's Imperial are all good varieties to sow now.

SHAMROCK.

THE PARENTAGE OF ROSES.

(*Continued from page 338.*)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Marquise de Castellane	H.P.	Pernet p.	1869	Seedling Jules Margottin
,, ,, Casteras	P.P.	Puyravaud	1909	Seedling Sisi Ketten
,, ,, Ganay	H.T.	Guillot	1909	Liberty × La France
,, ,, Querhœnt	Tea	Godard	1900	G. Nabonnand × Laurette Messimy
,, Jeanne de la Chataigneraie	H.T.	Soupert	1901	Souv. du President Carnot × Mme. Jules Grolez
,, Litta	H.T.	P. Ducher	1893	Lady M. Fitzwilliam × Eugène Fürst
Martha	P.P.	Lambert	1905	Perpetual Thalia × Laurette Messimy
,, Leclerc	H.P.	Greve	1901	Her Majesty × Baroness Rothschild
Mathilde Liegeard	Tea	Nabonnand	1907	Paul Nabonnand × Maman Cochet
Max Buntzel	Tea	Soupert	1898	Mme. Lambard × Lady Alice
,, Hesdorffer	H.T.	Jacobs	1902	Seedling Kaiserin Augusta Victoria
Maxime Buatois	P.P.	Buatois	1900	Etoile de Mai × Laurette Messimy
May Queen	H.W.	Conard and J.	1899	R. wichuraiana × Champion of the World
Melanie Vigneron	H.P.	Vigneron	1882	Seedling Elizabeth Vigneron
Merrie England	H.P.	Harkness	1897	Sport Heinrich Schultheis
Merveille de Lyon	H.P.	Pernet p.	1882	Sport Baroness Rothschild
,, des Blanches	H.P.	Pernet p.	1894	Sport Baroness Rothschild
Mieze	P.P.	Lambert	1909	Petite Leonie × R. lutea bicolor
Mignonette	P.P.	Guillot f.	1881	Seedling R. multiflora
Mildred Grant	H.T.	A. Dickson	1901	Niphetos × Mme. Willermoz × seedling
Milky Way	H.W.	Walsh	1908	Seedling R. wichuraiana
Mimy Felberg	Tea	Welter	1907	Marie van Houtte × Maréchal Niel
Mina Barbason	H.T.	Soupert	1901	Caroline Testout × Mme. Abel Chatenay
Minnehaha	H.W.	Walsh	1905	R. wichuraiana × Paul Neyron
Miss Agnes C. Sherman	Tea	Nabonnand	1901	P. Nabonnand × Catherine Mermet
,, G. Mesman	M.S.	Mesman	1910	Sport Mme. N. Levavasseur
,, Hassard	H.P.	Turner	1875	Seedling Marguerite de St. Amand
,, Helyett	H.W	Fauque f.	1908	R. wichuraiana × Ernest Metz
,, May Pau.	Tea	Levet	1882	Seedling Thérèse Genevay
,, Willmott	Tea	G. Paul	1898	Seedling L'Ideal
Mogador	D.P.	—	—	Sport Rose du Roi
Mohrenkœnig	H.P.	Vogt	1880	Seedling Souv. de William Wood
Mohrenkœnig	H.T.	Welter	1904	Grüss an Teplitz × Reine Marie Henriette
Monplaisir	D.T.	Ducher	1868	Seedling Gloire de Dijon
Monseigneur Touchet	Tea	Corbœuf	1895	Niphetos × Mme. Chedane Guinoisseau
M. Bienvetu	H.Rug.	Gravereaux	1907	*See* Bienvetu
, Desir	D.T.	Pernet p.	1888	Seedling Gloire de Dijon
,, Hoste	H.P.	Liabaud	1884	Seedling Baron de Bonstettin
,, Moreau	H.P.	Vigneron	1885	Seedling Victor Verdier
,, Noman	H.P.	Laffay	1866	Seedling Jules Margottin
,, Woolfield	H.P.	Guillot p.	1867	Seedling Victor Verdier
Mosella	P.P.	Lambert and R.	1895	Shirley Hibbert × Mignonette × Mme. Falcot
Mrs. Aaron Ward	H.T	P. Ducher	1907	Seedling × seedling
,, Alfred Westmacott	Tea	Soupert	1909	G. Nabonnand × Mme.Constant Soupert
,, Allan Chandler	B.	Chandler	1903	Sport Mrs. Paul
,, Anthony Waterer	H.Rug.	Waterer	1882	Rugosa Hybrid × General Jacqueminot
,, Baker	H.P.	Turner	1876	Seedling Victor Verdier
,, Cocker	H.P.	Cocker	1899	Mrs. John Laing × Mabel Morrison
,, David McKee	H.T.	A. Dickson	1904	Frau Karl Druschki × Kaiserin Augusta Victoria
,, Edward Clayton	Ch.	A. Schwartz	1909	Mme. Eugène Resal × Cora
,, E. G. Hill	H.T.	Soupert	1905	Caroline Testout × Liberty
,, E. Townshend	H.T.	Guillot	1910	Laurette Messimy × Mme. Leon Pain
,, Franklin Dennison	H.T.	Dickson	1907	Seedling Kaiserin Augusta Victoria
,, F. W. Flight	M.S.	Cutbush	1907	Seedling Crimson Rambler
,, F. W. Sanford	H.P.	Curtis and S.	1898	Sport Mrs. John Laing
,, Harold Silberrard	Tea	Robichon	1909	Cornelia Cook × Reynolds Hole
,, Harry Turner	H.P.	Laxton	1880	Seedling Charles Lefebvre
,, Henry Weller	H.T.	Weller	1907	Mme. Abel Chatenay × Mrs. W. J. Grant
,, Hubert Taylor	Tea	A. Dickson	1909	Sport Mme. Cusin
,, Isabelle Milner	H.T.	W. Paul	1907	Princess of Wales × Robert Duncan
,, J. Campbell Hall	Tea	C. Hall	1907	Adam × Anna Chartron
,, John Laing	H.P.	Bennett	1887	Seedling Francois Michelon
,, Littleton-Dewhurst	M.S.	Pearson	1908	Sport Lady Gay
,, Longworth	H.T.	Prince	1906	Sport Caroline Testout
,, Oliver Ames	Tea	May	1902	Sport Mme. Cusin
,, Philip Le Cornu	H.T.	Le Cornu	1910	Mrs. W. J. Grant × Prince C. de Rohan
,, Pierpont Morgan	Tea	May	1895	Sport Mme. Cusin
,, Potter Palmer	H.T.	Poehlmann	1909	Sport Mme. Abel Chatenay
,, Reynolds Hole	Tea	Nabonnand	1900	Archiduc Joseph × André Schwartz
,, Rumsey	H.P.	Rumsey	1897	Sport Mrs. George Dickson
,, Sophia Neate	Tea	Bide	1908	Anna Olivier × Mme. Lambard
,, Stephen Treseder	Tea	Treseder	1901	Sport Anna Olivier
,, Theodore Roosevelt	H.T.	Hill	1902	Seedling La France
,, Ward	H.P.	Ward	1866	Jules Margottin × Mme. Chabrillant
,, W. H. Cutbush	P.P.	Cutbush	1906	Sport Mme. N. Levavasseur
Muriel	H.P.	F. Cant	1902	Sport Suzanne M. Rodocanachi
,, Grahame	Tea	Dingee	1896	Sport Catherine Mermet
Nardy	D.T.	Nabonnand	1888	Seedling Gloire de Dijon
Narrowater	H.Sps.	—	—	Seedling R. Pissardi
Nathalie Bottner	H.T.	Bottner	1909	Frau Karl Druschki × Goldelse
Nellie Johnstone	Tea	G. Paul	1906	Mme. Berkeley × Catherine Mermet
New Century	H.Rug.	W. van Fleet	1891	R. rugosa alba × Clothilde Soupert
Noel Jourdain	Tea	Preslier	1900	Mme. de Watteville × Dr. Grill
Non Plus Ultra	M.S.	Weigand	1904	Crimson Rambler × Blanche Rebatel
Nordlicht	H.T.	Kiese	1910	Caroline Testout × Luciole
Northern Light	H.W.	Conard	1905	Seedling R. wichuraiana
Notaire Bonnefond	H.P.	Liabaud	1868	Seedling General Jacqueminot
Nova Zembla	H.Rug.	Mees	1906	Sport Conrad F. Meyer
Nymphe	Tea	Turke	1910	Mignonette × Maréchal Niel
Oberburgermeister Dr. Trœndlin	H.T.	Kaiser	1904	*See* Dr. Trœndlin
Obergartner F. Jost	H.T.	Geschwindt	1901	La France × Mrs. W. J. Grant
Oberhofgartner A. Singer	H.T	Lambert	1904	Caroline Testout × Marie Baumann
,, Terks	H.T.	Welter	1902	Mrs. W. J. Grant × La France
Oeillet	Pom.	Dupont	1900	Seedling R. centifolia Pomponia
Olympiada	H.T.	Soupert	1903	Mme. Pierre Oger × Mrs. W. J. Grant
Oriflamme de St. Louis	H.P.	—	—	Sport General Jacqueminot
Orleans Rose	P.P.	Levavasseur	1909	Mme. N. Levavasseur × a Polyantha
Oscar Cordel	H.P.	Lambert	1898	Merveille de Lyon × André Schwartz
,, H. Roi de Suede	H.P.	Soupert	1890	Dupuy Jamain × Mme. Victor Verdier
Otto von Bismarck	H.T.	J. C. Schmidt	1908	Caroline Testout × La France
Oxonian	H.P.	Turner	1876	Seedling Victor Verdier

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page 231 of our issue for May 13.*)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Cross-fertilisation of Violets (*A. M.*).—The cross-fertilisation of Violets consists in the transference of the pollen of one flower to the stigma of another, and to effect a cross it is essential that the anthers containing the pollen should be early removed from the proposed seed-bearing flowers, and that these latter be secured against insect or any other fertilising agency, such as wind. In the Violet the more prolific seed-bearers are the cleistogamous or petal-less flowers; and though you have hitherto failed to obtain a cross, it does not follow that non-success will still attend your efforts in the future. New Violets do not, and never have, come in shoals, and as there are many things much more prolific in good results, it is only a question of working and waiting. Should you elect to try the fully-petalled flowers in any future operation, it will be best to remove the petals at an early stage, likewise the anthers, which are very close to the apical portion of the ovary. When approaching maturity the anthers or pollen cases reflex before bursting, when, by the aid of a lens, all will be plain. Plants for the purpose should be pot cultivated and grown naturally. Forced plants are of little service.

Flowers of hardy Azaleas changing colour (*K. C.*).—It is highly probable that some ground fungus is responsible for the mischief, and for which a good dressing of lime a few weeks back would have constituted the best remedy. It is a little unfortunate you did not do more in the matter a year ago when the plants first showed signs of failing, as then, by clearing away the surface soil to a depth of 3 inches and adding fresh loam, the trouble this year might have been avoided. You might, even now, prick in a little lime, though we fear it is too late for any good result. In all the circumstances the better plan will be to wait till autumn and lift the plants. Having given them a good washing and a lime-water bath, replant in a fresh position or in quite fresh soil in the old place. In lifting work deeply, and remember the roots are very easily broken.

THE GREENHOUSE.

Treatment of Aspidistras (*S. E.*).—We cannot advise you to stand the Aspidistras in a tub of water and leave them for so long a period as a month, as in that time the soil would become sour, the roots suffer, and, consequently, the plants would fall into ill-health, from which state it would take considerable time and trouble to restore them. We have before now, when absent from home, stood our Aspidistras in a large bath with a little water for a week or ten days; but though no permanent injury resulted therefrom, the plants had lost their freshness and took some little time to return to their normal state. In leaving your Aspidistras for such a lengthened period, we can suggest no way out of the difficulty except to get someone to attend to their requirements. It is not natural for the lower leaves of the Hydrangea to drop off as the flowers develop, and the fact of their doing so would suggest that the plant is in some

way suffering from lack of nourishment, though an excess of water at the roots would have the same effect.

Treatment of Malmaison Carnations (*J.H.C.*).—Malmaison Carnations differ considerably in their cultural requirements from the Tree or perpetual-flowering kinds. These last are readily increased by cuttings, but for the propagation of the Malmaisons layering is the method generally resorted to. This should be done as soon as the plants go out of flower. They must be layered in frames, so that the lights can be put on in the event of heavy rains, which would soon cause a great deal of damage. The frame must have a sufficient depth of good sandy soil placed therein, into which the old Carnations can be planted. It will, in some cases at least, be necessary to plant them in a sloping position, in order that the shoots can be brought to the ground for layering purposes. For layering the best shoots should be chosen, keeping them securely in position by means of pegs. Of course, each layer must be tongued, as is done in the case of border Carnations. When finished the lights should be put on and raised at the back in order to allow for a supply of air. It will be necessary to shade the lights from the bright sunshine till the layers are rooted, and, of course, the soil must during that period be kept moist. In about a month to six weeks the layer will be sufficiently rooted for potting. For this purpose pots 4 inches in diameter are very suitable. It is most essential that they be clean and effectually drained. A suitable compost may be made up of two parts good loam to one part of leaf-mould, and sufficient coarse sand to keep the soil open. After potting place the plants in an open frame, and shade them from bright sunshine till they have recovered from the check of removal. Some cultivators prefer to put them all into their flowering pots, 6 inches in diameter, before winter, while others pot only the strongest, leaving the others in small pots till February. In any case they need to be wintered in a light, airy structure, from which frost is well excluded. Watering at all times must be carefully done, but it is even of more importance during the winter than at any other time. A structure that is damp during the winter is very unfavourable to the welfare of these Carnations. If aphis or green fly makes its appearance, the plants must be at once vaporised, as these pests soon do considerable damage. When potting into their flowering pots the soil may be rougher than that for the small plants, and it may with advantage contain a rather larger proportion of loam.

ROSE GARDEN.

Polyantha Rose for inspection (*A. D. P.*).—The Rose is Leonie Lamesch, a variety which, though very beautiful and unique in colouring, is yet much prone to produce its flowers malformed. The sort of waxy appearance is caused by aphis, or green fly, and it can be kept down by spraying with some insecticide. Try the Cyllin Soft Soap or Jeyes' Horticultural Wash; both are very effectual.

Sweet Briar foliage for opinion (*W. G. E.*).—The small, plump and smooth-looking straw-coloured creatures on the Rose leaf are aphides, which have each been attacked by an ichneumon fly. The latter lays an egg in the green fly, and the larva which hatches from the egg feeds inside the insect until it is fully grown. At the stage at which you send them the larvæ are just about to pupate, and will soon emerge as tiny four-winged flies ready to attack other green flies. It would be a mistake to destroy any of these little friends.

Moss on Roses (*Dolphin*).—No specimen accompanied your request for information; but judging from the very brief description given, the structures on the leaf of the Rose that "looked like the fructifications of a tiny moss, small heads on very fine stalks," are the eggs of the lacewing fly. They are white, and the stalks by which they are attached to the leaf are about half an inch in length. The fly itself is about half an inch long in the green body and has golden eyes. Its four wings are large, much veined and gauzy. The larvæ feed voraciously upon aphides, and are occasionally called aphis lions.

Fertilisers for Rose trees (*Bungler*). — You need not be alarmed that the heavy application of artificial manure will do any harm if the trees are well established. Such a dose as that given would be injurious to recently-planted Roses. It might be advisable to distribute the soil manured to a little wider area, as some of the ingredients are slow in acting. You would have been well advised to water the soil before applying the manure; but, of course, that cannot be done now. An overdose of manure can always be corrected by applying gypsum if applied soon after the application, but we do not believe in your case it is necessary.

MISCELLANEOUS.

Cherries and Pears dropping (*W. H. A.*).—We do not think any insect or fungus is to blame for the dropping of the Cherry fruits or the young Pears. Examination shows that the seeds of the former began to develop and then suddenly stopped, while the latter seemed perfectly formed. Can it be that the soil became dry at a critical period? That frequently happens with trees on walls and where the subsoil is a gravelly one.

Names of plants.—*F. E. C.*—The only specimen found was an immature piece of Salix, which it was impossible to identify.——*Mrs. C. S. Hanbury*—Campanula lactiflora (typical).——*C. R. Deare.*—Chimonanthus fragrans.——*W. E. P.*—Lavatera trimestris.—*G. S. J.*—1, Luzula pilosa; 2, Galium verum; 3, Barbarea vulgaris; 4, Lapsana communis; 5, Anagallis arvensis; 6, Prunella vulgaris.——*N. A. P., Croydon.*—The common Club-moss, Lycopodium clavatum.

SOCIETIES

NATIONAL SWEET PEA SOCIETY.

THE annual exhibition arranged by the National Sweet Pea Society was held in the Royal Horticultural Hall, Vincent Square, Westminster, on the 11th and 12th inst., and, as usual, proved exceedingly popular. Although in most of the trade groups the flowers were rather smaller than usual, the colours were exceptionally good, and in the competitive classes the flowers were almost, if not quite, up to the usual high standard. The arrangements were all that could be desired.

NON-COMPETITIVE EXHIBITS.

Messrs. Dobbie and Co., Edinburgh, staged a grand lot of blooms. The new variety Lady Knox, cream, suffused and edged with apricot, was shown in good form. So also were Melba (orange), Mrs. Heslington (mauve), Edrom Beauty and John Ingman. The centre-piece of this display was occupied by a charming pale yellow variety known as Dobbie's Cream. This exhibit was admirably set up, and impressed all the visitors by its wealth of colour. Gold medal.

A truly magnificent display was shown by Messrs. Sutton and Sons, Reading. Perhaps the best varieties were Doris Usher and Sutton's Queen. The colours were, on the whole, beautifully arranged in harmony and in contrast. The scarlet variety The King did not, however, show to advantage against a pink background. We were pleased to see such beautiful varieties as Princess Victoria, Nettie Jenkins and Elsie Herbert shown in good form. Silver-gilt medal.

Messrs. E. W. King and Co., Coggeshall, were again to the fore with a brilliant display, such as is usual from this well-known firm. The vases of cut flowers were overhung by an archway of Sweet Peas arranged in a most effective manner. The varieties Queen Mary, Anglian Orange and Anglian Pink were shown in grand form. Silver medal.

Messrs. Carter and Co., Raynes Park, were represented by a magnificent collection of the leading varieties. The vases of Edna Unwin and Dazzler (of similar shade) were two of the brightest and best varieties. This exhibit was especially meritorious owing to the attractive way in which it was arranged. Gold medal.

Very bright and effective was the display shown by Robert Sydenham, Limited, Birmingham. Orange and scarlet shades were prominent in this exhibit, and a new variety, Scarlet Emperor, was greatly admired for its deep rich colour. All of the flowers were arranged in silver rustic vases, which show Sweet Peas and other flowers to the best advantage. Gold medal.

Mr. Robert Bolton, Warton, Carnforth, was well to the fore with a magnificent lot. His blues were remarkably fine, especially Florence Nightingale, Zephyr and Afterglow, while the orange shades of Stirling Stent and Earl Spencer were to be seen without a blemish. Large gold medal.

Messrs. Carter Page and Co., London Wall, showed many popular varieties in good condition. Among the best were Elsie Herbert, King Edward Spencer, George Herbert and Countess Spencer. Silver medal.

Mr. J. Stevenson, Wimborne, had a nice lot of varieties arranged to the very best advantage. Two of the best were Mrs. H. Dickson and Marjorie Stevenson. Silver medal.

Messrs. Jones and Sons, Limited, Shrewsbury, had a representative collection of leading varieties. The exhibit was nicely arranged, but the recent hot weather had robbed some of the best blooms of their colour. Silver medal.

A very creditable display was put up by Mr. James Box, Lindfield. The foreground was taken up by three arches, the background and groundwork being filled in with splendid vases of cut blooms. No pains had been spared to create a good effect, and the exhibit came in for general admiration. Silver-gilt medal.

Mr. W. E. Alsen, Denmead, Hants, who has been showing Sweet Peas in exceptionally good form this year, again put up a good exhibit notable for its rich tones of colour. Silver medal.

Mr. W. O. Cantley, Bury St. Edmunds, also had a very fine lot, in which the orange shades of Stirling Stent and Orange King were very good. The variety Nancy Perkin had, however, suffered badly from the effects of the sun. Bronze medal.

Messrs. S. Bide and Sons, Limited, staged a truly grand lot. A new mauve variety named Bertha Massey occupied a prominent position in this collection, and the handsome variety Orange King was shown in tip-top form and in plenty. Silver-gilt medal.

Mr. Alfred Edwards, Fordham, Cambs, had some first-rate vases of such varieties as Constance Oliver, Masterpiece, Ethel Roosevelt and Maud Holmes. The flowers were all shown on long stalks, and the colours were well preserved.

Messrs. W. Lumley and Co., Hayling Island, Hants, staged a very neat lot of good exhibition blooms. The quality of the flowers and richness of colour left little to be desired. A maroon variety, Enid Damerum, and the better-known Constance Oliver were two varieties that came in for general admiration. Bronze medal.

Messrs. Aldersey and Marsden Jones, Tilston, Malpas, Cheshire, had a nice lot, many of which were raised by this new firm. In the centre was a large vase of Tortoise-shell, pale orange. This variety will not be available till the autumn of 1912. Bronze medal.

Messrs. Jarman and Co., Chard, had an exhibit of blooms remarkable for their size and quality. Their delicate-coloured variety, Mrs. Townsend, was shown in plenty. Bronze medal.

Mr. William Deal, Brooklands, Kelvedon, Essex, showed a fine collection, many of which had been raised at Kelvedon. Among the best were Colleen, Scarlet Monarch and Juliet. Silver-gilt medal.

Messrs. G. Stark and Son, Great Ryburgh, Norfolk, had a brilliant display, comprising the leading varieties that are in commerce. Premier (rich crimson) and a new seedling after the style of Evelyn Hemus were two prominent varieties. Silver medal.

Mr. Breadmore, Winchester, had a nice lot. His best varieties were Miriam Beaver, Tennant Spencer and Dusky Monarch. Silver medal.

Mr. P. E. Colman, Elsenham, Essex, showed a beautiful lot of up-to-date varieties. This exhibit contained a splendid vase of that brilliant orange scarlet, Edna Unwin.

COMPETITIVE CLASSES.

The Sutton Cup class for twenty-one bunches, distinct, to be selected from varieties recommended by the floral committee, was won by that successful exhibitor, Mr. A. E. Usher, gardener to Sir Randolf L. Baker, Bart., Ranston, Blandford. There was little to choose between the twenty-one vases shown by Mr. Usher. Possibly his best were Masterpiece, Edna Unwin and Princess Victoria. Second, A. W. Stirling, Esq., Holme Lea, Goring-on-Thames (gardener, Mr. A. Moring); third, Sir Thomas Hesketh, Bart., Easton Neston, Towcester (gardener, Mr. G. F. Hallett). The first prize carried with it the society's gold medal, and the second prize a silver medal.

The class for twenty-four bunches, distinct, was likewise won by Sir Randolf L. Baker, Bart. The runners-up were J. T. Tubb, Esq., Sevenoaks, and the Right Hon. Sir G. O. Trevelyan, Bart., Wallington Hall, Cambs (gardener, Mr. E. Keith). This was one of the most interesting contests of all, there being no fewer than seven very keen competitors.

The Henry Eckford Memorial Class, for twelve bunches, distinct, always brings a keen fight for the premier place, and this year was no exception to the rule. After careful consideration the judges awarded first place to the renowned Mr. Thomas Stevenson, gardener to E. G. Mocatta, Esq., Woburn Place, Addlestone. This was a magnificent lot, the varieties shown being Anglian Blue, Maud Holmes, Evelyn Hemus, Thomas Stevenson, Elsie Herbert, Queen of Norway, Clara Curtis, Helen Grosvenor, Nubian, Marjorie Linzee, Princess Victoria and Anglian Pink. Second, Sir Randolf L. Baker, Bart., with a superb collection—a very close second; third, A. W. Stirling, Esq. The first prize included a gold medal, and the second prize a silver medal.

The special class for the Coronation Cup was won by Mr. E. Cowdy, Grunhall, Loughgall, County Armagh. Most of the flowers in this exhibit were in fours, and the blooms looked none the worse for their journey from Ireland. Second, Mr. Thomas Jones, Ruabon; third, R. P. Brook, Esq., Par Station; fourth, E. G. Mocatta, Esq. This was a well-contested class, in which leading exhibitors were brought into competition.

The Breadmore Challenge Plate and silver-gilt medal, for twelve bunches, were also won by Mr. E. Cowdy, and these Irish Sweet Peas caused excitement among English growers. The flowers were of grand colour and substance, the result of good cultivation and most careful packing. Second, R. P. Brook, Esq.

R. P. Brook, Esq., secured the first place for six bunches, distinct, with a magnificent lot, his blooms of Mrs. Charles Foster and Doris Burt being remarkably fine. Second, W. H. Rawnsley, Esq., Alford; third, Sir Randolf L. Baker, Bart.; fourth, Mrs. F. E. Hall, Redbourn.

R. P. Brook, Esq., was first for three bunches of pink or cream pink varieties, showing Constance Oliver, Countess Spencer and Mrs. Henry Bell; second, E. G. Mocatta, Esq.

Dr. J. E. Phillips, Malpas, gained first place for three bunches of new Sweet Peas with Lancashire, Mrs. R. Hallam and Charles Foster; second, R. P. Brook, Esq.

Sir Randolf Baker, Bart., secured first place for twenty-one varieties, not more than one variety of any colour given in the Classification List; second, Mr. H. D. Tigwell, Greenford.

In a class for twelve bunches, distinct, F. G. Bealing, Esq., Bassett, secured the premier award; second, E. Otter, Esq., Greenford; third, Messrs. E. W. King and Co.

For one bunch of one new variety only, E. G. Mocatta, Esq., secured first place with the mauve variety Bertha Massey.

For one bunch of two varieties, R. P. Brook, Esq., was first, showing Paradise Ivory and Nancy Perkin in perfect harmony.

The E. W. King Challenge Cup brought numerous competitors into friendly rivalry. It was won by R. P. Brook, Esq., with an admirable dozen bunches; second, W. H. Rawnsley, Esq.

For twelve bunches of Sweet Peas, to be selected from given varieties, Sir Randolf Baker, Bart., came first with a fine selection; second, M. Y. Green, Esq., Eynsford.

Sir Randolf Baker, Bart., also gained first place for seven bunches of American Sweet Peas.

Class 20, for six bunches, distinct, to be selected from given varieties, fell to the lot of the able exhibitor Mr. Thomas Jones, Ruabon. His varieties were Masterpiece, Audrey Crier, Isabel Malcolm, Edrom Beauty, Romani Rauni and Sunproof Crimson; second, Dr. J. E. Phillips; third, A. L. F. Cook, Esq., Iver, Bucks.

Mr. W. J. Unwin's prize for six bunches was won by Sir Randolf Baker, Bart., with handsome vases of Mrs. Unwin, Clara Curtis, Mrs. R. Hallam, Eric Harvey, Gladys Burt and Nora Unwin; second, Mr. Thomas Jones.

The silver plate offered by Commander Humphery, R.N., for six bunches, was won by Mr. J. Beach, Hounsmonden; second, Mr. L. R. Avery, Ramsey, Hants.

The Hawlmark Challenge Cup for twelve bunches, distinct, was won by Mr. James Hall, Moy, County Tyrone,

for a good exhibit of perfect flowers; second, Mr. H. H. Lees, Warblington, Hants.

Mr. H. H. Lees secured the first place for three bunches distinct, with Tom Bolton, Edna Unwin and Mrs. Hugh Dickson.

The Horace Wright Challenge Cup was secured by Mr. C. R. Jaggs, Hertford Heath, Herts, for twelve bunches, distinct; second, Mr. F. Green, Southampton; third, Mr. L. C. B. Hockin, Guildford.

The Walter Voss Challenge Cup was won by Mr. L. S. Peters, St. Austell; second, Mr. E. Waterman, Seal.

For six bunches, distinct, Mr. W. H. Holloway, Shrewsbury, gained the first place after a very keen contest.

DECORATIVE CLASSES.

There were ten entries in the class for a single epergne, the winner being found in Mrs. W. Maslin, who had an arrangement of orange and cream coloured Sweet Peas, daintily set up with Asparagus Fern and Grasses in an artistic way. Second prize was won by Mrs. Arnold Hitchcock, Brook House, Tiptree, with a small, beautiful design, cream and orange coloured Sweet Peas again being used effectively. An arch charmingly dressed with pink blossoms and appropriate foliage won third prize for Mrs. A. D. Ruff, Sharnbrook, Beds; and fourth prize was awarded to Mrs. M. E. Jones, Coton Hill Nursery, Shrewsbury.

Of the eleven vases of Sweet Peas, a magnificent exhibit won first prize for Miss M. E. Jones, who disposed her beautiful flowers of fine quality most attractively. Second prize was won by Mrs. H. V. Vokes, Horsted, Woking, who had a grand exhibit that needed more colour. Third prize went to Mrs. F. G. Bealing, Jesmond Dene, Bassett, with a lovely arrangement of colour; and fourth prize was awarded to Mrs. G. Leigh Spencer, The Priory, Clifford.

The button-holes and sprays were poor. First prize was won by Mrs. Arnold Hitchocok, who was a good first. Second prize was secured by Miss M. E. Jones; and third prize was awarded to Mrs. F. Brown, Sett House, Stoney Stanton.

There was a fine array of decorated tables, first prize deservedly going to Mrs. Alex. Robinson, Park Hill, Carshalton, whose flowers and foliage were very deftly and artistically disposed. There was rather too much foliage, however, to please most people. Quite distinct from the leader's exhibit was the second prize table. Salmon pink and cream coloured flowers were used in charming association, and with dainty foliage the effect was beautiful. Third prize was awarded to Mrs. F. G. Bealing, who had a very light and artistically-arranged table, on which both flowers and foliage were well balanced. A good table decoration won fourth prize for Mrs. Arnold Hitchcock, whose colour association was the most beautiful of all. There were fourteen tables in this competition.

NEW VARIETIES.

First-class Certificates.—Barbara, orange, shown by Mr. Robert Holmes, Norwich; and Dobbie's Thomas Stevenson, orange scarlet, shown by Messrs. Dobbie and Co., Edinburgh.

Awards of Merit.—Red Star, deep crimson, shown by Mr. A. Malcolm, Duns; May Campbell, cream, suffused and splashed red, and Mauve Queen, mauve (these two were shown by Messrs. Dobbie and Co.); F. Seymour Davis, rosy pink, shown by Mr. F. Seymour Davis, Farnham; and Mrs. B. Gilbert, white, suffused pale purple, shown by Messrs. Gilbert and Son, Dyke.

THE DINNER.

A dinner to the judges and committee was held at the Hotel Windsor on the evening of the first day of the exhibition. Robert Sydenham, Esq., presided, and among the visitors present were Miss Townsend, Messrs. Atlee Burpee (Philadelphia), Pattison (Victoria) and Schoetell and Hullieu (representing Messrs. Vilmorin, Paris). The toast, "The Continued Prosperity of the National Sweet Pea Society," was proposed by the president for the evening, and responded to by Mr. Hugh Dickson, who made a passing reference to the success of Irish exhibitors on that day. The toast of "Our Guests" was proposed by Mr. W. P. Wright in felicitous terms.

WOLVERHAMPTON FLORAL FETE.

THE twenty-third exhibition of this most up-to-date and prosperous horticultural society took place in the beautiful West Park, Wolverhampton, on Tuesday, July 11, fortunately under ideal conditions. The day was gloriously fine, and the park and flower gardens were looking their best. As for the show itself, it is safe to say that it ranks with the best of the series which had gone before it. The gentlemen comprising the committee of management always turn up smiling on the morning of the show, let the weather be what it may, being conscious, no doubt, of having done their level best for the show and for all associated with it, and also by the comforting knowledge that they have the wherewithal at their back—at the bank—in case of a rainy day.

Plants, Roses and cut flowers are the important features of this great exhibition, the place of honour being reserved for groups of plants arranged for effect. There were four of these shown, and the wonder is there were not more considering the handsome prizes offered—first, £40; second, £30; third, £20; fourth, £10. Among the groups shown, the second, third and fourth called for no special mention, but the first-prize group, shown by Messrs. J. Cypher and Sons was one of the best we have seen. Not only were the individual plants superbly grown and the species and varieties numerous and of the choicest, but the great charm of the group lay in the masterly and artistic way in which the plants were arranged and disposed. We should much like to analyse and lay bare before readers the material of which it was composed and the artistic way in which the plants were put together; but the limit of space forbids this. The plants chiefly represented were Palms, Bamboos, Crotons in great variety, faultlessly grown and in gorgeous colours; Ixoras, Caladiums, Gloxinias, Orchids in great variety, including Oncidiums, Cattleyas and Phalænopsis, the old Humea elegans and many others. The second prize went to Sir George H. Kenrick, Edgbaston, Birmingham (gardener, Mr. Macdonald); third, Mr. W. A. Holmes, Chesterfield; fourth, Mr. W. Vause, Leamington.

Another important plant class was that for a group consisting of foliage plants alone, the first prize of £25 going to Messrs. Cypher; second (£20), Mr. W. A. Holmes; third (£12 10s.), Sir G. H. Kenrick; fourth (£7 10s.), Mr. W. Vause.

Next to these groups of plants in interest and attractiveness came the rock and water garden class (a class, we believe, first instituted by this society), of which there were three examples, the first prize of £20 falling to Messrs. Backhouse and Son, York; second, Mr. Knight of Wolverhampton; and third, Messrs. W. Artindale of Sheffield. This aspect of outdoor gardening seemed to appeal most strongly to the vast number of people who visited the show, judging by the crowds who assembled round the exhibits all day.

Another good class is that for twenty plants in pots not to exceed 8 inches in diameter, eight at least of the specimens to be in bloom. This is a useful class for the encouragement of specimen plant-growing, of which there are too few in these days. Messrs. Cypher and Sons were an easy first with splendidly-grown specimens of Crotons, Ixoras, Acalyphas, Clerodendrons, &c.; second, B. H. Maunder, Esq., Wolverhampton (gardener, Mr. C. Weaver).

A very attractive class is that devoted to one species of flowering plant only, to cover a ground space of 50 square feet. The first prize of £10 was won by Messrs. Blackmore and Langdon of Bath with a superb collection of tuberous-rooted Begonias, all named; second, Mr. F. Davis, a successful amateur grower from Pershore, Worcester; third, Messrs. J. Cypher and Sons, for Clerodendrons.

In the amateur class for groups of plants in or out of bloom, to fill a space of 250 square feet, J. A. Kenrick, Esq., of Edgbaston (gardener, Mr. Cryer), was placed first; second, Mr. W. R. Manning, Dudley.

Roses.—Originally this show was started more as a Rose than as a general show, and that preference is still maintained for the Queen of Flowers. In the premier class for seventy-two varieties, distinct, Mr. Hugh Dickson of Belfast was first; second, Messrs. Harkness and Co. of Hitchin; third, Mr. George Prince of Oxford; fourth, Messrs. Perkins and Sons, Coventry.

In the class for forty-eight varieties, Mr. Hugh Dickson was again the champion; second, Mr. J. Mattock, Oxford; third, Messrs. Harkness and Co.

The same Belfast firm was again first for twelve varieties of new Roses introduced into commerce during the years 1908, 1909 and 1910.

In the classes for bouquets and cut flowers, Messrs. Perkins and Sons, Coventry, were first for a hand bouquet and also for a bridal bouquet.

To the table decorations a large tent was devoted, which was well filled with most charmingly-decorated tables. Competition in many classes was very keen, the premier prize going to Miss A. Davis of Pershore.

In the class for dinner-tables, decorated with Sweet Peas alone, there were eight exhibits, Miss F. Jenks of Codsall being first.

Sweet Peas.—These were strongly in evidence, the first prize for eighteen varieties going to Sir R. L. Baker, Bart., M.P. (gardener, Mr. Usher).

The prizes offered by Messrs. Eckford for twelve varieties were won by Mr. J. Watson, Wem, Salop, and Mrs. Twentyman, Wolverhampton, in the order named.

Mrs. W. D. T. Richards was the fortunate winner of the first prize offered by Robert Sydenham, Limited, for twelve varieties.

Fruit.—This is not a strong element at the Wolverhampton Show; nevertheless, there were some splendid examples of good culture to be seen.

In the class for four bunches of Grapes there was good competition, J. Drake, Esq., of Orford House, Market Rasen (gardener, Mr. Parker), being first.

In the class for ten dishes (not fewer than seven kinds) the Duke of Newcastle (gardener, Mr. Barker) was first; second, J. Drake, Esq.

In the class for fruit trees in pots, The King's Acre Nursery Company were the only exhibitors and secured the first prize of £20, as well as an extra prize of £5 given by Alderman Craddock.

Vegetables.—These were not numerously shown, but from the Duke of Portland came an excellent collection.

Cottagers' Exhibits.—The tent devoted to these was full of exhibits consisting of hardy fruit and vegetables in season, as well as a beautiful and large display of window plants and cut flowers.

Flowers for Certificates.—Several were presented, but only one was noticed, namely, a beautiful lavender-coloured variety of Delphinium from Mr. A. Perry of Enfield, named Carnegie. First-class certificate.

Honorary Exhibits.—Among the best of these was a large group of Carnations, beautifully arranged, and composed of splendidly-grown plants in rich variety. They were sent by the Lady Grey of Exville Hall, Stourbridge; a gold medal was awarded. To Mr. Ladhams of Shirley, Southampton, was awarded a silver-gilt medal for a pretty collection of hardy flowers. Messrs. Dickson, Limited, of Chester, exhibited a large collection of hardy herbaceous flowers and Roses, to which a gold medal was awarded. To Mr. H. N. Ellison of West Bromwich a silver-gilt medal was awarded for an interesting group of Ferns. Messrs. Jarman and Co. were awarded a silver medal for an interesting collection of Zonal Geraniums, Carnations and Centaureas.

For an excellent collection of Roses, Messrs. Clibran of Altrincham were awarded a silver-gilt medal. For a grand stand of Melons and vegetables decorated with flowering plants and cut flowers, Messrs. Webb and Sons of Wordsley received a gold medal. From Messrs. H. B. May and Sons came a most interesting exhibit of Ferns; gold medal.

Messrs. Baker of Wolverhampton had a novel, original and interesting exhibit in the way of an old-world Rose garden, a pond garden with Water Lilies, and a sort of bog garden planted with many interesting and beautiful moisture-loving plants. This was one of the most admired and interesting exhibits in the show; gold medal and a special piece of plate. Messrs. Blackmore and Langdon were given a silver medal for Carnations, and a similar award went to Mr. J. E. Knight of Wolverhampton for floral designs.

REIGATE ROSE AND SWEET PEA ASSOCIATION.

THE sixth annual exhibition took place on Saturday, July 1, at The Barons, by kind permission of the president, E. H. Johnstone, Esq. Roses and Sweet Peas each had separate tents allotted to them. Taken generally, the classes were well filled and competition was keen.

OPEN TO NURSERYMEN.

For forty-eight distinct varieties of Roses, a silver challenge cup and first prize fell to Messrs. B. R. Cant and Sons, Colchester, whose stand contained beautiful blooms of J. B. Clark, Ben Cant, Claudius, Lyon, C. J. Grahame, William Shean, Mrs. Dudley Cross, Frau Karl Druschki, Her Majesty, Hugh Dickson and Maman Cochet. Messrs. D. Prior and Sons, Colchester, were second.

For twenty-four distinct varieties of Roses, Mr. Henry Drew, Longworth, Berks, was first, showing excellent blooms of Avoca, George Laing Paul, White Maman Cochet, Duc de Rohan, J. B. Clark, Frau Karl Druschki and A. K. Williams; second, Messrs. G. and W. H. Burch, Peterborough; third, Messrs. W. Spooner and Sons, Woking.

For eighteen distinct varieties, Teas or Noisettes, Mr. Henry Drew was again first, using Medea, Golden Gate, Mrs. E. Mawley, Mme. Constant Soupert, Mme. Jules Gravereaux and Dr. Felix Guyon; second, Messrs. B. R. Cant and Sons; third, Messrs. F. Cant and Co.

For twelve bunches of garden Roses, first prize went to Messrs. Frank Cant and Co. for noticeable bunches of Alister Stella Gray, Mme. Plantier, Grüss an Teplitz, Gardenia, Rouge Angevine and Débutante; second, Messrs. George Jackman and Son, Woking; third, Messrs. W. Spooner and Sons.

OPEN TO ALL AMATEUR SUBSCRIBERS.

For twenty-four distinct varieties, the challenge cup went to Alfred Tate, Esq., for nice blooms of White Maman Cochet, J. B. Clark, Florence Pemberton, Frau Karl Druschki, Mrs. Isabelle Milner, Dupuy Jamain and Francois Michelon; second, Mr. E. M. Eversfield.

For eighteen distinct varieties (open to those growing less than 2,000 plants), the challenge cup and first prize were won by W. R. Hammond, Esq.; second, H. Robins, Esq.; third, Mr. F. Slaughter.

For eight distinct varieties, three trusses of each, first prize went to Alfred Tate, Esq., with J. B. Clark, Dean Hole, Florence Pemberton and Mrs. Theodore Roosevelt; second, Mr. E. M. Eversfield, whose collection contained a bloom of Maman Cochet which received a silver medal as the best bloom in the division; third, W. R. Hammond, Esq.

For twelve distinct varieties (open to growers of less than 1,000 plants), the challenge cup went to E. B. Lehmann, Esq., who staged Avoca (silver medal for being the best bloom), J. B. Clark, Hugh Dickson, C. J. Grahame and Mrs. S. Clark; second, Mr. A. C. Turner.

Nine distinct varieties (open to growers of less than 300 plants): First and challenge cup, Allan Searle, Esq.; second, A. M. Darling, Esq.; third, P. F. Davies, Esq.

SWEET PEAS.—OPEN TO ALL ENGLAND.

For twelve bunches of Sweet Peas, distinct varieties, the challenge cup and first prize went to F. G. Bealing, Esq., for a beautiful collection including Helen Lewis, King Edward, Evelyn Hemus, Tennant Spencer, Elsie Herbert, Clara Curtis, Masterpiece, Miriam Beaver, Mrs. H. Sykes and Othello Spencer; second, E. Mocatta, Esq.

Six bunches of Sweet Peas: First, Sir R. Baker, Bart., with I. Malcolm, J. Ingman, Mrs. H. Dickson, Helen Grosvenor and Mrs. C. W. Breadmore; second, Alfred F. Blades, Esq.; third, E. Mocatta, Esq.

Two bunches of white: First, W. E. Alsen, Esq., with Etta Dyke and Moneymaker; second, E. Mocatta, Esq., with Nora Unwin and Freda.

Two bunches of scarlet or crimson: First, E. Mocatta, Esq., using Doris Burt and Maud Holmes; second, Sir R. Baker, Bart., with Sunproof Crimson and Premier.

Two bunches of orange: First, F. G. Bealing, Esq., with Earl Spencer and Helen Lewis; second, Sir R. Baker, with Earl Spencer and Edrom Beauty.

Two bunches of pink: First, Sir R. Baker, with Audrey Crier and Elfrida Pearson; second, J. F. Tubb, Esq.

TRADE EXHIBITS

included a magnificent display of Roses by Mr. Elisha J. Hicks, Twyford, Berks, for which an award of a silver cup was given; Mr. James Box, Lindfield, a magnificent display of Sweet Peas, Gladioli, English Irises and Violas; and Messrs. J. Cheal and Sons, Messrs. Wells and Co., Merstham, Messrs. George Jackman and Sons, Woking, and The Guildford Hardy Plant Company all had good displays of seasonable flowers, adding greatly to the attraction and success of the show.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE WATER-SIDE GARDEN.

THE margins of streams and lakes, when furnished with suitable British and exotic plants, are a never-ceasing source of enjoyment to the gardening enthusiast, while the lover of Nature finds the same pleasure from the many wild plants which fringe our lakes, rivers, streams and ponds. At the present moment several showy plants are at their best. Close to the water's edge the Purple Loosestrife (Lythrum Salicaria) is covered with purplish flowers, while its variety rosea is equally beautiful by reason of its rose-coloured blooms. Higher on the bank, but near enough for its flowers to be reflected in the water, Epilobium angustifolium may often be found, forming a showy mass 3 feet or 4 feet high, each stem terminating with a long spike of rose-coloured blossoms. In marshy places Mimulus luteus is a mass of golden flowers, while its many parti-coloured varieties may sometimes be met with under similar conditions.

In marshy ground the various Sundews form interesting patches. The round leaves of Drosera rotundifolia and the long, narrow leaves of D. longifolia are covered with viscid reddish hairs, which make the small plants conspicuous. Small purplish flowers, rising 1 inch or 2 inches above the ground, direct attention to Pinguicula vulgaris, sometimes called the Bog Violet; while here and there its larger-growing relative, P. grandiflora, may have been introduced. The pale green, sticky leaves of both species will be found to be covered with tiny flies. In a few gardens one or two of the Californian Pitcher Plants (Sarracenias) may be found in good health. S. purpurea is the hardiest kind, but S. flava and S. psittacina may also be tried. Two British plants in the Meadow-sweet, Spiræa Ulmaria, and Lysimachia vulgaris may be met with in many places. The fragrant cream-coloured flowers of the former and the golden blooms of the latter are very pretty. Where Typha latifolia and T. angustifolia are present, a pleasing feature is made by their long, arching, Flag-like leaves and dark brown, cylindrical heads of fruits. A fitting companion for these plants is found in the Indian Rice (Zizania aquatica). Growing to a height of from 8 feet to 12 feet, this showy Grass bears long, wide leaves and large plume-like heads of flowers. It must be planted in such a position that the bases of the stems will be covered continuously with a few inches of water. Unfortunately, it cannot be kept from year to year unless seeds are gathered and kept in water throughout the winter to sow in spring.

Gunnera manicata always commands respect by reason of its gigantic Rhubarb-like leaves. These may be anything from 6 feet to 10 feet high and from 6 feet to 11 feet across the blades. One sometimes sees it with disfigured leaves, owing to injury from late spring frosts. In places which are liable to late frosts, it is therefore advisable to protect the leaves at night while they are young and tender, say, until the end of May. The margins of ponds in some Cornish gardens are planted with Richardia africana, which makes a very showy and quite unique feature. Such plantations are renowned for their large, healthy foliage and free-flowering qualities, the white spathes being particularly fine and showy. Further North the foliage of the larger-growing Arrow-heads or Sagittarias is responsible for a similar effect. The common S. sagittifolia, however, is apt to cause trouble, for it grows out into the water and increases at a very rapid rate. For ornamental gardening the kind called S. variabilis flore pleno or S. japonica flore-pleno is the best. The Marsh Calla (Calla palustris) is a prostrate-growing plant of interesting appearance suitable for planting in a position where the ground is perpetually damp.

Here and there in the Southern Counties one sometimes finds the pretty blue-flowered Eichorneas azurea and speciosa growing partly in and partly out of the water. They are very interesting by reason of their curiously swollen leaf-stalks. A showy, tall-growing British plant may be noticed in the Flowering Rush (Butomus umbellatus), while another pretty native is the Buck or Bog Bean (Menyanthes trifoliata). The Giant Dock is often conspicuous about the margins of ponds; its most showy period occurs in autumn, however, for then the leaves colour finely. A few weeks ago Iris lævigata and I. sibirica were very beautiful, to say nothing of our native Iris, which is best known by the name of Yellow Flag. Of late years China has added to our water-side plants by providing a number of showy Senecios. Of these one of the best is S. Clivorum. It is characterised

by large, rounded leaves, which stand from 2 feet to 2½ feet above the ground, and by strong inflorescences of orange-coloured flowers. The most satisfactory results are obtained when the roots are in water or in ground which is constantly moist. It has a long flowering period during late summer and early autumn. Rodgersia is another genus which provides several handsome Chinese species for the water-side.

When the Pampas Grass is planted near water it is always effective, and the same thing may be said regarding the variegated form of Phragmites communis. Trees of the Weeping Willow class always command respect when seen in connection with water. As a contrast to them we have the fastigiate, deciduous Cypress (Taxodium distichum), which is effective, while bush Willows may be happily placed here and there. Showy groups are sometimes formed about the banks of lakes by planting clumps of rambling Roses. These are often very pretty, especially when the colour is reflected in the water. The double-flowered Rubus ulmifolius may be used in the same way, as may also Berberis stenophylla and the various strong-growing Diervillas. Coloured foliaged shrubs are sometimes planted in groups for colour effect about the margins of lakes; they, however, need careful placing, or they may look out of keeping with the general features of the landscape. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 1.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

Auguse 2.—Chesterfield Horticultural Society's Show.

August 3.—Madresfield Agricultural and Horticultural Show. Royal Lancashire Agricultural Society's Show at Bury (four days).

August 4.—Killarney Sweet Pea Show.

The Development Fund and horticulture.—The Report of the Commissioners appointed by Royal Warrant under the Development Fund Act was issued as a Parliamentary paper on the 17th inst., and contains much of interest to those engaged in horticultural work. Although horticulture is not specifically referred to in the Report, agriculture comes in for a large share of attention, and many of the investigations to be carried out under this heading will apply with equal force to horticulture. Roughly, the amount to be devoted to agricultural research and education, if approved by the Treasury, will be: For England and Wales, £105,000 per annum; Scotland, a lump sum of £60,000 and £5,000 per annum; and Ireland, £9,000 per annum. In considering an application made by the Board of Agriculture and Fisheries for an advance of £50,000 per annum for the organisation of a system to aid and develop agriculture by stated methods, the Commissioners decided to recommend, among other grants, £4,000 to be paid to the Cambridge University for research work; £210 to the Leeds University for investigations of atmospheric impurities; £350 to the Wye College for, among other purposes, the mycological and entomological departments; £190 to the Harper Adams College for research in "finger-and-toe" and "wart" diseases; £2,000 to The Incorporated Society for Extending the Rothamsted Experiments; and £600 to the Woburn Experimental Station. We may fairly assume that all these will eventually have at least an indirect bearing on horticulture. In addition, the Commissioners recommend liberal grants for the teaching of forestry and the establishment of a school of forestry in Scotland. In our issue dated April 5 we had reason to refer to the multiplicity of experiments already being conducted, and it is to be hoped that, with the expenditure of the large sums recommended by the Commissioners, results worthy of the amounts and suitable for adaptation by practical horticulturists will be secured.

School of Horticulture at Wisley.—The value of the Royal Horticultural Society's School of Horticulture at the Wisley Gardens, Surrey, as a centre for training young men in scientific and practical horticulture is widely recognised. The next two years' course will commence on September 25. There are now but six vacant seats, and intending students are therefore requested to communicate with the Secretary of the Society, Royal Horticultural Society's Hall, Vincent Square, Westminster, S.W., as early as possible. Young men between sixteen and twenty-two years of age are eligible, The only payment to the society is five guineas for entrance, and students provide their own lodgment in the cottages of the adjoining villages.—W. WILKS, *Secretary*.

East Anglian Horticultural Club.—At the Boar's Head Hotel, Norwich, on the 12th inst., this club had a very interesting evening with the Sweet Pea. There was an essay competition upon its cultivation, and general and special prizes were given for cut blooms. Mr. W. Laws, gardener to G. E. White, Esq., Eaton House, exhibited a spray of Etta Dyke with six perfect flowers, and one of Maud Holmes with five double standard flowers. Mr. F. Williams, gardener to Louis Tillett, Esq., Catton, had the boldest and freshest flowers, and secured the two first prizes in the classes he entered. Mr. F. Willey, gardener to F. A. Bainbridge, Esq., Hethersett, won the first prize given by Messrs. G. Stark and Son for four of their novelties. The essay competition proved a great success. Five papers were read and proved thoroughly practical, and before the winners were made known an animated discussion took place. The three winners were as follows and in the order named: C. Matthews, Mundesley; W. Laws, Eaton; and J. F. Ewing, Evington Place. There were keen competitions in other sections, such as Roses, culinary Peas, Tomatoes, Stocks and Lettuce. Mr. H. J. Clayton of Yorkshire, who was spending a holiday in the district, was a visitor to the meeting, and congratulated the members upon their interest in such a flourishing club. Permission has been given the club to have its summer outing to Sandringham on August 31, and a great day is being looked forward to by the members.

The Horticultural Club outing.—The annual outing in connection with the above club was held on Friday, the 21st inst., when seventy-five members and friends visited Friar Park, Henley-on-Thames, by kind invitation of Sir Frank Crisp, vice-president of the club. The party left Paddington in the morning and journeyed by train to Reading, where they were met by a representative of Messrs. Sutton and Sons, who conducted them to the river-side, where a steam launch, kindly provided by Sir Frank Crisp, was waiting. By launch the party then proceeded to Henley, where they were entertained at lunch by Sir Frank Crisp. In the afternoon the interesting, and in many respects unique, gardens at Friar Park were inspected, after which the majority of those present journeyed by steam launch to Marlow, where tea was partaken of. Subsequently a tired but happy party left Marlow by train for London, after enjoying a somewhat strenuous but happy outing.

The Queen and the Scottish Horticultural Association.—Her Majesty the Queen has graciously accepted a basket of Roses from the president and council of the Scottish Horticultural Association. This was sent to Holyrood Palace on the morning of July 20. The Roses were grown in the Royal nursery of Messrs. Dickson and Co., Craigmillar, Edinburgh, and were arranged in a most tasteful manner by Mr. Thomas Fortune, florist. Her Majesty commanded a note of thanks to be sent to Mr. A. D. Richardson, the secretary of the association, expressing her "pleasure with the flowers, and her deep sense of appreciation of, and grateful thanks for, their kind and charming gift."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet-scented Roses.—At the Rose show held recently in connection with the Festival of Empire, the following Roses secured the gold medal offered for twelve vases of sweetly-perfumed Roses: François Michelon, La France, Robin Lyth, Ulrich Brunner, Leopold Hausberg, Augustine Guinoisseau, Zepherin Drouhin, Viscountess Folkestone, Earl of Dufferin, Marie Pavic, Prince Arthur and Gladys Harkness.—WILL TAYLER.

A Leeds College Professor and Potatoes.—I am somewhat surprised at the apparent little notice taken of your correspondent's letter which appeared in your issue dated July 8 *re* a Leeds College professor on Potatoes. I should have thought you would have had a reply from the College authorities, especially as you invited their opinion. It does seem strange that a gentleman claiming to be a professor (a man of expert knowledge) employed by the Yorkshire County Council should deem it wise to give such lectures as described by your correspondent; but if the learned professor is right, then he is only telling us what I remember being told in my boyhood days, but about which I have since altered my opinion. I am further surprised that neither of the seed firms has taken the trouble to contradict these statements. I take it that they regard us gardeners as having a little more common-sense than to believe in such easy-going ways of selecting new kinds of Potatoes. But this gentleman, who is employed by the County Council of Yorkshire, I presume is an expert in horticulture, therefore supposed to know, and ought to know, what he is talking about. I also notice that he claims to have had an insight into the seed business by having at one time been with the firm of Messrs. J. Carter and Co. I have heard experts ridiculed somewhat of late, and am almost persuaded to believe some of the statements levelled against them since I noticed the above; but in the interest of horticulture generally there ought (if it is possible) to be some official contradiction or notice taken of the matter.—A. CRANSTONE, *Newbury*.

Two fine exhibition Roses.—Under this heading your able correspondent "P." eulogises W. R. Smith and Medea. Might I warn amateurs that while the former is a beautiful Rose and not difficult to grow, the latter has a very large number of petals, and therefore more often than not

opens badly. No doubt, given weather like we had in May and early June, it throws back its petals readily; so would Bessie Brown and White Maman Cochet.—WEST WORTHING.

Sophora grandiflora flowering in Oxfordshire.—I quite agree with your correspondent about the beauty of Edwardsia (Sophora) grandiflora, but must dissent from his statement that it does not flower in the neighbourhood of London. A plant here (in Oxfordshire) has flowered splendidly for the last twelve years, and seeds freely. It is about 15 feet high, against a south-west 10-feet wall, which it has overtopped, and it has not been protected. On the same wall there are (or have been) in flower this year the following plants, among others: Abutilon vitifolium, Escallonia montividensis, Buddleia Colvillei, Actinidia chinensis (flowered for the first time this year), Solanum crispum, Carpenteria californica (now in full bloom), Hydrangea scandens, H. quercifolia, Leptospermum scoparium, Jasminum revolutum and Viburnum macrocephalum (which has been magnificent this year). None has been protected in any way.—B.

The Onion crop in allotments.—An interesting inspection of some 150 allotments not far from where this note is written shows careful and intelligent culture and, as a whole, very satisfactory crops, and it is pleasing to note that the annually increasing interest taken by the majority of County Councils in cottage gardens and allotments is producing such practical results. Personal observation, however, tends to the conclusion that while the small holder has made great strides in the improved cultivation of the soil, cleanliness, arrangement of crops and the like, he has yet much to learn as to the life-history of the many enemies with which he has to grapple and the best means to combat the same, very visionary ideas, for instance, being entertained as to the origin of the leather-jacket, the Celery and Onion maggots. I noted the last particularly, because it was regrettable to be unable to find a dozen beds of sound, healthy bulbs of spring Onions in the 150 allotments. It was about the worst case of maggot that has come under my notice, and the unfortunate part of the affair is the inability to suggest any possibility of saving the crop. Just where the value of the Onion comes in to the small holder in any list of crops may be a matter of opinion. Personally, I should be inclined to give it a second place, together with Potatoes, Cabbage, winter greens and Runner Beans, for it is valuable as well as useful, superfluous produce finding a ready sale at a remunerative figure. Bearing this in mind, it would be well if all taking a special interest in the allotment question would endeavour to impress upon holders the necessity for preventive measures at different periods in the careful and complete removal at once of all diseased bulbs before the maggot assumes pupæ form and goes deeper in the soil, digging in a liberal dose of gas-lime in autumn in plots destined for next year's crop, and fairly constant applications of something to the foliage in the early stages of growth to render it distasteful to the fly. This may take the form of a powder, a mixture of soot and lime, or a liquid made by incorporating 1oz. of paraffin and a piece of soft soap about the size of a Walnut with one gallon of water, the compositions to be lightly dusted or sprayed on the plants as often as may be considered necessary. In dry weather the effect would remain for several days, but it is necessary to repeat the application after rain. It is sometimes claimed that seedlings raised under glass and transplanted are immure from the fly, but this is not so. I have seen them badly attacked.—A. G. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SPRING BEDDING PLANTS.—The seedling plants of Wallflowers, Myosotis, Canterbury Bells, Pansies, Polyanthuses, Silene and other spring-flowering plants must be transplanted from the seedling-bed before they become too crowded and starved. Should the weather be dry at the time of planting, they should be shaded during the hottest part of the day and occasionally sprinkled with a rosed can till they have become established.

Violas.—If it is intended to propagate these from cuttings, some of the old plants may be cut down to encourage young growth. From these plants good cuttings will be obtainable by the end of August or early in September for inserting in cold frames. Violas may also be propagated at the present time by dividing the old plants and planting them in a border. Polyanthuses may be treated in the same manner.

Summer Bedding Plants.—It has been already necessary to frequently water bedding plants, herbaceous borders, Roses and lawns. At the time of writing the weather is still very hot, with a drying wind and a rising barometer; therefore there is a likelihood of much time being spent in the use of the water-cans and hose-pipes. This work should be done as far as possible in the early morning and late afternoon and evening. The soil between the plants should be disturbed with the hoe as often as time and labour will allow. Remove decayed flowers and seed-pods from the plants systematically. It will also be necessary to frequently go over beds of formal design to restrict the growth of free-growing plants.

Roses.—If these have not already been mulched, it will be of much benefit to the later blooms if this is done now. Should the weather continue to be dry, it will also save much time in watering. After the hot, dry weather which seems to have been generally experienced throughout the country, the wood will be sufficiently well ripened to proceed with budding. Let the buds be shaded as soon as the operation is finished, and damp them two or three times a day during hot, dry weather. Cuttings may be inserted in a light sandy compost in a cold frame. Keep them moist by syringing twice or three times a day, and shade them from bright sunshine. Climbing Roses may be pruned as soon as flowering is over. In most cases the whole of the flowering wood may be cut away, and the young growths which are pushing from the base of the plants must be trained up to replace the old wood. In this way the young growths will become thoroughly hardened and, in consequence, better able to standa severe winter.

Violets.—The hot, dry weather has been favourable for the development of red spider. If this has obtained a footing on the leaves, no effort should be spared to rid them of this pest. Dust the plants occasionally with soot, and syringe them late in the afternoon with an insecticide.

Border Carnations and Pinks.—When these have flowered, the propagation of young plants for next season must be attended to. The method usually adopted for Carnations is that of layering the young shoots. Pinks may easily be propagated by inserting cuttings in light sandy soil in a frame, or by dividing the old plants. They may also be layered in the same way as the Carnation.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

CLIMBING ROSES.—Early-flowering climbing Roses as they pass out of bloom should have all the shoots that have flowered removed, cutting them back to some of the strongest growths that are usually found near the ground, so as to enable the young vigorous wood of the current year to get well matured in order to stand the winter and furnish the flowering shoots of next season. The same remarks apply to many other climbesi, whether growing on walls, pillars or pergolas; young plants should be carefully watched and properly supported against the intrusion of other plants having a rampant growth. Those that are planted and trained on walls have suffered much from continued drought, unless where they have been regularly supplied with water. Continue to syringe regularly against attacks of green fly and other insect pests, the absence of heavy showers of rain having been favourable to their rapid development.

Standard Weeping Roses of the Dorothy Perkins type should have suckers from the stocks removed as soon as they appear, otherwise the heads will be weakened in growth. Rugosa stocks, in my opinion, are a great improvement on the common Briar, but suckers are very freely produced and must be kept in check. Dwarf Roses should have all their spent flowers removed, and if given a top-dressing of well-decayed manure at this time the autumn crop of flowers will be much improved.

Herbaceous Borders should be attended to by supporting and tying all those plants requiring it, and any further thinning out of the shoots where necessary. Cut over those that have finished flowering. This, however, should be sparingly done, the removal of the spent flower-stems being generally sufficient to maintain the borders in a tidy condition. Where numerous spring-flowering bulbs are intermixed among herbaceous plants, the spaces that they occupy are apt to have a bare appearance after the foliage has ripened off. This can easily be avoided if a few hardy or half-hardy annuals are planted where gaps are likely to occur. A top-dressing of decayed manure or that from a spent Mushroom-bed will greatly assist herbaceous plants through their flowering period, especially on borders that have not been renewed lately.

Sweet Peas, on account of the dry season, are very dwarf, unless where they have had daily supplies of water. Mulching and heavy waterings of liquid manure are the only means of ensuring a constant supply of good blooms in a dry season. The seed-pods should also be removed before they have time to develop their seeds, or the flowering season will be a short one.

Carnations.—Border Carnations should now be layered as soon as possible, for where autumn planting is practised it is necessary to have early-rooted layers that will get well established before the approach of winter. Autumn plantations always provide the best crop of flowers, and unless in the most unfavourable of our winters we have very few failures. It is as well, however, to be prepared with a surplus for spring planting when dealing with a crop that is liable to be destroyed not only by unfavourable weather conditions, but from the attacks of pheasants, rabbits, rats and mice, all of which will attack Carnations in preference to almost every other garden crop.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE ROSE GARDEN.

AMERICAN PILLAR AS A WEEPING ROSE.

THIS valuable novelty will be in much request as a weeping Rose, for its glowing colour, appearing as it does in the early days of July, when our Roses are in the zenith of their beauty, gives just that touch of colour needed in weeping Roses. Both Hiawatha and Excelsa are a week or so later, and Crimson Rambler and Rubin are not good when grown in this form, so that American Pillar cannot fail to be most useful. There is quite an elegance of growth, almost as graceful as the true wichuraianas, from which it must surely be a hybrid, and the splendid foliage, retained beyond Christmas, is in itself quite a picture. The flowers of American Pillar are very persistent, a valuable feature in a single Rose. They are fully 3 inches across and of a lovely rosy crimson colour, with large white eye. They are produced in nice clusters, not, of course, so large as Dorothy Perkins, but quite large enough to make a fine show. A groundwork of the new Polyantha Orleans Rose would go well with American Pillar, or Aennchen Müller, Baby Dorothy and Mrs. W. H. Cutbush blend well with it. A large bed of these Polyanthas with half-a-dozen of American Pillar on stems about 5 feet in height would make a very telling effect, especially if located near a bed of Viburnum plicatum or Delphiniums. For covering a bank, American Pillar is excellent, as it is not too prostrate for the purpose.

ROSE CRIMSON DOROTHY PERKINS.

THE charming novelty which Mr. Walsh has given us in Excelsa will be sought after probably as much as any rambler of recent years. It is one of those flowers that compel admiration, and one can readily imagine what possibilities there are awaiting this Rose. Planted in conjunction with White Dorothy, Pink Dorothy and Blush Dorothy (Lady Godiva), we have a quartet of beauties that will make our arches and pergolas a very gay picture from mid-July to well on into August. I advise all who value the old Dorothy to obtain the other three named above and plant alternately for hedge, screen, weeping plants or isolated positions, taking care to put the Excelsa between the White Dorothy and Lady Godiva. For the sake of further variety, Hiawatha, Delight, Lady Gay and Mrs. L. Dewhurst could be added, all flowering fairly simultaneously. Dual sorts selected from the above and of good contrasting colours would look well upon tall standards. In speaking of this tribe I strongly advise anyone to go over their plants and remove the long growths that start out from the truss of bloom. Cut these shoots back to about 3 inches or 4 inches of their base. If retained, they hide much of the beauty of the trails of bloom.

P.

NEW ROSE FRANCES CHARTERIS SETON.

THIS Rose was first exhibited at the recent Olympia Show by Messrs. William Paul and Son of Waltham Cross, when it received an award of merit from the Royal Horticultural Society. The new-comer belongs to the Hybrid Tea section, and, judging from the specimens shown, is a strong and sturdy grower. The colour is deep rosy red, with salmon shading, and the petals are heavily reflexed. The flowers are very attractive, not only from the pleasing tone of colour, but also from the fact that they are sweetly scented. There is plenty of substance in the flowers, which are borne erect on good long stems. This Rose will doubtless prove a charming and beautiful addition among garden varieties as well as for exhibition purposes. A number of new Roses have been brought before the public this season, and of them only very few will ever become really popular, The variety under notice possesses the attributes of a good and useful Rose of which we shall hear more.



THE NEW HYBRID TEA ROSE FRANCES CHARTERIS SETON.
(*Much reduced.*)

THE FRUIT GARDEN.

FRUIT NOTES.

PLANTING STRAWBERRIES. — There will now be thousands of runners, excellently rooted, and crying out for severance from their parents and planting in permanent positions. The sooner this can be done, the better are the prospects of next season's crop, because early-rooted plants secure a splendid hold before activity ceases for the year and build up a magnificent capacity for fruiting. The ground will have been prepared two or three weeks ago, so that only the actual planting has now to be accomplished. Although it is possible to plant closer, it is wise to allow 30 inches from row to row and 15 inches between the plants in the lines; after the bed has borne one crop of fruit, every alternate plant in the lines should be cut out, so that a distance of 30 inches in all directions will be given to the plants during the second and third years of cropping. If the weather is dry, heavily water the soil in advance of planting, and again afterwards if it is deemed desirable; but never put the roots into dry ground, as it gives them a check, and this is precisely what ought to be avoided.

EARLY APPLES.—Although there will not be the immense crops of Apples which the blossoming-time promised in many gardens, there is an excellent average yield, and the cultivator should see to it that he secures the full benefit of every fruit there is. One way of attaining this end is to gather the early varieties and eat them from the tree, since any attempt at storage will result in loss of quality. Go over the trees daily, securing those that are ready; and if the number is too great for personal family consumption within the twenty-four hours, it will not be difficult to find accommodating friends who will help one out of such an awkward corner.

SUMMER PRUNING. — This important task will be in full operation on the small fruits, the trained trees on walls and espaliers, and also on such bush Apples and Pears as are dealt with in this manner. That it is beneficial cannot be disputed, but the trouble is that in many gardens it is impossible to find the time necessary to carry it out properly, and it is done, if at all, in a more or less perfunctory manner, which can never exhibit its full advantages. The crop of the moment is vastly improved in colour, size and quality, and the increased amount of light and air which penetrates to the lower buds ensures superior development, and thus directly favours the prospect of succeeding crops. Amateurs who have only a limited number of trees with which to deal should carry it out in the most scrupulous manner, because it is certain to tend to their permanent benefit, and they have not usually so much to do that they cannot give the necessary time and careful judgment to this important task. The principle is to reduce the summer growths by

removing their points at six leaves, and if this were the end of the matter all could do the work; but it is not, since this cutting induces lower buds to start, and the resultant shoots must be pinched back to two leaves immediately these are formed. Thus the operation is successive, and demands close following if it is to be productive of the best results. It is imperative in trained trees, whether they be Apples or Pears, Gooseberries or Currants, and it is desirable in all forms of culture; so each grower must decide for himself to what degree he can carry it out for his own benefit.

THINNING FRUIT.—It is unfortunate that the thinning of Apples and Pears, and other fruits, too, for that matter, goes absolutely against the grain of the average amateur. He has planted fruit trees to bear fruits, and he cannot, or will not, see the advantage of removing them before they are big enough to be of the slightest value. Trees that were two years old when planted ought not to carry a single specimen, and those of three years not more than one or two, while older trees should be cropped in distinct accordance with their condition and the variety. By laying a thoroughly good foundation at the start, the grower immensely benefits in the long run, for if a tree is not subjected to the exhaustive process of cropping in its earliest days, it will bear regularly season after season when it is established, whereas, if it is overburdened at the start, it will be stunted or thrown into that peculiar state which spells a crop in alternate years only. FRUIT-GROWER.

KITCHEN GARDEN.

EARLY POTATOES AND HEAVY SOILS.

THE season has been somewhat erratic for early vegetables, and those who have a cold or heavy soil to deal with were somewhat handicapped in the early spring by severe frosts, rapidly followed by genial warmth and frost again, so that weak growers suffered severely. The true old Ashleaf type are now, fortunately, not grown nearly as much as was the case some years ago. I may be taken to task for using the term "fortunately," but I do so well knowing that at the present day these Potatoes have many admirers, and few varieties are superior to them as regards flavour. But, as far as my experience goes, they are by no means profitable to those who have a cold soil resting on clay; here there must be a more vigorous grower, and as this can be secured with good quality, the Ashleafs are less grown.

There is no lack of really excellent early Potatoes that have been introduced of late years. Fortunately, we have in some of these the good quality of the older kinds, with good cropping qualities and earliness combined. Many who have none too much space at command are unable to grow late kinds, and, consequently, require the earlier ones to yield well, and this is a strong feature with many of the recent introductions. There is no gain whatever—indeed, rather the reverse—by planting too early, and especially in heavy soil. For instance, this season prepared sets of May Queen planted on March 20 gave splendid tubers in three months, whereas those planted a month earlier were terribly injured. I have referred to May Queen as a valuable early Potato, and what makes it more valuable is the absence of small, useless tubers, a great gain where earliness is the chief point. The haulm is robust, though somewhat dwarf, and is not readily injured by frost; but the chief point with many is the flavour, and for such an early tuber it is excellent. The flesh is white. It is a splendid cropper and a good variety for heavy soils.

A great favourite, and one that has largely taken the place of Myatt's, is Sharpe's Express, a dwarf grower, but by no means weak in a heavy loam. It is an early white-fleshed kidney of excellent table quality. A Potato less grown in the South than its merits deserve is Midlothian Early. By this I mean that cottagers would do well to grow some of the above varieties, as even now large quantities of the American Early Rose are grown, and in a heavy soil and a wet June or July the quality is most inferior; indeed, in country districts large breadths of this inferior tuber are cultivated. Last season, at a trial of early Potatoes by the National Vegetable Society, Midlothian Early was one of the leading early tubers for crop, earliness and quality. Of the newer kinds, Lady Llewelyn is a great favourite; this is a white-fleshed kidney and a very good cropper. New English Beauty (Veitch's) is a seedling of great merit, and has much of the Ashleaf in its yellow flesh. It has a smooth skin, with fine table quality, but is not so heavy as regards the crop as the others noted above. No note would be complete that omitted the now well-known Sir John Llewelyn, a variety that has found many admirers on account of its abundant crop, disease-resisting qualities and earliness. An excellent early Potato I had from Ireland is Milecross Early, a white round and very distinct. This has a dwarf haulm, is a great cropper and free from disease. In a small garden it is valuable for its earliness and compact growth. G. WYTHES.

THE FLOWER GARDEN.

THE ROCK AND WATER GARDEN AT GNATON HALL.

THE accompanying illustration represents a portion of the rock and water garden at Gnaton Hall, near Plymouth, the property of Charles Bewes, Esq. The main feature of the picture is the Gunnera, which at the present time is a magnificent specimen. The photograph was taken earlier in the season, before the leaves had fully developed. The earliest leaves were entirely killed by the severe frost and east winds of the first week of April. The plant is growing under ideal conditions, having a small island devoted to it in the centre of the pond, thus allowing an all-round view to be obtained of it from the banks. In the foreground of the island are Primula japonica, Myosotis, Caltha and Mimulus. The pond is of irregular formation, with turf banks and slopes, broken by groups of rockwork rising from the water, making in all a picturesque scene. The supply of water is obtained from natural springs, entering the pond by way of a waterfall, which is obscured from view by the Gunnera. Bold clumps of Bamboos and Phormium are seen in the background, also an old Apple tree in full blossom. Various water-side plants are growing on the banks, these including Senecios, Spiræas, Calthas, Iris, Saxifraga peltata, Funkias and Osmundas. E. C. POOLEY.



VIEW IN THE ROCK AND WATER GARDEN AT GNATON HALL, PLYMOUTH.

AUTUMN-FLOWERING CROCI.

THE species of Crocus known to gardens are exceedingly numerous, and probably no section is more sparingly represented in the amateur's collection than that which embraces the autumn flowering kinds. These must not be confounded with Colchicum autumnale, although this subject frequently masquerades under this assumed name, for the true autumn Croci share the characteristics

of the more familiar spring-flowering type, and are as easily recognised by their corms and narrow, grass-like leaves.

The best species include Crocus speciosus, a vigorous subject which produces from established bulbs sheaves of six to a dozen flowers of large size up to 7 inches or 8 inches in height, and having segments of lilac heavily veined with purple, to which the bright orange stigma gives a rich and pleasing contrast. It is one of the handsomest of autumn Croci, and, being inexpensive to procure, invites a trial from all interested in these pretty bulbous plants. C. zonatus is smaller in flower than speciosus. It is a pretty shade of pale rose lilac, the throat being yellow and bearded, while the segments are veined with a deeper shade than the ground colour of the petals. It is one of the first to flower, being at its best in September.

C. iridiflorus is exceedingly distinct, owing to the three outer segments being much larger than the inner three, which are pale lilac in colour, while the outer segments are bright purple. The anthers are bright orange, and so impart additional charm to the flowers, C. pulchellus produces pointed flowers, the throats of which are coloured orange yellow, the petals being a pale blue shade with veins of a deeper shade. It flowers during September and October. C. Medius gives a large flower, with a throat almost white. The petals are bright purple, veined with deeper purple, the outside of the petals being of a deeper tint than the inside. It flowers during October and November. C. sativus, from which the saffron of commerce is obtained, produces violet flowers, veined by deeper and lighter shades of the same colour. It flowers in September and October, but is not reliable except in certain districts and under most favourable conditions.

Autumn Croci succeed best in a well-drained soil of average quality. Where manure is added to the soil before planting, this should take the form of well-decayed farm manure or that from a spent Mushroom-bed. The plants are exceedingly effective in beds or borders where some low carpet plant can be arranged over them, all the forms of creeping Thymes being excellent for the purpose, and a border devoted to this class of subject, with Chionodoxas, Muscaris, Narcissus triandrus, N. minimus and others similar to follow in spring, presents a feature of uncommon interest. In colonies on the rock garden these autumn Croci introduce a floral display when few choice plants remain in season, and they are in perfect harmony with rock plants. Again, in pots or pans they form welcome additions to the window garden or unheated greenhouse when in flower, and in this form appeal with greatest force to those who dwell in towns.

In order to secure the best display, bulbs ought to be planted during July or early in August, as after this date the bulbs begin to lose strength, and if planted later than September the first flowers will come late and generally poor in quality, while their strength will naturally suffer and find expression in smaller corms for the following season. Autumn Croci are absolutely hardy, and under suitable conditions increase in size and number every year. They are best planted from 4 inches to 6 inches deep (deeply-planted bulbs give the best flowers) and not disturbed until signs of overcrowding become evident. The distance apart to plant is, for zonatus and iridiflorus, 4 inches; for the others named, an average of 6 inches will produce a close display of colour when in flower.

THOMAS SMITH.



A RARE HARDY PLANT: OXALIS ADENOPHYLLA.

A RARE AND BEAUTIFUL OXALIS.

BEFORE the introduction of the beautiful Oxalis adenophylla from Chili, the equally attractive O. enneaphylla from the Falkland Islands was unique in appearance and habit in a genus that contains many beautiful plants. O. adenophylla has similar glaucous foliage, although the leaflets are more numerous in the Chilian species. The principal difference between them lies in the rootstock, which in O. adenophylla is large and bulb-like and covered with a strong fibrous coat, while that of O. enneaphylla is smaller, scaly and without the fibre that is so strong a feature in the other. There is also a difference in the inflorescence, for while the Falkland Island plant has large white flowers, produced singly on short stalks, reaching just above the foliage, in the subject of the illustration the flowers are borne two or three on each peduncle. The colour of the latter is a rosy pink, with deeper lines and a purple base.

Oxalis adenophylla was collected near San Martin in Chili by Mr. H. J. Elwes, growing at an elevation of 6,000 feet. He gave a plant to Kew, and it flowered first in May, 1905. Since then it has increased rather freely, but till last year it had been grown in pans in a cold frame, flowering every May in the Alpine House. Last year some plants of it were put out in a half-shaded position in the rock garden to test its hardiness during the winter. At that season the leaves die down, leaving only the fibre-covered rootstock just showing its apex above the ground. A mixture of loam and leaf-soil, with plenty of sharp sand, composed the soil in which they were planted. With a slight covering of Bracken they came through the winter all right, and this beautiful plant will prove as hardy as O. enneaphylla.

It is dwarf, and numerous leaves are produced on petioles about 3 inches long. The foliage is extremely pretty, being of a glaucous green colour, rendering it quite attractive even when not in flower. As a plant for pot culture for use in the alpine house it is one of the best, producing a succession of its beautiful flowers throughout the month of May. When not in flower, the pans are plunged to the rim in ashes in a frame with a northern aspect. When in flower it likes a more sunny position than its white-flowered ally, for the flowers do not always open on a dull day to any extent. Every second or third year the plants should be turned out of the pans, when small offsets will be found round the base of the old rootstock. These may be taken away and potted up separately in small pots in well-drained sandy soil.

W. I.

THE EDELWEISS.

(LEONTOPODIUM ALPINUM.)

THERE is a mistaken impression abroad that since the Edelweiss is a native of the high Alps it cannot be grown successfully in a lowland garden. That the impression is a wrong one is clearly shown by the fact that this plant may at the present time be seen in many rock gardens situated in the low-lying parts of the Thames Valley. It is even more surprising to note that it may sometimes be seen flourishing on exposed rockwork even in the London parks, where it has to contend with the baneful effects of a smoky atmosphere, which is directly opposed to the clear, crisp mountain air of its Alpine home. Since the Edelweiss will grow and flourish under such unfavourable conditions as these, it may be recommended with safety for British gardens in general.

To succeed in the cultivation of this interesting plant, it is in the first place essential to find a suitable niche for it in the rock garden. The position should be exposed, for anything in the nature of heavy shade from trees is very harmful to the Edelweiss. It is necessary that the soil should be of an open, sandy nature, for a heavy, adhesive soil where moisture is likely to

collect leads to most disastrous results. In gardens where the Edelweiss is grown it is usual to raise young plants each year from seed. Another method of increase is to divide the old plants in the spring; but plants so propagated lack the vigour and constitution that are usually shown in the seedlings. In wet and sunless summers it becomes a difficult matter to procure seed in this country; but in a fine summer such as we are now experiencing, there should be no paucity of seed. If the old flower-heads are cut off when ripe and then laid out to dry on the shelves of a greenhouse where no moisture can reach them, the seed will be in good condition for sowing in the spring.

One often hears complaints of the rarity of the Edelweiss in certain parts of Switzerland where it was formerly abundant, and this is not surprising when one considers the wide sale there is for this plant in practically every village in that country. The Edelweiss, together with the Alpen Rose, is collected by the peasants in large quantities, and afterwards sold in the streets to tourists, with the inevitable result that these plants get less and less each year in certain districts. In Great Britain the Edelweiss usually flowers from late May onwards, but in the Alps its season of flowering is much later, it being generally seen at its best in August and September.

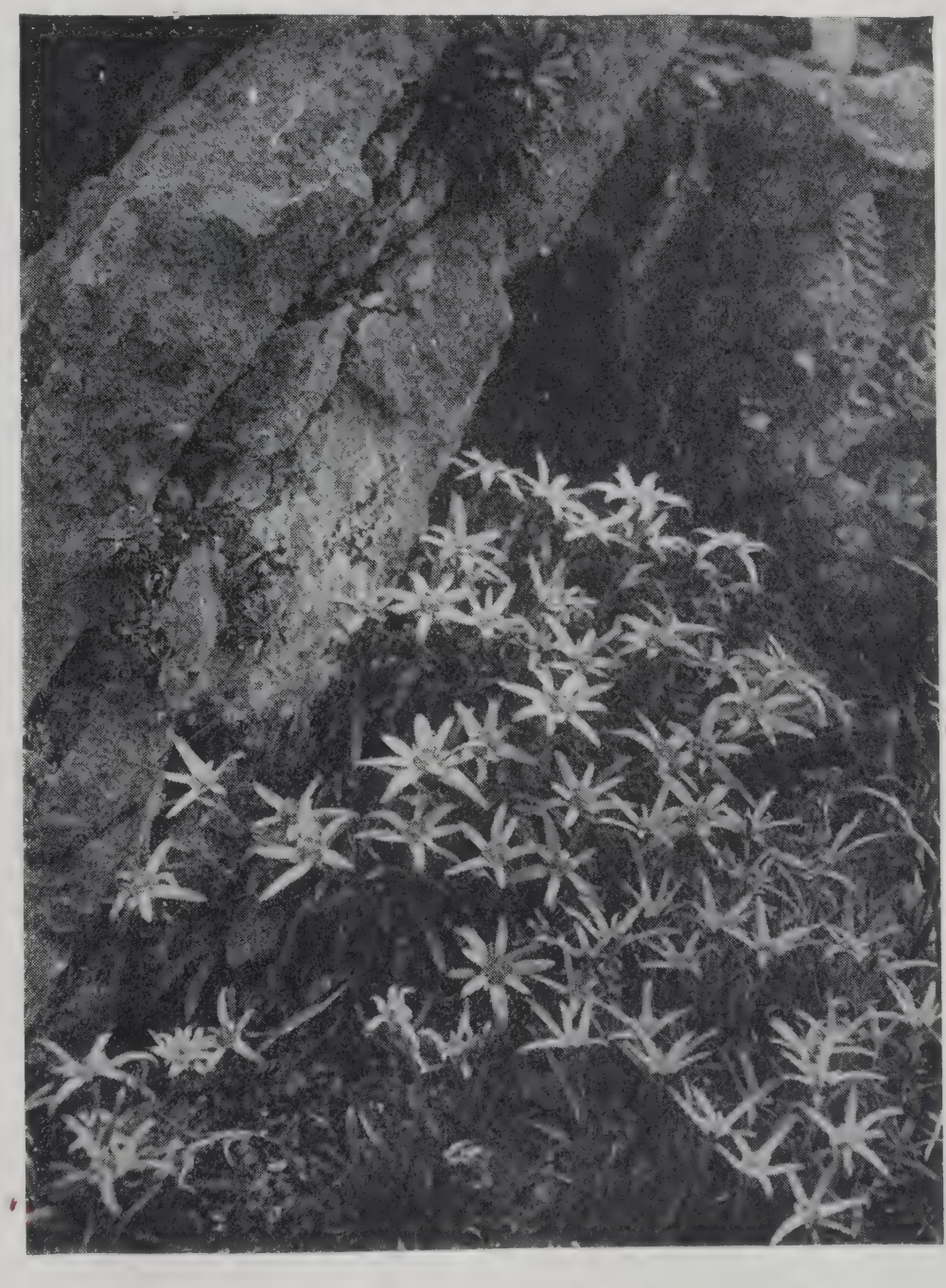
As a plant for the rock garden it is worthy of extended cultivation, not only from its interesting associations, but also from its pretty flower-heads, each one surrounded by a whorl of soft woolly bracts.

AN INTERESTING BRITISH PLANT.

(FRITILLARIA MELEAGRIS.)

THERE are a few places in England where that beautiful and interesting bulbous plant Fritillaria Meleagris may be seen blooming in its native habitat. Among the rich limestone pastures of North Wilts, near to the village of Oaksey, are two or three meadows where it can be seen in magnificent simplicity and profusion during the month of April, and whenever the exigencies of business prevent my annual pilgrimage to the enchanted ground, my thoughts turn there at the season of blooming as unerringly as the magnetic needle turns towards the Pole. The inelegant but expressively descriptive name given to this flower by the natives of Oaksey and adjacent villages is Toad's-heads, the marbled flowers being not dissimilar in colour to the skin of that homely creature; and though not conspicuous from a distance except in masses, all who know the genus will admit it to be both pretty and interesting. More modest than the Tulip, both in colour and attitude, it does not hold its head erect and throw its defiant challenge to the elements; but its chalice of marbled chocolate brown gracefully droops from its slender stem, seemingly unaware of its merited rank among the aristocracy of indigenous flora.

There are two things concerning this particular colony of Fritillaria Meleagris which are a source of wonder to the natives, though to us neither of them may appear to be unaccountable. First, the natives say that no one can successfully transplant the bulbs; and, secondly, that the colony is on the march, ever moving, though but slowly, in an easterly direction. With regard to the first, as the thousands of failures noted have been the result of well-intentioned vandalism in digging them up when in full bloom to carry them into a garden, it can easily be understood that the bulbs, resenting such rough treatment, would refuse to respond, being, in fact, foredoomed to death; but I speak from experience when I say that dormant bulbs can be lifted in August and transplanted into congenial soil with impunity. Then, as regards the gradual eastward march, I have a very respected relative who has lived continuously in that village the whole of her life, something over ninety years. Within her memory the Fritillarias have moved across several fields. I cannot help thinking that three or four centuries ago the original stock was planted in the gardens attached to Malmesbury Abbey, fostered there by those monks to whom we owe the preservation of so much. As in course of time the Abbey, with its gardens, fell into decay, so these flowers, in accordance with the direction of the wind at the time the seeds were ripened, sowed themselves on their eastern front, while the old bulbs on the western rear gradually died out. My theory may be wrong, but it is very feasible, and certainly is able to account for this isolated colony of a very rare and very beautiful native flower. F. J. F.



EDELWEISS IN A ROCK GARDEN NEAR LONDON.

TREES AND SHRUBS.

A HANDSOME SHRUBBY SPIRÆA.

(S. HENRYI.)

SHRUBBY Spiræas have been well represented in gardens for a long period; but within the last few years several new species have been introduced from China, which in many ways are quite as ornamental as the older ones. S. Henryi is one of the best of the new kinds, for in addition to being very floriferous it is of graceful habit, with long, pendent branches, which naturally form a shapely bush. It bears some resemblance, so far as habit is concerned, to S. canescens, though its leaves are larger. In this instance they are ovate, up to 1½ inches long and covered with fine, soft hairs, more particularly on the under surface. The white flowers, which appear towards the end of June, are borne in corymbs 2 inches or so across from the points of short shoots that spring from the majority of the buds on the previous year's growth. Like the other shrubby Spiræas, it gives little cultural trouble, for it thrives in any good garden soil, preferring that of a rich loamy character. Its vigorous growth indicates a robust constitution, and plants four or five years old may be 4 feet through and quite as high. Little in the way of pruning is required, though it may be necessary occasionally to thin out some of the old wood after flowering to make room for new growths. Cuttings taken during July and August form a ready means of increase, while plants may also be raised from seeds, which set freely. W. D.

RUBUS DELICIOSUS.

THE common name of Rocky Mountain Bramble is sometimes applied to this species. It is, however, very unlike a Bramble when in bloom, and might readily be mistaken, if the flowers only were casually examined, for a species of Rose, or when out of bloom for a member of the Neillia family. Forming a bush 6 feet or 7 feet high, the branches are loosely disposed and somewhat pendent, which impart a free and graceful habit to the shrub. The stems are brown and the bark peels off in much the same way as it does from the stems of Neillia opulifolia. The leaves, while resembling those of Neillia, are also somewhat like those of Ribes sanguineum until carefully examined, while the white flowers, which are upwards of 2 inches across on the better forms, are similar in shape to those of a single Rose. The red, Raspberry-like fruit, which ripens in June, however, clearly reveals the identity of the shrub. R. deliciosus is a capital shrub for planting in a bed about the borders of a lawn, and is also well adapted for the wild garden. As in the case of other members of the family, it succeeds best

in loamy soil, but offers no cultural difficulties. Seedlings come up freely beneath the plants; but if a specially good form is to be increased, no better method exists than layering. If the points of the branches are bent over and pegged into the ground, roots are formed and young plants appear. D.

THE GREENHOUSE.

ORCHID NOTES.

CYMBIDIUMS.

A FEW years ago saw the reintroduction of that remarkable plant Cymbidium insigne, and two varieties named Sanderi and splendens gained first-class certificates from the Royal Horticultural Society. The type was discovered by M. G. Bronkart in 1900 growing along ravines in Annam, but it was left to M. Micholitz (Messrs. Sander's collector) to send home forms superior to the original, both in regard to floral decoration and constitution. At first this charming Cymbidium was very expensive, but now it is within the reach of those who are unable to pay big sums for their Orchids; in fact, I saw only recently a specimen plant sold for two guineas. This species is quite distinct from any other in cultivation, the sepals and petals being white, tinged with light pink, while the lip is handsomely blotched with rosy crimson. No collection can be considered complete without C. insigne Sanderi, and the possibilities from the hybridist's point of view are great. A few hybrids have already appeared, but the plants were small, and will be capable of improvement when they become strong. The first to be seen was C. glebelandense, followed by C. Pauwelsii, C. Alexanderi and C. gottianum, and the other parents were Schrœderi, lowianum concolor, eburneo-lowianum and eburneum respectively. These form an interesting series, but at present are by no means common. However, they show what has been accomplished, and give an idea of what to expect in the future.

Other desirable Cymbidiums are giganteum, traceyanum, grandiflorum, tigrinum and devonianum. The two latter, on account of their pendent scapes, are best grown in pans with wire handles attached, when they can be suspended from the roof.

The proper time to repot Cymbidiums is a few weeks after flowering, and, being strong-rooting subjects, they require a somewhat rich soil, which consists of the best fibrous loam one-half, peat or Osmunda fibre one-fourth, and the remainder made up of chopped sphagnum moss, Oak leaves and finely-crushed crocks. Where the plants are in a healthy state, receptacles two sizes larger will be needed, but these must not be overdone with drainage, a few potsherds being ample, over which is placed a layer of loam to secure a free outlet for water. During the process of repotting the compost must be pressed fairly firm around the roots and brought within 1 inch or so of the rim. This allows sufficient space for giving water, because a large quantity is necessary during the growing season. The subjects named in the present article are not particular as to temperature, but the intermediate house is usually chosen for their reception, and here the temperature fluctuates between 50° and 65° Fahr., according to the season. The atmosphere is kept moist and air admitted whenever possible, while a gentle spray overhead and on the under surface of the foliage is very beneficial and helps to hold in check red spider, which sometimes appears on the leaves. A small scale is also occasionally present around the base of the pseudo-bulbs, but this can be eradicated by applying a weak solution of some reliable insecticide, such as those advertised in THE GARDEN, with an old tooth-brush.



SOME OF THE NEW REGELIO-CYCLUS IRISES. (*See page* 362.)

When the plants have completed their season's growth, a rest is given for a few months during the winter; but water must still be applied, for it is not expedient to allow the pseudo-bulbs to suffer from drought. All the Cymbidiums mentioned are of easy culture and very floriferous, the spikes remaining in full beauty for several weeks, especially lowianum and giganteum; but the beginner must not be tempted to allow them to remain for an indefinite period, or the succeeding growth will be small. The best method to adopt is to remove them directly the bottom flower begins to lose its colour, and utilise them in the dwelling-house for decorative purposes. When once Cymbidiums are well established they are easily grown, but it must not be overlooked that these plants are most difficult to restore, on account of their fleshy roots, if imported in a bad state or if neglected under cultivation. SENTINEL.

THE TOWN GARDEN.

OVERDRY GARDENS.—At the moment of writing a very considerable number of town and suburban gardens are sun-scorched and dry in the extreme. To make matters worse, a drying wind has been playing havoc these past few days, and both are as harmful to vegetative progress and development as any two forces which the amateur is called upon to combat could possibly be. Quite naturally, the amateur's panacea for drought and aridity is water. How it is applied, and when, and the effect it has on vegetation when wrongly applied, are matters beyond his grasp; and regardless of results, provided no miracles are wrought, and also provided that the death-rate meanwhile among his pets is not of the record-beating scale, he waters again, and still again. That the soil is of a hot-bed character at the time, and that these frequent deluges of ice-cold water direct from the main or service pipes are calculated to set up a chill in the plants, the operator has never paused to think. That they do this, and that a succession of such deluges are

POSITIVELY DANGEROUS TO PLANT-LIFE, few, I think, will be tempted to gainsay. The application of so much cold water during times of great heat is on all fours with the individual who, with a temperature raised to fever-heat, insists on drinking iced water in abundance. The root fibres at such a time may be revelling in hot soil. To dose the latter with cold water is likely to set up a sudden chill, the ill-effects of which are seen a few days later. Such watering as this is harmful in the extreme, positively dangerous, as I have already stated, to plant-life.

HOW TO AVOID IT.—The best way to avoid these sudden chills is to resort to sun-warmed water, water which has been exposed to the warming influence of the sun in a tub or tank for a few hours during the day. Quite the equal of this is to avoid watering altogether so far as plants in open beds are concerned, and if the beds have been well prepared at the outset, not much harm will ensue. It must not be forgotten that vegetable-life suffers more from aridity of the atmosphere than from dryness of soil, and while we cannot water or spray the former to any extent, our ideas as to the good effects of soil or root watering appear to stand in need of modification. If watering must be done, it should be done to saturation point, to be followed by a mulching of leaves or decayed manure, so that the operation does not require frequent repetition.

A GOOD SUBSTITUTE for the watering-pot is the hoe, so far as the garden is concerned, the small hand-fork for flower-beds being of equal service. A great danger arising out of frequent watering in the face of great heat and drying wind is a surface-baked soil, which nullifies aeration, and which probably in turn is a more serious check to vegetative progress than many would imagine. An unfortunate side to watering in these days is the popularity of the hose-pipe, convenient and useful enough when intelligently employed, but death-dealing to a degree when, the instrument of the thoughtless, it is made to send forth a hissing stream directed at the feet and legs of unoffending plants. Hence the reader will see that much depends upon the way the work is done.

OF BUDDING AND OTHER SEASONABLE WORK there is abundance at the present time, the work, like the weeds, despite all efforts to keep pace with such things, appearing to grow and increase at a great rate. S. N. N.

GARDENING FOR BEGINNERS.

MICHAELMAS DAISIES IN POTS.

THE perennial Asters, better known to garden-lovers by the common names of Michaelmas Daisies or Starworts, have long since emerged from the prejudice that at one time they were subject to. So many amateur gardeners and others were wont to regard these plants with considerable disfavour because of the over-robust and vigorous character of growth that older sorts were known to possess. All this has now changed, and instead of the coarse, strong-growing plants, which, by the way, were those mostly of the Novæ-Angliæ and Novi-Belgii species, there are many varieties that possess a wiry constitution without being unduly strong in the character of their growth. Quite a large number of the dwarfer forms of the Novi-Belgii species are well adapted for pot culture, and very charming indeed the plants are when so grown.



1.—PREPARING A PLANT FOR LIFTING.

Although the culture of the perennial Asters in pots is apparently quite simple, there is perhaps more in it than is obvious to most growers. Successful culture is largely bound up in the frequent use of the water-can during the summer months when the plants are well rooted in their flowering pots. They are extremely thirsty plants, and unless means can be taken to provide adequate supplies of water as and when the plants require it, the chances are that the result will be less satisfactory than most growers reasonably desire.

In the culture of Michaelmas Daisies in pots it is proper, of course, to select young plants in the spring and grow on these with ordinary care. In a comparatively short time the vigorous root action ensures the plants becoming established, and the pots in consequence are filled with roots in a little while. So soon as the plants have filled their first pots with roots, they should be transferred to their flowering pots without the least delay. The Michaelmas Daisies need for the final potting a good, strong, rich, loamy soil, and very firm potting must be observed. Ten-inch pots are suitable, and plenty of room for water and manure-water must be allowed if good results are to accrue. So soon as the finally-potted specimens begin to grow away freely and vigorously, they should be plunged in soil or ashes. Tie the growths so as to preserve the natural grace and beauty of the plants, and when the pots are well filled with roots apply liquid manure at least twice a week. When this system of culture is observed, ideal specimens are invariably developed. So few amateurs can grow these plants in pots from their earliest stages, owing to the necessity for constant supervision, and when growers leave their homes in the morning and do not return until the evening these plants cannot be given the attention they really need. For this reason it is better to lift specimen plants from the outdoor border in the late summer and place these straight away into their flowering pots. This is a very simple method of culture, and the system saves a lot of work and anxiety. So soon as the plants have developed their growths and the buds are in embryo, this lifting and repotting may be done quite successfully. In Fig. 1 a plant of one of the smaller-growing species which it is proposed to lift is shown. A few days before the lifting is actually done it is usual to insert a spade some few inches removed from the base of the plant, as shown in the illustration, going right round the specimen in this manner. A copious watering is then applied. After an interval of a few days, in the early morning or in the evening, the plant is actually lifted and placed in a pot that is properly crocked and close at hand to receive it. Some prepared soil, largely consisting of good loam, should always be at hand, so that as the plant is adjusted in position in the pot the prepared soil may be worked down into the roots. A few rappings on a potting-bench will assist in the settlement of the soil, which should be made quite firm. Subsequently water each plant thoroughly and stand in a semi-shaded position for a few days until established, after which the pots should be plunged half their depth in a good, open position. When repotted after lifting, the plant should be represented as shown in Fig. 2. This is a system of culture that might be adopted with considerable advantage in many gardens. D. B. CRANE.

HOW TO TREAT LILIUMS IN SUMMER.

A STRONG-FLOWERING Lilium bulb is expensive, and in order to reap full benefit for the initial cost it should be well treated from the time of planting to the flowering stage. Many good bulbs are ruined every year through mismanagement. Some are over-watered, and this, following bad potting, means yellow leaves and loss of flowers through buds dropping off prematurely. Others are starved in a poor soil and never receive any stimulant either in the form of liquid manure or artificial. At this time many pot-grown plants will require either repotting or top-dressing. I prefer to grow the bulbs in large pots from the first and to leave space for top-dressing; but, of course, many cultivators repot the plants. In every case a Lilium plant produces stem-roots, usually to a height of 4 inches from the crown of the bulb. When space has been left in large pots, additional compost can be put in, and thus the stem-roots are buried and the plant benefits in proportion to the quality of the compost used. When the plants are repotted, every effort must be made to bury the stem-roots by using sufficiently large pots for the purpose. These roots are very tender and brittle, and are soon broken off by any undue pressure at the time of top-dressing or repotting. Some of the more fibrous portion of the compost should be neatly placed among the stem-roots as the new soil is added; then, when the workman presses it down gently with his hands, the roots will not be broken off. The drainage must be quite free. Feeding will not be necessary after the top-dressing or repotting until the pots are well filled with roots. When grown in greenhouses, care must be taken to keep the flower-buds dry, as drip or constant wetting while in a cool temperature soon cause the buds to decay. Free ventilation is also necessary while the plants are flowering. It is a common practice to remove the anthers of the flowers to prevent the yellow pollen from being scattered on the petals. The practice is a wrong one, as the flowers are disfigured and half their beauty lost. SHAMROCK.



2.—THE SAME PLANT POTTED UP.

THE PARENTAGE OF ROSES.

(*Continued from page* 350.)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Palmengart Direktor Siebert ..	H.T.	Welter	1898	Kaiserin Augusta Victoria × W F. Bennett × Comtesse de Frigneuse
Panachée de Luxembourg	H.P.	Soupert	1867	Sport Dr. Arnal
,, ,, Lyon.....	D.P.	Dubreuil	1895	Sport Rose du Roi
,, ,, Orleans.....	H.P.	Whilhelm	1854	Sport Baronne Prevost
,, Pleine	Moss	Robert	—	Sport White Bath
Panama	H.T.	Hill	1910	Philippe Rivoire × Paul Neyron
Pan America	H.T.	Henderson	1902	American Beauty × Caroline Testout
Papa Gærtner	H.T.	J. C. Schmidt ..	1908	Camoens × Alfred Colomb
,, Lambert	H.T.	Lambert	1899	White Lady × Marie Baumann
,, Reiter	H.T.	Hinner	1900	Seedling Caroline Testout
Paul Feval	H.P.	Guillot f.	1861	Seedling General Jacqueminot
,, Kruger	H.T.	Verschuren	1905	Seedling Lady Mary Fitzwilliam
,, Neyron	H.P.	Levet p.	1869	Victor Verdier × Anna de Diesbach
,, Ploton	H.W.	Barbier	1910	R. wichuraiana × Mme. N. Levavasseur
,, Transon	H.W.	Barbier	1900	R. wichuraiana × L'Ideal
Paula	Tea	G. Paul	1908	Seedling Maréchal Niel × Seedling G. Nabonnand
,, Paternotte	P.P.	Ketten	1907	Comtesse A. d'Oultremont × Frau Syndica Roeloffs
Pauline Bertnay	Tea	Schwartz	1908	Beauté Inconstante × Meta
Paul's Early Blush	H.P.	G. Paul	1893	Sport Heinrich Schultheis
Peace	Tea	Piper	1902	Sport G. Nabonnand
Pearl Queen	H.W.	Conard	1899	R. wichuraiana × Champion of the World
Peggy	H.T.	A Dickson	1905	Gustave Regis race
Penelope	Tea	Williams	1906	White Maman Cochet × Mme. Lambard
Perfection de Monplaisir	Tea	Levet.....	1871	Seedling Canari
Perle d'Or	P.P.	Dubreuil	1883	R. multiflora × Mme. Falcot
,, des Blanches	H.N.	Lacharme	1872	Seedling Blanche Lafitte
,, ,, Jardins	Tea	Levet.....	1874	Seedling Mme. Falcot
,, von Godesberg	H.T.	Schneider	1902	Sport Kaiserin Augusta Victoria
Petit Constant	P.P.	Soupert	1899	Mignonette × Luciole
Petite Amante	B.	Soupert	1866	Seedling Louise Odier
,, Leonie	P.P.	Soupert	1890	Mignonette × Duke of Connaugh
Petrus Donzel	C.C	Schwartz	1903	Seedling Grüss an Teplitz
Pharisaer	H.T.	Hinner	1900	Seedling Mrs. W. J. Grant
Philadelphia Rambler	M.S.	Conard	1902	Crimson Rambler × Victor Hugo
Philippe Paulig	H P	Lambert	1908	Captain Hayward × Baroness Rothschild
Philippine Lambert	P.P.	Lambert	1902	Euphrosyne × Safrano × Dr. Grill
Phyllis.....	P.P.	Merryweather ..	1907	Seedling Mme. N. Levavasseur
Pierre Carot	H.P.	Levet.....	1878	Seedling Victor Verdier
,, Isambart	H.P.	Guatreau	1871	Seedling Triomphe de l'Exposition
,, Notting	H.P.	Portemer	1862	Alfred Colomb race
,, Wattinne.....	H.T.	Soupert	1901	Seedling Papa Gontier
Pink Cluster	N.	Chapeney	1810	R. moschata alba × R. semperflorens
Pinson.....	H.W.	Barbier	1908	R. wichuraiana × Souv. de C. Guillot
Pius X.	H.T.	Hildebrand	1905	Seedling Caroline Testout
Pom Pom	H.W.	V. S. Dep. Agr.	1910	Crimson Rambler × R. wichuraiana
Prebislav.....	H.T.	Jacobs	1901	Princesse de Sagan × Prince Camille de Rohan
Preciosa	H.T.	Vieweg	1896	Niphetos × Mme. Pierson
President Porcher	H.P.	Vigneron	1866	Seedling Triomphe de l'Exposition
,, Thiers	H.P.	Lacharme	1871	Seedling Victor Verdier
Pride of Reigate	H.P.	Brown	1884	Sport Countess of Oxford
,, ,, Waltham	H.P.	W. Paul	1881	Sport Countess of Oxford
Primula	P.P.	Soupert	1900	Seedling Mignonette
Prince A. de Wagram	H.P.	Cochet Sc.	1891	General Jacqueminot race
,, Boris	H.T.	Ketten	1904	Hofgartendirektor Graebner × Margherite di Simone
,, Camille de Rohan	H.P.	E. Verdier	1861	General Jacqueminot race
,, Engiebert Charles d'Arenberg	H.T.	Soupert	1909	Etoile de France × Richmond
,, Theodore Galitzine	Tea	Ketten	1898	Mme. Caro × Georges Farber
Princess Bonnie.....	H.T.	Dingee	1895	Bon Silene × William F. Bennett
,, Ena	P.P.	May	1907	Sport Mme. N. Levavasseur
,, of Wales	H.P.	Laxton	1871	Seedling Louise Peyranny
,, ,, Wales	H.P.	W. Paul	1864	Seedling Beauty of Waltham
Princesse Adelaide	Moss	Laffay	1845	A Moss × a H.B.
,, Anna Loewenstein ..	Tea	Soupert	1898	Chateau des Bergeries × Sylphide
,, Charles de Ligne	H.T.	Soupert	1902	Marquise Litta × Mme. Abel Chatenay
,, de Neapel	Tea	Brauer	1898	Duc de Magenta × Safrano
,, ,, Radziwill	Tea	Nabonnand	1880	Seedling Isabelle Nabonnand
,, ,, Sarsina	Tea	Soupert	1891	Mme. Lambard × Sulfureux
,, Elizabeth Lancelotti..	P.P.	Soupert	1893	Mignonette × William A. Richardson
,, Etienne de Croy	Tea	Ketten	1898	Comtesse de Labarthe × Mme. Eugénie Verdier
,, Henriette de Flandres	P.P	Soupert	1888	Mignonette × Marquise de Vivens
,, Josephine de Flandres	P.P.	Soupert	1887	Mignonette × Marquise de Vivens
,, Ma	Tea	Ketten	1899	Adam × Socrates
,, Marguerite d'Orleans	Tea	Nabonnand	1891	Papa Gontier × Isabelle Nabonnand
,, Marie A. de Luxembourg	P.P.	Soupert	1896	Seedling Mignonette
,, ,, de Roumanie	Tea	Soupert	1895	Mme. Nabonnand × Souv. d'un Ami
,, ,, Louise	H.T.	Welter	1909	Mme. Abel Chatenay × Johanna Sebus
,, ,, Mertchersky ..	H.T.	A. Schwartz	1902	Caroline Testout × Reine Emma des Pays-Bas
,, N. Troubetzkoi	Tea	Ketten	1899	Adam × Comtesse Riza du Parc
,, Stephanie	D.T	Levet.....	1881	Seedling Mme. Barthelemy Levet
,, T. Thurn et Taxis ..	Tea	Soupert	1897	Leonie Osterriett × Mme. Hoste
,, Vera Orbelioni	H.T	A. Schwartz	1908	Kaiserin Augusta Victoria × Senateur St. Romme
,, Wilhelme des Pays-Bas	P.P.	Soupert	1886	Mignonette × Mme. Damaizin
Principessa di Napoli	H.T.	Bonfiglioli	1898	La France × Captain Christy
Prinzessin L. Fürstenburg	Tea	Chalupecky	1908	Sport Mme. Lambard
,, Marie	H.T.	Lindemann	1908	Caroline Testout × Melanie Villermoz
Priscilla	H.T.	Henderson	1910	Kaiserin Augusta Victoria × Frau Karl Druschki
Professeur d'André	D.T.	Nabonnand	1902	Papa Gontier × Gloire de Dijon
Professor C. S. Sargent.....	H.W.	Hoopes	1903	R. wichuraiana × Souv. d'Auguste Metral
Psyche.....	M.S.	G. Paul	1899	Golden Fairy × Crimson Rambler
Purple East	M.S.	G. Paul	1900	Crimson Rambler × Beauté Inconstante
Queen Alexandra	M.S.	Veitch	1901	Crimson Rambler × R. multiflora
,, Beatrice	H.T.	Kramer	1909	Mme. Abel Chatenay × Liberty
,, of Edgely	H.P.	Flor. Exch.	1902	Sport American Beauty
,, ,, Queens	H.P.	W. Paul	1883	Maiden's Blush × Seedling Victor Verdier
,, ,, Spain	H.T.	Bide	1907	Seedling Antoine Rivoire
,, ,, Sweden and Norway..	Tea	G. Pau	1900	Innocente Pirola × Anna Olivier

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page* 231 *of our issue for May* 13.)

THE EDITOR'S TABLE.

REGELIO-CYCLUS IRISES FROM HAARLEM.

Mr. C. G. Van Tubergen, jun., sends flowers of this new race of Irises, which are very beautiful indeed, and which, no doubt, have a great future before them. Mr. Van Tubergen sends the following interesting particulars concerning these charming Irises: "I have much pleasure in sending you a box of cut flowers of my Regelio-Cyclus Irises. As you know, these are crosses between the Regelia group of Irises (Korolkowii, vaga, Leichtlinii, &c.) and the showiest Oncocyclus species, such as susiana, iberica and others. These no one can grow for any length of time, whereas the Regelias (seed parents) increase and flower wonderfully every year. The crosses have kept these free-growing qualities and bear flowers not much smaller than the Oncocyclus species. Many thousands of blooms were open in my nursery at the middle of May, and strong plants sometimes carry from five to seven flower-stems. These Irises require very porous sandy loam, with old (on no account fresh) manure, and must have a good addition of lime or marl. They want all the sunshine possible. A good plan is to plant them at the foot of a south wall on a raised bed in order to avoid stagnant water in winter, of which they are very impatient. As in our always moist Dutch climate the plants never die down entirely and would be green again at the approach of winter, we have to dig the plants up about the middle of July and keep them on an absolutely dry place until the middle of October, when we replant them again on fresh soil. We usually cover them with 2 inches of soil and have them slightly covered during winter, not to protect them from frost so much as to prevent our light sand being blown away."

SOME INTERESTING PRIMULAS.

Dr. MacWatt, Morelands, Duns, N.B., sends us flowers of the following species and varieties of Primulas: P. minima, biflora, Fosteri, muretiana, capitata, littoniana, muscaroides, cortusoides Morelands Seedling, Veitchii, bulleyana, beesiana, imperialis, Poissonii, rosea grandiflora and integrifolia. The flowers arrived in excellent condition, and were quite remarkable for the time of year.

SWEET PEAS FROM SCOTLAND.

We have received from Mr. C. Shaw, Boquhan Gardens, Stirlingshire, a box of handsome Sweet Peas. It is no easy matter to single out the best varieties from the scores that were sent, but we mention a few well-known favourites that were well represented, viz., Elsie Herbert, John Ingman, Sunproof Crimson, Edrom Beauty, Nora Unwin, Etta Dyke, Constance Oliver, Evelyn Hemus, Mrs. Hardcastle Sykes and Asta Ohn. The blooms were really splendid, and reflect great credit upon the cultivation given them.

SOME BEAUTIFUL FLOWERING SHRUBS.

We have received from Mr. Alfred R. Wallace, Old Orchard, Broadstone, Wimborne, some very showy flowering shrubs, all of which are worthy of extended cultivation. The following observations accompany the flowers: "A few of my rarer shrubs showed abundant flower-buds this summer; but we have had here two months of almost continuous drought, with intense heat and alternate cold, drying winds, most unfavourable for a good display of the flowers, which are all more or less withering before fully expanded, but I send you a few before they quite fade."

"*Escallonia organensis*.—This is a fine bush 6 feet across and 4 feet high, and is full of flowers for the first time, but sadly cut by the drought. It has stood near a south wall for five years and seems almost hardy. It was found by Gardner just below the top of the Organ Mountains on bare rock near Rio.

"*Feijoa sellowiana*.—This has stood two years quite uninjured in a sheltered corner. Its curious and handsome flowers expand the first day with deep blood red petals, which quickly curl backwards, showing the white under surface, which is of a very different texture from the upper; but when both are seen together the effect is very striking. This is a native of Uruguay and has an edible fruit.

"*Mitraria coccinea*, a charming dwarf Chilian shrub, is full of its bright scarlet flowers.

"*Sollya heterophylla* is loaded with its beautiful blue flowers. It covers several square yards on a south wall and seems quite hardy.

"*Psoralea glandulosa* is a neat shrub 6 feet to 8 feet high, apparently quite hardy, and very suitable for a sheltered border on account of its bright green, elegant foliage, blackish stems and neat but small blue and white Pea-shaped flowers. This is from Chile, and grows rapidly from seed.

"I have not seen any mention of the flowering of Escallonia organensis out of doors in England, but it seems nearly as hardy as the commoner species. I should be glad to know if any of your readers possess it or have seen it in flower.

"I have also Bouvardia triphylla, which has stood in a south border three years and flowers well, though it is cut down in winter. Abutilon megapotamicum, Sparaxis elegans and S. pulcherrima are also flowering well, and Abelia floribunda has been a mass of flower, though now quite over."

NEW PLANTS.

EREMURUS OLGÆ ALBA.—A valuable addition to the late-flowering section of these plants, the white form, so far as we remember, never having been exhibited before. The new-comer was staged as E. Setonii alba, but in point of fact is a white-flowered variety of the above-named species. The present plant, like the typical kind, also exhibited, was raised from seeds collected at an altitude of 7,000 feet in North Persia, and has the same glaucous leaf characteristics. Exhibited by The King's Acre Nurseries, Hereford.

Carnation James Quin.—A fancy border variety with buff ground and reddish markings. The form is excellent.

Carnation King George.—An exquisitely beautiful pure white variety which is practically faultless. This variety will be handed down to future generations as one of those specially selected and named by Her Majesty the Queen at the time of the Coronation from a basket of seedlings supplied by the raiser, Mr. Blick. It is nicely scented.

Carnation Dora Blick.—A remarkable variety of good form and much excellence, and in the terra-cotta class almost unique. Into the dominant colour-tone there is a strong suspicion of golden orange, which is very striking. These three excellent novelties came from the raiser, Mr. Charles Blick, Hayes, Kent.

Canna Frau E. Kracht.—One of the handsomest varieties we have seen. The colour is of that salmony rose tone which approximates to that of the popular Carnation Lady Hermione, and carries with it a refinement and beauty all its own. The truss is very fine, with a branching habit of flowering. From Messrs. James Veitch and Sons, Limited, Chelsea.

Carnation Mrs. Elliott Douglas.—A splendid yellow self, rich and deep in colour and of large size.

Carnation Mrs. Andrew Brotherstone.—A crimson fancy virtually, the petals being freely freckled with white. The flower is large and handsome, the petal texture excellent. These came from Mr. James Douglas, Great Bookham, Surrey.

Carnation Herbert Newman.—A white-ground fancy border variety of large size, the petals being striped with scarlet. Exhibited by Mr. A. F. Dutton, Iver, Bucks.

Rose Nerissa (H.T.).—The flowers are of large size and well formed, those fully expanded having a creamy ground, and shaded with delicate pink on the reflexing portions of the petals. In the youthful stage the pink colour is more pronounced, and doubtless under cooler weather conditions this would be enhanced. An excellent variety. From Messrs. William Paul and Sons, Waltham Cross.

Fokienia Hodginsii.—The first representative, we believe, of an entirely new genus of conifers, the small plants shown somewhat resembling Libocedrus. Its hardiness is a matter for doubt at the present time. Exhibited by Miss Weyburn, Barnet.

Plagianthus Lyallii.—Lovers of choice flowering shrubs will welcome the news that this showy and interesting New Zealand plant, regarded as of doubtful hard iness at first, has proved quite hardy in the open in various parts of Southern England; hence there are numbers of gardens in which it may figure in the near future. The plant is of the greater value at this time, when but few choice shrubs are to be seen in flower. The white flowers are produced in small clusters from the axils of the leaves, and depend on pedicels 3 inches or more in length. They are each about 1 inch across, and are rendered conspicuous by the anthers, which are sometimes golden or occasionally flushed with red. A valuable plant for the sheltered garden. Exhibited by C. J. Lucas, Esq., Horsham.

An award of merit was granted to each of the above.

Dendrobium Victoria Regina.—A very striking Dendrobium with numerous violet blue flowers. The species is rare, and the plant shown is said to be the finest in cultivation. It was exhibited by Sir Trevor Lawrence, Bart., and received a cultural commendation together with the high award of a first-class certificate.

The following varieties of culinary Peas received awards of merit after trial at Wisley, where they were inspected by a sub-committee on the 17th inst.: The Caithness and America, from Mr. Holmes; Eureka, King Edward and Matchless Marrowfat, from Messrs. Sutton and Sons; Bell's Premier, from Bell and Bieberstedt; and The Cottager, from Mr. Yates.

NEW FRUIT.

King's Acre Berry.—This is, in all probability, another of the Blackberry-Raspberry hybrids, of which a good number have been introduced of late. The fruit in question has the flavour of the Raspberry, and is a remarkably heavy cropper. The original plant is said to have been found in a Shropshire garden, and nothing is known of its hybridity. It was shown by The King's Acre Nurseries, Hereford. Award of merit.

The foregoing plants were shown before the Royal Horticultural Society on July 18, when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only; and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Specimen Polyanthuses (*Miss J. A. F.*).—The essentials to the production of good specimen plants are a cool, partially shaded situation, deep and rich moisture-holding soils, and an early seed-sowing. For such a purpose the seeds should be sown in March or April, transplanted into boxes or well-prepared nursery beds as soon as ready, and finally, in May or June, plant them out in a position similar to that suggested. The soil should have been well and deeply dug and freely manured, and if heavy and retentive, add leaf-soil and short manure freely about the root-fibres of the seedlings at planting-time.

Injury to herbaceous plants (*Mrs. H.*).—No fungus or insect was present on the pieces of plant sent. Has the soil sufficient lime, and is it properly drained?

Injury to Pelargoniums (*J. C. E.*).—No insect or fungus is present to account for the spotting and death of the Pelargonium leaves, and wind and rain are not likely to have caused it. The whole appearance suggests that they have been splashed with some poisonous substance. Has weed-killer been used near them? We suppose it is impossible for salt spray to reach them.

Sweet Peas for exhibition (*R. W. R.*).—It is possible that A. B. Essex was pulling the long bow when he spoke of the removal of fives and sixes. These only come occasionally in the most favourable circumstances, and the grower who secures a large percentage of fours is on the right road to championship honours. Water, feed and mulch the plants, suppress all laterals, and hose vigorously during the evenings of hot, sunny days.

Lily of the Valley (*Burton*).—The bed has, we imagine, become a mass of growth, leaving no room for development, added to which is the important matter of soil exhaustion. You can do nothing now but encourage by artificial or other manures—the drainage from the stables or the like—the best leaf-growth possible, and later on in October or thereabouts replant the bed. If a month prior to that time you will send us a reminder, we will give in detail how this work should be done.

Pelargoniums turning yellow (*A. B.*).—Judging by the leaves sent, there is something radically wrong in the treatment the plants have received, and we should say that the liquid manure has been much too strong for them. Liquid manure is a stimulant to be used on plants only when they are in good health and have exhausted a great deal of the food which was in the soil when they were first potted. If the roots of a plant are in a bad state, liquid manure or, indeed, highly-stimulating food of any kind, is then most hurtful to the plants.

Wallflowers (*Perplexed*).—The plants have made what in gardening phraseology is known as proud growth, a condition which, while savouring of goutiness, is opposed to flowering generally. Its actual cause is as yet undetermined, though it may be, to some extent at least, due to an early check to growth and a subsequent over-rapid growth in an endeavour to make up for lost time, and when the occasion of flower-spike formation in these plants had passed. In all probability, had the central growth been early removed, a minor flowering would have resulted at a later period, the plants being in other respects quite healthy.

Flowers for profit (*Constant Reader*).—You say nothing as to the size of the garden and many other things which are essential in the case, and with a solitary frame little can be done. You could, of course, raise such plants as Stocks, Asters and a variety of tender annuals in such a frame, while in the open you might sow Mignonette, Sweet Sultans, Sweet Peas, Poppies and Cornflowers, that would afford a good succession of flowers. In hardy plants, Daffodils, Tulips, Pyrethrums, Pinks, Moon Daisies, Spanish and Flag Irises, with Alstrœmerias, would be the best things. These plants, however, require space and some little knowledge of their treatment.

Sweet Pea attacked (*Mistress Mary*). — The Sweet Pea is slightly attacked on its roots by the fungus Thielavia basicola. Try what watering with a solution, 1oz. to a gallon, of a mixture of equal parts of sulphate of potash and superphosphate of lime will do.

Injury to Asters (*Cord*). — The Aster leaves show no damage that can be attributed to insects or fungi. They have been sprayed, apparently. Was the spray too strong? It is always well to send a whole plant when asking questions of this sort and when it is possible.

THE GREENHOUSE.

American Carnations (*G. M. S.*).—These are best propagated from cuttings from October to March, January and February for general purposes suiting quite well. When rooted, pot singly into 3-inch pots. In about six weeks time the plants will be ready for 5-inch pots, having in the meantime had their points removed to cause them to break. All this time the plants require greenhouse treatment and a temperature of about 50°. By mid-June the plants will be ready for their flowering pots, those of 7 inches diameter sufficing. At the same time, the plants should be stood on an ash-bed in the open and attention given to watering and staking. A good soil mixture for the final potting, as the last-named is called, would be composed of fibrous loam three parts, with manure and sand half a part each. In addition a 5-inch potful of bone-meal to each two bushels of soil should be employed. The plants require to be housed about mid-August. In all the stages it is important that the plants be kept quite free from the attacks of green fly and other pests.

Plants for exhibition (*Anxious*). — It is now too late to commence growing plants to be in time for a show on the date named, and, furthermore, you do not say anything as to the conveniences you have for growing plants, except that you have not much glass. As you are allowed to procure plants for the purpose, there are many subjects which can be obtained in good condition at that season. Among them may be mentioned Pelargoniums of different sorts, Fuchsias, Lantanas, Lilies of sorts, especially Lilium auratum, L. longiflorum and L. speciosum, Cannas, Campanula pyramidalis (the Chimney Campanula), and those drooping kinds, C. isophylla, C. i. alba and C. Mayii, Kalanchoë flammea, Exacum macranthum, Begonias of sorts, Francoas, Schizanthus, Lobelia tenuior, Achimenes, Carnations, Hydrangeas and other subjects. Of foliage plants available for grouping are Bambusa gracilis, Eulalia japonica variegata, Crotons, Palms, Ferns, &c.; while Panicum variegatum, Selaginella kraussiana and Isolepis gracilis are all good plants for the edge or margin of the group.

ROSE GARDEN.

Roses for hedge (*E. C.*).—You are well advised to replace the Privet hedge by one of Roses. As you desire the height to be about 4 feet, one of the best you could plant would be Zepherin Drouhin; but as you might prefer a variety of colour, we would recommend the following to be blended together, namely, Grüss an Teplitz, Blanc Double de Courbet, Mme. Isaac Pereire, Soleil d'Or, Hugh Dickson, Mrs. S. Clark and Frau Karl Druschki. On one side facing the lawn you could plant a row of any one of the lovely dwarf-growing Polyantha Roses, such as Petite Constant, Perle d'Or, Eugénie Lamesch, Baby Rambler, &c., which would give you a continuous supply of bloom from June to October. If you erect an iron fence, be careful to put some kind of woodwork near the iron, so that the Roses do not come in contact with the latter. Trench the land in October to a depth of 3 feet and add good manure liberally. Plant in early November at a distance apart of about 2 feet to 2 feet 6 inches. At pruning-time cut one or two of the growths in each plant close down to the base, but the others you may retain about 3 feet long.

Rose foliage injured by insects (*B.H.H*). —The foliage has been attacked by the Rose slugworm, the larvæ of a sawfly that causes endless annoyance to many individuals. This pest devours the upper skin and tissues of the leaf, which results in the disfigurement you allude to. In some gardens the insect is very abundant, and it is especially common on the hardier kinds. We have had that hardy sort Conrad F. Meyer, growing against a wall, almost ruined by the pest. This sawfly appears early in May, when the females lay their eggs in the midribs of the leaves. The larvæ are pale yellowish green, with a darker line down the back. The head is of an orange colour. When matured they fall to the ground and pupate in the soil in small cocoons, so that it is well to have as much as possible of the surface soil removed in winter and burnt, and fresh soil added to cover the roots. The insect can be killed by spraying the bushes with Hellebore wash, which is prepared as follows: 1oz. of freshly-ground Hellebore, 2oz. of flour and 3 gallons of water. The Hellebore and flour are mixed together with a little water and then mixed with the rest of the three gallons. It must be constantly stirred and applied as a fine spray. Nicotine wash is also a good remedy.

Marechal Niel infested with insect (*J. J. C.*).—The insect adhering to the wood is scale, a most troublesome pest. You should wash the stems of the Rose with paraffin emulsion, Abol, or some other good insecticide. There is no known cure for canker. As it appears near the ground, you could heap up some soil over the affected parts and probably induce new roots to form.

Rose foliage blighted (*J. V. M. and Mrs. H. C.*).—The plants have been badly infested with the larvæ of the Rose slugworm. This pest usually appears early in May, as soon as the foliage unfolds, and if Hellebore powder is dusted on about twice at intervals of five or six days, the pest is considerably checked. You had better cut off the worst of the foliage, and in midwinter have the surface inch of soil removed and burnt, which will destroy many of the insects in their dormant state.

Treatment of blind Rose shoots (*T. W.*).—We do not know how you can tell a shoot is blind in the spring unless you refer to pot-grown plants. If so, we should advise you to cut them back to within 5 inches or 6 inches of their base. You would then, if the Roses are perpetual-flowering kinds, obtain new growths that would most probably produce bloom. Blind wood, both upon indoor and outdoor Roses, is indicative of a want of ripening, and to obviate this you must endeavour to help the Roses to become well matured by affording plenty of air when they are completing their growths, and also to withhold water for a time.

Rose buds damaged by insects (*H. P. S*).—We think you have been troubled with the Rose weevils. You should take a lantern at night and search for the pests. Spread a cloth beneath the bush or standard and give it a violent shake. If you find any weevils, despatch them by putting them into hot water. A board covered with some fresh tar is also a good trap for them. Earl of Dufferin is rather a bad Rose to open freely. If you could protect the buds from heavy dew and rain, you would succeed, we think, in assisting them to unfold. Thinning their numbers would also help. Ofttimes these dark Roses will not open owing to too many buds being upon the trees.

Roses in conservatory unsatisfactory (*L. H.*).—We should think the failure was owing to the plants. Probably they were unhealthy specimens, with very poor roots, otherwise they should have grown better in the house. It is always best to plant good pot-grown plants whenever you desire to force Roses; they then have a ball of earth to support them at once. If you can get the plants to grow, we advise you not to trouble about bloom for a year or so. You will be sure to get bloom if you can obtain nice young wood. Try keeping the house close and give good syringings on bright mornings. The mildew may be caused by over-watering. Syringe well with Jeyes' Horticultural Wash or Cyllin Soft Soap Wash. To make the plants start into growth, bend them over in a half-moon form and keep them well syringed.

KITCHEN GARDEN.

Vegetable crop for winter and spring (*Snorter*).—As your ground is rich and shady, we should plant the back of it with Brussels Sprouts. These will come in in early winter and last in condition well into May. They always command a fair price, and the crop is seldom a failure. It is too late to sow seeds of these now. You can buy the plants cheaply, and the sooner they are planted the better crop you will have. The rows should be 2 feet apart, and the plants 18 inches apart in the row. Spinach is another crop which would succeed well on such land, and would give a good supply during winter and spring. The best time to sow this for a winter and spring supply is the first week in August. The large, round-leaved variety is the best. The rows should be 15 inches apart and the plants when thinned 5 inches apart. Parsley also would be a useful crop, and if protected during hard frost in winter it often commands a high price in spring. The common form is the hardiest.

Injury to Tomatoes (*Constant Reader*). — The Tomatoes are affected with black spot. Remove the diseased fruits and burn them immediately. Spray the remainder with a solution of 1oz. of potassium sulphide in three gallons of water. Take care that the water supply is regular, and now and then give a little solution of sulphate of potash so as to avoid cracking the skin as far as possible.

Tomatoes for inspection (*Swift*).—The Tomato is affected by the disease called black stripe, which is attributed to the fungus Macrosporium solani. Diseased portions of the plant should be removed as carefully as possible and burned, and the plants sprayed with Bordeaux mixture, or with potassium sulphide, at the rate of 1oz. to three gallons of water. The same disease occurs on the fruits, forming the black spot.

Peas for inspection (*A Reader, A. C., and Others*).—The culinary and Sweet Peas sent have their roots infested by the fungus Thielavia basicola, and this is the cause of the trouble. Possibly they would make sufficient recovery if watered or manured with super-phosphate and sulphate of potash. It is unlikely, however, that they will make a complete recovery. Little is known regarding preventive measures short of sterilisation of the soil, but it is certain that it is more frequent where regular rotation of cropping is not practised.

Various subjects (*J. E. F. G.*).—You may remove Rhubarb plants, if done with care, at any time in the autumn, even if all the leaves have not died away. Do not cut these off when you transplant the roots, but leave them on to die away naturally. Before planting, have the ground deeply worked and well manured. Horseradish is best lifted and replanted after the leaves have died down; but if you must lift your roots before that is the case, get them out as long as you can without bruising them, and have them laid in fairly close together in your new garden until the leaves die away naturally. Then lift the roots and with a long dibber plant in ground that has been prepared as for Rhubarb. 12 inches apart each way. If the pieces are short, let the tops be a few inches below the surface; if long, let these be just buried. Give a liberal soaking of water in the summer to secure strong roots.

FRUIT GARDEN.

Injury to Peach tree (*R. W.*).—If you look at the base of the shoot of the Peach tree you will probably find it is gumming. Cut it out completely and paint the wound with some antiseptic. There is also a trace of shot-hole fungus at work. The best spray to use against this is ammoniacal copper carbonate.

Disease on Cucumbers (*C. L. de Troyer*).—It is difficult to say in the absence of specimens what the disease of the Cucumbers really is; but from your description we should judge it is probably due to a fungus, a species of Glocosporium. It would be best to remove all the diseased fruits and burn them, and spray the remainder of the plants with a solution of potassium sulphide (liver of sulphur) at the rate of 1oz. to three gallons of water.

Leaves of Plum trees for inspection (*T. M.*).—The tree has been attacked by the winter moth and by the Plum leaf-curling aphis, and it is now too late to do anything to remedy the damage done. The caterpillars of the winter moth have by this time left the tree, and probably most of the aphides have gone too. In these attacks every effort should be made to destroy the pests upon their very first appearance in the early spring. If you find aphides still about, you should spray with a nicotine solution.

Pear trees not fruiting (*M. H.*).—The best thing to do is to dig out a trench round the trees in November at a distance of 3½ feet from the stem of the trees. Let the trench be 2½ feet deep. Cut back with a sharp knife all the roots you come in contact with to the side of the trench nearest the tree. Fill up this trench with turfy loam of a heavy texture, adding to every barrowload of it a peck of old mortar rubble broken to the size of a pigeon's egg, half a gallon of bone-dust, the same of lime, and mix well together, treading the soil firmly down into the trench. A great mass of new fibrous roots will be emitted into this turf from the cut-back roots next summer, with the result that plenty of fertile fruit-buds will be formed and the trees made fruitful in the course of two or three years' time.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

HARDY BULBS FOR PRESENT PLANTING.

THE charm and beauty of a spring garden are intimately associated with bulbous plants. To these we are indebted for varied and brilliant colour, and many are richly fragrant, so that without bulbous plants the spring display in a garden loses much in interest and beauty. Apart from Tulips, Hyacinths and those subjects that figure largely in ordinary planting, there are many beautiful bulbs that appeal to us most when planted under less formal conditions. Unfortunately, to these we cannot always give the prominence we afford the former, but in most gardens there are positions where colonies of bulbous plants may be introduced with good effect.

One would naturally select the rock garden for bulbs that are rare, fragile, or precocious in their time of flowering, as here the conditions are most favourable, the rocks conserving the heat and also affording shelter to the early flowers. Among the miniature forms of Narcissus to be represented are all the forms of Bulbocodium (Hoop Petticoat Daffodil), triandrus (Angel's Tears), minimus, cyclamineus and Johnstonii Queen of Spain. Each differs from its neighbour in some exquisite detail, while all succeed if firmly planted in light soil in well-drained sunny spots with a surface carpet of some low alpine plant. Reliable kinds of bulbous Irises include Danfordiæ, golden yellow; Heldreichii, lilac brown; Histrio, sky blue; histrioides, bright blue, spotted; and reticulata, violet blue. All are easy to grow and flower during the first three months of the year.

The American species of the Dog's-tooth Violet, or Erythronium, are also best on the rock garden, and with their fair cousins the Dodecatheons succeed in any cool soil to which some peat is added before planting, and from which lime is carefully excluded. Selected forms of the Wood Anemone, such as A. nemorosa robinsoniana and Blue Bonnet, prefer a cool soil that does not dry out too readily; but species like apennina and its Grecian form, blanda, are most effective when planted in quantity. Both kinds succeed in ordinary shrubbery beds or along the margins of woods, where they spread into a carpet of rich leafage and blossom.

Many species and varieties of Crocus, Chionodoxas, Galanthus and Scillas may also be included in the rock garden; but wherever space admits they are much more effective planted in informal drifts in grass; and provided the soil is of average depth and quality, they rarely fail to increase, calling for little further attention. Muscaris are not planted so freely as they merit. In the variety Heavenly Blue we have one of the richest blue flowers of spring. Botryoides albus when in flower resembles stems threaded with fairy pearls. Comosa and plumosa have elegant tassel and plume-like flower-heads. An excellent subject for shallow limestone soil is the Winter Aconite (Eranthis hyemalis). It succeeds under the dense shade of Beech trees, and carpets the bare earth in January and February with luxurious green foliage and flowers of a bright buttercup yellow. Leucojums, or Spring Snowflakes, with drooping bell flowers, suggestive of a Snowdrop; Bulbocodium vernum, an old-fashioned Colchicum-like plant with rosy flowers; and Sanguinaria canadensis, the American Bloodroot, a plant with pretty white Crocus-like flowers, are worthy of much wider recognition in the spring garden, as they call for no special cultivation, although they are always seen to the best advantage in grass.

Success with spring-flowering bulbs depends to a large extent upon careful choice and preparation of the site, and also in some measure on early planting. Few bulbous plants are benefited by prolonged exposure to the air, and should, therefore, be planted as soon after receipt as possible, particularly those not strictly bulbous, as, for example, the warty tubers of Anemone. Deep working of the soil is advisable for all bulbs cultivated in beds, borders and the rock garden, in each instance adding suitable components in order to lighten or render the soil more retentive as the case necessitates.

Shallow planting must always, with the exception of the Crocus, be guarded against, as even in the case of small bulbs like Snowdrops and Glory of the Snow experience dictates deep planting of from 4 inches to 6 inches, from which the best flowers are invariably produced. There is also the class of bulb to consider in planting, and as flowers are the objective, it is advisable to purchase first-size bulbs only from a reliable firm, as such can be depended upon to give good blooms the first season. T. S.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

August 7.—Flower Shows at Bishop's Stortford, Mansfield, Andover and Epsom.

August 8.—Leicester Flower Show (two days).

August 9.—East Anglian Horticultural Society's Meeting; Royal Berkshire Horticultural Show; and Brecon Horticultural Show.

August 10.—Taunton Deane Flower Show; Sevenoaks Flower Show (two days); and Société Nationale d'Horticulture de France Exhibition at Paris.

Our Special Daffodil Number.—Owing to the many requests we have received from readers for a Special Daffodil Number, we have decided to devote the greater part of our issue dated August 19 to this flower. The Daffodil has made such enormous strides during recent years that it is now to be found, in some form or other, in practically every garden in the country. As some of the writers of the articles for this Special Number point out, it is a flower for the small as well as for the large garden, for town as well as for country, and its value for forcing into flower early in the year can hardly be over-estimated. The following, among others, have kindly written articles for this number: Mrs. C. M. Hancock, the Rev. J. Jacob, Brodie of Brodie, Colonel the Hon. S. Stapleton-Cotton, Messrs. J. Duncan Pearson, F. Herbert Chapman, W. A. Watts, W. F. M. Copeland and C. Lemesle Adams. The black-and-white illustrations will be of more than usual interest, and a coloured plate of new Daffodils will be included. As we anticipate a large demand for this enlarged and unique issue, readers are advised to order in advance any extra copies they may require. The price will, as usual, be one penny.

Trials of Peas at Wisley.—A sub-committee of the Royal Horticultural Society's fruit committee visited Wisley recently and made the following recommendations for awards, which were approved by the fruit committee on July 18 and forwarded to the Council, who granted the same: Awards of merit to culinary Pea America and The Caithness, from Mr. Holmes, High Street, Tain; Eureka, King Edward and Matchless Marrowfat, from Messrs. Sutton and Sons, Reading; Bell's Premier, from Messrs. Bell and Bieberstedt, Leith; and The Cottager, from Mr. S. Yates, Manchester. A similar award was also made to the King's Acre Berry, from The King's Acre Nursery Company, Hereford.

Awards to Sweet Peas.—A sub-committee of the Royal Horticultural Society's floral committee met at Wisley on July 14 and made the following recommendations for awards to Sweet Peas, which were approved by the floral committee on July 18 and forwarded to the Council, who granted the same: Awards of merit—Helen Pierce, Marie Corelli, Nubian and Queen of Spain, all from Messrs. Dobbie and Co., Edinburgh. The following were highly commended for garden decoration: Aurora Spencer, Princess Victoria (award of merit, July 9, 1907), Ivanhoe (award of merit, June 20, 1910), Elsie Herbert (award of merit, July 9, 1907), Dorothy Eckford (award of merit, September 2, 1902), Gladys Unwin, Isobel Malcolm, Mrs. Collier, Lady Althorp, Asta Ohn, Etta Dyke, Elfrida Pearson (award of merit, July 19, 1910), Apple Blossom Spencer, Tennant Spencer, Dobbie's Sunproof Crimson (award of merit, June 21, 1910) and Countess Spencer (true).

Blue Couch—a new lawn grass.—In the current issue of the *Kew Bulletin* a very favourable report is furnished on the Blue Couch Grass (Digitaria didactyla) by Mr. Ernest A. Bonney of Longueville, near Sydney, a gentleman who has had very considerable experience in regard to bowling greens and croquet lawns: "After an experience of five or six years of this Grass on my croquet lawn at Longueville, on the Lane Cove River, my opinion is that it is much more suitable for bowling greens and croquet lawns in the coastal districts of New South Wales, especially in loamy or sandy soil, than the Couch, which is so generally used around Sydney. . . . My own lawn was made about nine years ago in dark sandy soil, the surface of which contained a considerable quantity of decayed vegetable matter. . . . About a fourth part of the lawn was turfed, and the remainder planted with Couch. About three years afterwards I noticed the Blue Couch, but do not know where it came from, as I have not seen it about Longueville. It gradually spread, and now covers an area of 300 square feet, and is continuing beyond the boundary of the playing area, where it has an opportunity of running to seed. . . ."

The Perthshire fruit trade.—The position of the fruit trade at Blairgowrie is well described as unprecedented, on account of the small crop of Raspberries, owing to the dry season and the demand from preserve manufacturers, who waited in the hope of lower prices and find it impossible to purchase unless at a very high price. Some of the growers who contracted early in the season at a low price will suffer severely, as in more than one case the prices they have had to pay for a sufficient quantity to make up the contract have been more than double what they contracted for. Raspberries have been sold as high as £45 per ton, while it is believed that the price of £40 several years ago was unprecedented until now in the history of the fruit-growing industry since it assumed its present importance in Perthshire. The poor crop has also had a serious effect on the pickers.

Plant-collectors in the Balkans.—When travelling recently in the Balkan Mountains in search of native plants, Mr. C. F. Ball of Glasnevin Botanic Gardens and Mr. Herbert Cowley of THE GARDEN were presented to His Majesty the King of Bulgaria. The King, who is himself an enthusiastic collector and possesses a representative collection of living plants of the Balkan flora, was greatly interested in the travellers, and very thoughtfully provided them with every facility for bringing their journey to a successful issue, placing at their disposal a special railway carriage for use so long as they remained in the country. Accompanied by Mr. A. Delmard, Director of the Royal Gardens of Bulgaria, the party made an ascent up Mount Vitosh, near Sofia. A number of interesting plants were collected here as well as in other parts of the Rhodope Alps and in the neighbourhood of the Shipka Pass, where the party was guided by Mr. Pierce O'Mahony. Near to the Shipka Pass a wonderful floral sight was seen in large quantities of Haberlea rhodopensis growing on shady banks and flowering profusely. Among other plants noted were many Primulas, such as minima, frondosa and decorum, Soldanella pusilla and montana, Geums coccineum, bulgaricum, rivale and montanum, Pulmonaria rubra, Geranium macrorhiza, Pyrola uniflora, Dianthus microlepis and D. m. alba, Lilium Martagon, Pinus Peuke, Saxifragas sancta, rotundifolia and others, Gentianas asclepiadea, lutea and verna, Aquilegia aureum and Campanula velutina. The last-named plant was frequently to be seen clinging to the face of vertical rocks by means of its stiff, wiry stems.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Daffodil Crœsus.—I fear an expression I made use of in THE GARDEN of April 22 has led certain readers to think that Crœsus changed hands this spring. This, however, is wrong. A few bulbs have been sold, but the main stock of this magnificent variety still remains in the hands of Mr. A. M. Wilson of Shovell, near Bridgwater. It will not surprise Daffodil people to learn that it is listed at £30 a bulb.—JOSEPH JACOB.

Colour of the Lyon Rose.—On learning that this charming variety has, during the present season, been in numerous instances awarded the prize in the section open to yellow Roses, I began to question the correctness of my eyesight, for, at least in my opinion, it is totally out of place there. True, I cannot in any way claim to be an authority on Roses; but, still, I think I can distinguish a yellow flower when I see one, and a yellow bloom of Lyon has certainly not, as yet, ever come under my observation.—H. P.

The Fritillary.—I have read with much interest your correspondent "F. J. F.'s" notes on the Fritillary in THE GARDEN dated July 29. It would, perhaps, be truer to say that the Fritillary is local rather than that it is rare. All along the Upper Thames, in the meadows fertilised by the winter floods, it grows profusely. The school-children at Buscot and Kempsford gather great bunches of the Snake-flowers, as they are called, about Eastertide. It is a plant much honoured by Oxford men; witness Matthew Arnold's lovely lines:

"I know what white, what purple fritillaries,
The grassy harvest of the river fields
Above by Eynsham, down by Sandford, yields."

By all means let the superstition that you cannot transplant the Fritillary be encouraged! I have grown it, however, in a Gloucestershire garden, and it has made itself quite at home in the "good red earth" of Devon.—C. S. G.

Tricuspidaria hexapetala.—This beautiful shrub has an alias. Some people call it Crinodendron hookerianum. Although only a shrub in most gardens, I saw this year several specimens in Guernsey that had grown into small trees. It is a beautiful plant, not only on account of its striking foliage, narrow, pointed and of the deepest green, but specially on account of its long, pendent flowers, wax-like and crimson. These flowers are most attractive and handsome. There is one strange peculiarity about the plant: it begins to form its bloom-buds for quite eleven months before they reach the flowering stage. Thus, one of my plants was in full flower in June last, and on July 4 I noticed the tiny beginnings of next year's flowers. They go on gradually increasing in size during the autumn, winter and spring until June arrives, and then there is no more beautiful plant of the kind. I am not aware of any other shrub that begins to form its flowers so long a time before it blooms. There is a curious instance of plant-life in British botany; it is the strange case of the Moonwort (Botrychium Lunaria). While the plant of this year is in full growth, it contains within the rootstock the frond of next year's Fern.—(Rev.) WILLIAM W. FLEMYNG, *Coolfin, Portlaw, County Waterford.*

The leaf-cutter bee and Roses.—It may be of interest to your readers to know that a piece of Rose leaf cut out and being carried by a leaf-cutting bee I captured recently measured three-quarters of an inch in length and three



ELWAY'S PERFECT MODEL

Hudson & Kearns, Ltd., London, S.E.

eighths of an inch in breadth. The piece of leaf was, I thought, unusually large and of quite unusual shape, as this bee generally cuts circular holes in the leaves.—(Rev.) C. W. Dixon.

Hints for advertisers.—I have received so much consideration from professional horticulturists that I wish to offer one or two kindly criticisms. I think in some cases more care is needed in recommending certain plants. For instance, I was induced to plant Polygonum sachalinense in my garden, and ever since I have been rooting it out and cannot get rid of it. The Strawberry-Raspberry I see greatly praised; but I agree with my man that it grows like Twitch, and to the members of my household the fruit is absolutely disappointing. Again, I am invited to buy seeds—to find that the season for sowing is past. May I suggest to those who advertise plants that in the case of seedlings the post is far better than rail. I had some last week by rail. They had been a long time on the journey, and when I received them there were more than half of them dead and the rest in a miserable condition. Sometimes a grower surprises me by a little act of courtesy. I received a number of rock plants, and to my pleased surprise, instead of the names being scribbled on a piece of wet paper, each little plant had its wooden label tied to it. This made planting pleasant and warmed my heart. On the other hand, I have paid £5 for a parcel of plants, to find the names written on the wrapping paper. In these days it is the careful attention to such details that increases business.—J. V. M.

A simple method of watering.—During the recent dry weather I have extended the use of an experiment I made on a small scale last year. So few people appear to know of it and so many are struck with its simplicity and obvious usefulness that it may interest some of your readers who take pleasure in their gardens and desire to benefit their plants in the minimum of time and with a view to avoiding a waste of water. My garden is on the slope of a hill, on the sandy heath of Dorsetshire, but I have succeeded in growing some wonderful Roses, flowering shrubs and a variety of creepers on my pergolas, including quite an assortment of the Vine tribe. I do not allow unused flower-pots to lumber my potting-shed. I use them all, large and small; for choice, those 6 inches in diameter. These are sunk into the ground to a depth of 4 inches; first, because they can and should be used as the vehicle for liquid manure, and 4 inches is the depth at which the bacteria, according to Professor Bottomley, "most increase and multiply"; secondly, the water at this depth reaches both the upper and lower roots; thirdly, the earth is not so liable to be washed into the flower-pot and block the hole when water is applied from a short distance with the hose. I place these flower-pots about 8 inches to the south of the stem of the plant, wherever possible, this being the direction in which the roots run; but, above all, place the plants or shrubs on sloping ground, so that the water gravitates to the roots. In my Rose-bed I place one 24-inch flower-pot to four or six or more Roses, according to their size. They are not so unsightly as thirsty plants would be, and throughout all this dry weather, although I have had many hundreds of Roses, creepers and other plants, I have not lost one. The method is a novel one, and as it has proved so efficient this summer it can be recommended with every confidence. The work of watering is very quickly done. The effect is far more lasting and water is not wasted.—A Lover of Roses.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

CALANTHE VEITCHII.—Being well rooted, these plants will now require plenty of water at the roots. Stimulants must also be given. Cow-manure in liquid form makes an excellent stimulant for these plants. Keep them growing freely near to the glass and see that they have plenty of room, so that light and air may penetrate freely about them.

Schizanthus.—This has become almost indispensable as a spring-flowering plant. Seeds may be sown now either in small pots or pans. If sown in the former, a few seeds should be sown in 3½-inch pots. Slightly cover the seeds with fine soil, and place the pots in a warm house till germination takes place. They must then either be placed in a cold frame or a cool house near to the glass. Thin the seedlings to two or three in each pot and pay timely attention to staking. Place them in larger pots when ready and give them a fairly rich compost. Keep them growing near to the glass in a cool temperature during the autumn and winter. Only sufficient fire-heat to keep out frost will be necessary.

Begonia Gloire de Lorraine.—These plants will require attention in staking and tying, as they are now growing rapidly. This Begonia is well adapted for growing in hanging baskets. It is not too late now to place some of the latest plants into baskets. They will soon become established and will flower during the whole of the winter. Pot on the latest plants and keep them growing in a warm, moist atmosphere. A good batch of plants should be grown for flowering in 3-inch pots. These will be found of great value for decorative purposes.

Freesias.—A batch of these should be potted now for early flowering; 5-inch pots are the most convenient in which to grow these bulbs. From six to eight bulbs, according to their size, may be placed in each pot. The bulbs should be as near one size as possible. A compost of loam, leaf-soil and sand will be suitable. Cover the bulbs with about an inch of soil. When potted, place them in a cold frame and cover with ashes.

Fruit Under Glass.

Early Vines.—The continued hot, dry weather will have favoured the ripening of the wood. It will be too early yet to shorten the main shoots, but lateral growths must be removed. Now is a good time to overhaul the borders of early Vines. If the crop has been disappointing, the cause can invariably be looked for at the roots. The border, no doubt, will have become stagnant and sour, a condition which is against the production of satisfactory crops. If this is the case, the roots should be entirely lifted and replanted in a new border. It should be seen to that the drains are clear, and ample drainage must be provided so that water may pass away freely. The rooting medium should be composed of the best loam procurable, plenty of old mortar rubble, wood-ashes and crushed bones. The border must be thoroughly soaked with water when completed. Syringe the Vines three or four times a day and shade them for two or three weeks.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Plants Under Glass.

Liliums.—For an autumn display in the conservatory nothing can excel the various forms of Liliums, and these can easily be had in flower over quite a long period if a portion has been pushed on early; while others are kept back by growing them in a cool and shady position. Lilium auratum and its varieties virginale, platyphyllum and rubro-vittatum are invaluable for decoration, as well as the several varieties of lancifolium or speciosum, while longiflorum and Harrisii provide flowers of the purest white with a delicious fragrance. Most of the above can also be obtained as retarded bulbs, which extend the flowering season almost indefinitely. Liliums when pushing up their flower-stems should be given a top-dressing of good loam mixed with some well-decayed cow-manure, into which roots from the base of the stems will penetrate freely.

Lily of the Valley is another subject which lends itself admirably to forcing, and is always in request. Retarded crowns can be purchased almost throughout the year, and will flower in about three weeks from the time of potting. On arrival they should be immediately potted up, about a dozen crowns in a 5-inch pot. Give a good soaking of water and stand the pots in a cold frame shaded from strong sunshine for a few days, after which they may be forced in a temperature of 60°. Partial shade should be afforded until the spikes appear, then gradually give an increasing amount of light.

Roman Hyacinths and other early-flowering bulbs should be potted up as soon as they come to hand, and the pots plunged until well rooted. Freesias may be used year after year for forcing if they have been given a suitable period of rest; they should be shaken free of the soil and the largest bulbs potted into 5-inch or 6-inch pots, using twelve to eighteen bulbs for each pot. A mixture of light loam, leaf-mould and sand suits the Freesia. When they are potted, they should be placed in a cold frame on a bed of ashes near the glass, giving only sufficient water to keep the soil from getting dust dry. When the shoots begin to push through, the bulbs should be given plenty of ventilation, and on the approach of winter they should be removed to a house secure from frost, from which they can be taken in batches as required for forcing.

Begonia Gloire de Lorraine.—Plants raised from cuttings taken in spring should now be ready for their final potting. The soil should be lumpy and porous, and a small quantity of manure from a spent Mushroom-bed will be found of great assistance in promoting a luxurious growth. See that the young plants are well soaked with water before turning them out of the pots, and handle with great care so as not to damage the roots. A thoroughly moist and even temperature should be maintained and the plants shaded from bright sunshine. As soon as the pots are well filled with roots, give regular applications of weak liquid manure, and pick out flower-buds as soon as they appear if the plants are likely to come into flower earlier than they are required. If small plants in flower are required for table decoration, cuttings taken now from the base of the old plants and placed singly in small pots will root readily and furnish valuable decorative plants during the winter.

Thomas Wilson.
(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FLOWER GARDEN.

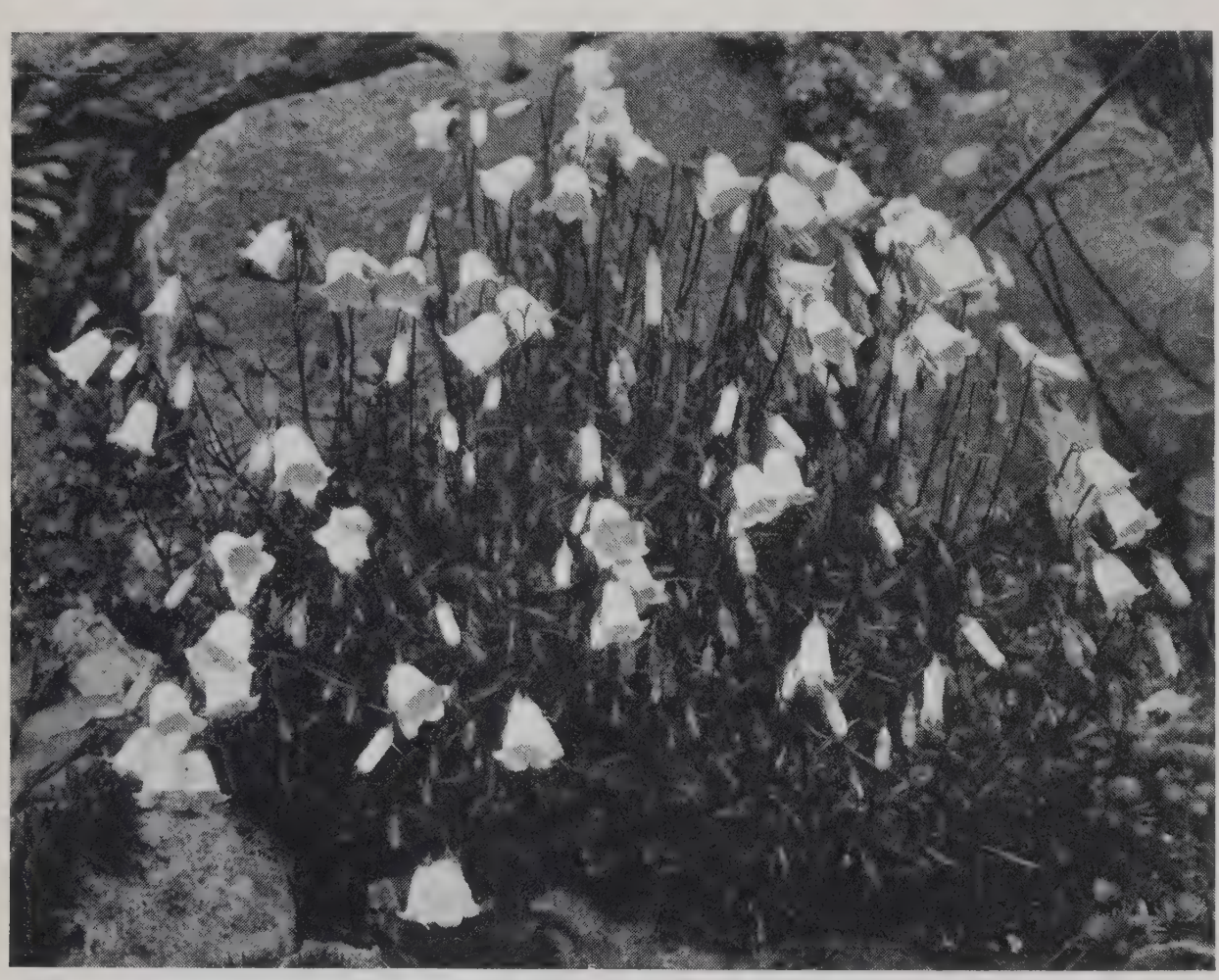
CAMPANULA PUSILLA ALBA.

WHEN spending a holiday recently in the neighbourhood of Meyringen, in the Bernese Oberland, the Campanula most frequently met with was C. pusilla (syn. pumila), growing in every crevice of the rock face where it was sufficiently perpendicular to offer but a scant hold for other subjects, and very pretty it was with its myriads of nodding blue bells mantling the cliff with sheets of colour.

Even more lovely than this species is its beautiful white form, C. pusilla alba, which retains all the vigour of the type with the enhanced beauty of its pure white flowers. No special treatment is required in the garden, and it is a particularly happy subject for a position which is difficult to cover, such as a rocky or stony place, because if the plants are put in as near as possible to the desired spot, they will produce underground runners, which come through in the most surprising manner, and the original plants can then be cut away. Although this gives the suggestion of its being a ramping plant, I can assure readers that it is quite a safe one to introduce, as it is easily disposed of should it encroach on other subjects, though most will find (within reasonable limits) that it is too pretty a plant to be hastily displaced. The natural manner in which it "sheets" the alpine garden with its pure blossoms through July and August renders it a valuable aid at a time when many flowers are on the wane.

The illustration shows a more or less solitary tuft in flower, and hardly suggests the way it mantles the rockery when "at home." If such were shown, the scale would be too small to bring out the beauty of the individual blossoms. This Campanula, though by no means fastidious, seems to prefer gritty soil and an open position. Both this white form and its type are admirably suited to growing in pans, and a charming effect is obtained if the pan is made up of an equal proportion of each colour interwoven. Care should be taken so that during the winter it is not accidentally destroyed, since it shares with so many of this genera the habit of dying right down. If rapid propagation is required, every single piece from a tuft may be dibbled in over a clear space during May, and if tended for a fortnight, to prevent drying up, will make a charming flowering patch later in the same year.

Woodford, Essex. REGINALD A. MALBY.



CAMPANULA PUSILLA ALBA IN A GARDEN NEAR LONDON.

OUR GARDEN FLOWERS IN CALIFORNIA.

(*Continued from page v. last week.*)

EVERY lover of bulbous plants knows California as the home—though not the exclusive home—of Brodiæas and Calochorti. Next to Eschscholtzias and Lupines, Brodiæa capitata is the universal flower of the State. In the first Californian hotel I entered, a hundred little breakfast-tables had each its great bowl of fresh Brodiæas or Eschscholtzias. The rich dark violet heads of B. capitata need to be thus set up in masses to produce their proper effect. But B. capitata is not the most beautiful of the genus. The first place must be given to B. laxa, known in its own country as Ithuriel's Spear ("Paradise Lost," Book IV.), or, more prosaically, as Grass Nut, because of the edible corm. When seen for the first time, waving its lavender bells in the breeze, no name seems too poetical for it. Of the other Brodiæas, and there are several, I will only mention B. volubilis (syn. californica), which, after climbing hither and thither with a stem 6 feet or 7 feet long, emerges unexpectedly out of a neighbouring bush with a great umbel of rosy pink blossoms.

Of the Calochorti I saw only two. First, C. venustus in its pure white form, with claret blotches, disclosed its beauty after long search amid Prickly Pear on the hills of Santa Catalina. Later on I found another form, flushed with pink, growing freely in the long grass at Nordhoff. C. albus, one of the Globe Tulip class, with delicately fringed petals, was abundant in the valley of the Merced on sandy soil. Of Irises I saw only one. As we slowly ascended Mount Tamalpais, by what is fairly described as the crookedest railway in the world, a white Iris at once showed itself. Further up it became blue, and further still pinkish mauve. Then I was able to recognise it as Iris Douglasii, an old and valued inhabitant of the home garden. Everywhere on the great mountain it peeps out under the "chaparral," the name given to the various medley of shrubs which clothe the vast mass of rock and leave no space bare even to the summit.

Though I am straying from my proper subject, I must mention that in the wet ditches of Louisiana I saw our rather uncommon Iris cupreus, evidently a thorough marsh plant. There is a familiar genus of the Iris family which is inadequately represented in English gardens. Sisyrinchium bermudianum (syn. angustifolium) is just worth growing, but S. bellum, which botanists seem to regard as the same thing, is a glorious sight when it positively covers acres of Californian meadows with all its blue eyes wide open to the sun. Its much more vigorous habit of growth and its far brighter tint may, perhaps, be due to the climate; but it would be worth while to try if it would retain these characters in English soil. This difference between species of the same name as they grow in England and in America may be illustrated by many examples. I will add one from Vancouver and one from the Rocky Mountains. At Oak Bay, near Victoria, there were glades covered with a Camassia, known there as Leichtlini. But, unlike the gawky Camassia of English nurseries, this was a neat little plant 8 inches or 9 inches high, with a very few large, dark blue starry flowers, remaining open together instead of opening first one and then another. It grew mingled with an abundance of an Erythronium, known there as the Easter Lily, a cream-coloured form with a central yellow blotch. The second illustration of the difference between flowers in their own home and in England shall be another Erythronium. All travellers in British Columbia in early spring will remember the glory of Erythronium giganteum, tall, many flowered, with brilliant yellow petals and broad, bright green leaves, covering the moist slopes so completely that one must tread down their loveliness to pick a handful. Its name, the Snow Lily, tells truly how it springs up close to the melting snow. I have never felt interested in the pallid though much-advertised forms which one sees in English gardens, and have always preferred the common European species, E. Dens-canis, to any of them. I suppose the truth is that E. giganteum in its strength and beauty cannot be had without the snowy slope to which it belongs.

I will add a few very inadequate remarks on the flowering shrubs. The first place must be given to the various species of Ceanothus, varying in habit from tall bushes, 10 feet or 12 feet high, to dwarf spreading shrubs, and in colour from white and grey to dark blue. They cover and colour the slopes of the coast range. The effect at a distance has been compared to the misty smoke of distant camp fires. The most beautiful

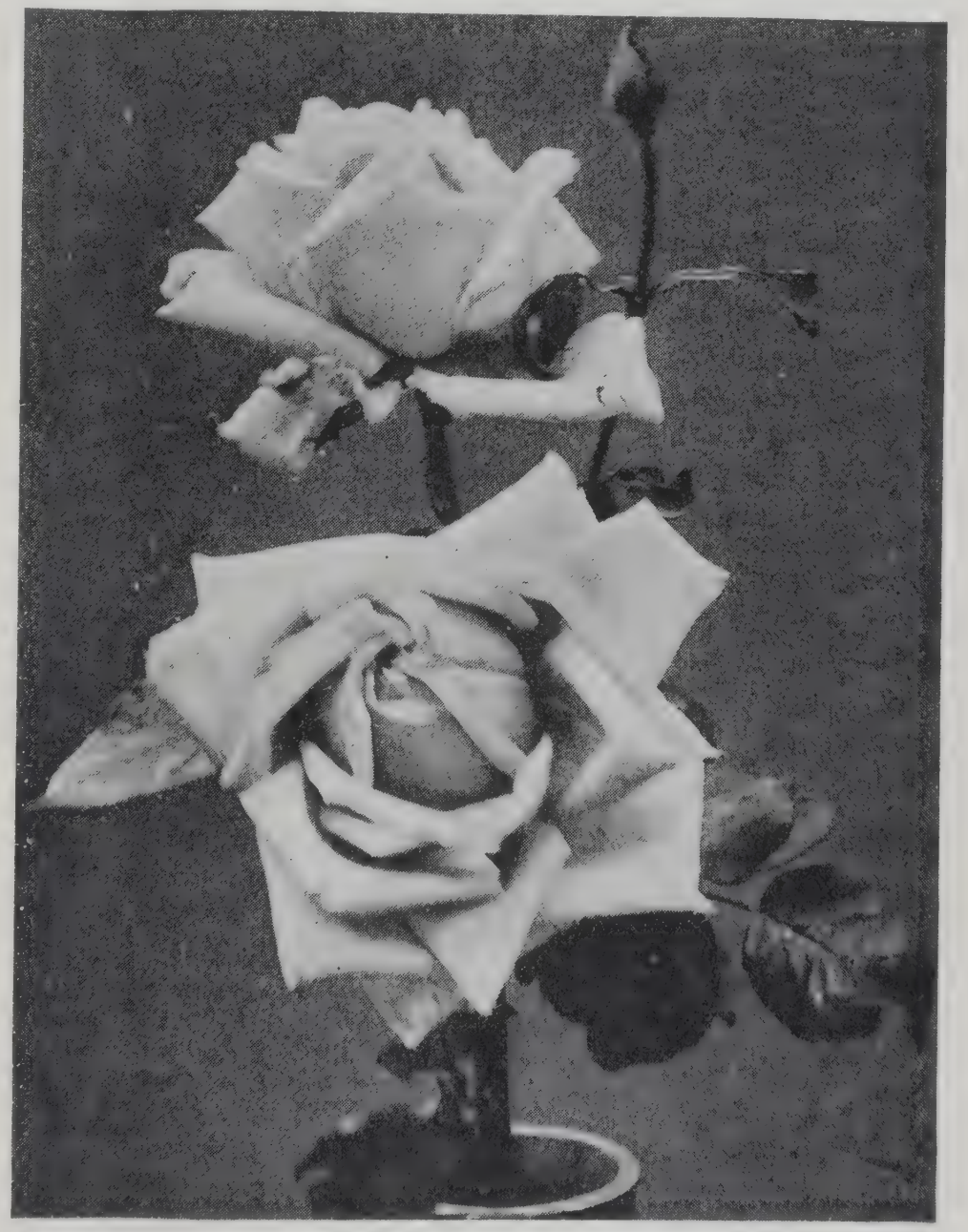
Ceanothus in cultivation, C. veitchianus, is probably a hybrid. I saw no species equalling it in brilliancy of colour, except C. rigidus, a low bush with strangely gnarled and twisted branches, abundant on the higher slopes of Mount Tamalpais. The species are difficult to discriminate, and I must refer the reader to an admirable article on Ceanothus by A. Rehder in the "Cyclopædia of American Horticulture" (Macmillan, 4 vols.). Cercis occidentalis was in full blossom all along the valley of the Merced. One hardly expects to find Mimulus as a shrub, but M. viscidus, with showy buff-coloured flowers, is a shrub, and unmistakably a Monkey Flower, though it has been rechristened as Diplacus glutinosus. It is common in moist glens, and is very free flowering. On the same sandy flat, with the Romneya mentioned in my previous article, I saw in full bloom the beautiful Fremontia (introduced into England by Messrs. Veitch). Its brilliant golden calyx fulfils the duty of a corolla. I had it in my garden on a south wall for several years, and it reached a height of more than 20 feet, till an English winter killed it. A good Styrax was in flower on the slopes above Santa Barbara, the genus of which I recognised from its likeness to a still more beautiful Styrax seen two years ago in a valley in Crete, and not, I think, obtainable from our nurserymen. Garrya elliptica was common on the same slopes, along with another species, G. Fremontii. Much might be added as to the beauty of Arbutus Menziesii and the Californian Laurel (Umbellularia californica), but I have only space for one more flowering tree, and that the fairest of all, the Pacific Dogwood (Cornus Nuttalli). I saw it first in the Yosemite Valley and then abundantly in Oregon. It is hard to do justice on paper to this lovely tree. Its beauty consists not only in the size and form of each individual bloom, composed of five or six creamy white petal-like bracts, but also in the manner in which the starry flowers are disposed at the point of each twig and the graceful, free-branching habit of the whole tree. I always saw it close to water, if not actually standing in it. The bracts are at first yellow, and gradually change to creamy white. The flowers precede the leaves. I have not seen it in cultivation in England, though it appears in Messrs. Veitch's catalogue. At the time that I travelled it made the journey through Oregon a perpetual delight.

In conclusion, I should like to acknowledge my obligation to Professor Jepson's "Flora of Western Middle California" (publisher, Cunningham, San Francisco), though, unfortunately, I did not become acquainted with it till I had almost completed my stay. The same eminent botanist has also published two works on "The Trees of California," one a popular and concise, the other a much larger, illustrated work. At first I only had "The Wild Flowers of California," by M. Parsons (publisher, Cunningham), which gives a small but very judicious selection. There is as yet no separate and complete flora of California as a whole, though Professor Jepson has one in preparation.

High Hall, Wimborne. E. R. BERNARD.

SWEET PEA NOTES.

AN APOLOGY.—In my notes published in THE GARDEN dated June 24, under the paragraph heading "Disbudding," I alluded to the picking off of stems carrying four and five blossoms with a view to ensuring superb quality for the July exhibitions. One of my readers immediately picked up the point and desired the Editor to explain how he himself could secure fours and fives in such abundance as to be able freely to dispose of them, and the Editor calmly suggested that I might have been pulling the long bow. And so I was. The correspondent was not, however, fully satisfied, and regretted that I should take such liberties in a paper like THE GARDEN. Quite right, it was a liberty; but I laboured under the impression that few of my readers would accept the statement as fact. My idea was that they would read it as impressing the importance of keeping the flowers down in favour of later blooms for the shows. I ask the pardon of the particular correspondent who failed to add the required grain of salt to a tall yarn, and truthfully assure him that when I get fives I do not throw them away, but pass them along in button-hole bouquet form to my chief, who adorns himself with them for town and tells his friends that his man only retains sixes and sevens for the shows; but they rarely believe him.



THE NEW HYBRID TEA ROSE NERISSA. (*Much reduced. See page* 370.)

THE GREAT SHOW.—That the "National" was a great show cannot be doubted for an instant. Not only were there flowers in immense numbers, but the quality, especially in regard to colour, perhaps, was superb; in fact, I am of the opinion that the latter feature has never been excelled at any exhibition of the National Sweet Pea Society. Full details of the classes have already been given in these pages, and I do not intend to utilise my space in repetitions; but I should like to give a special word of thanks to Mr. Cowdy for his Irish exhibits. They were models of excellent culture, and were probably as fine Sweet Peas as had ever been shown at any time or in any place, and certainly they were vastly superior to the great majority. Let us hope that Mr. Cowdy will come again, and that there will then be an Englishman who will make him haul down his colours.

If there was one weak feature of the whole display, it was the table decoration section, which, a while ago, was remarkably good. Why this deterioration? Have our artistic members lost their cunning? Have not Sweet Peas still their natural grace and value for such purposes? Or can it be that the managers of the exhibition begrudge the space occupied by the tables, and therefore do their best to discourage them? I am inclined to take the last-named view, and to deplore it. Sweet Peas grown for exhibition and beautifully shown in vases are splendid; but Sweet Peas artistically arranged on a dinner-table are infinitely more attractive, and it will be deplorable if the feature which made the show in the days gone by is to be allowed to fall to an insignificant position, or is to be dropped altogether.

The attendance on the first day was moderately good, but not so large as one might have expected to see and one would have seen had there not been so many things on in London during the present season. There have been functions in heaps, and all have demanded money from participators in them, with the result that there were few coins left among some of us for such a humble affair as the annual exhibition of the National Sweet Pea Society.

THE TRIALS AT SUTTON GREEN.—I was most agreeably surprised at the excellence of the trials. I had been told that the soil was terribly light, and that in such a dry season it was impossible for the plants to grow and flower satisfactorily. When, therefore, as 1 per cent. of the visiting party, I saw plants ranging from 4 feet to 6 feet in height carrying thousands of fine flowers, I was at once astonished and delighted. The culture is rather that of the field than of the garden, and the results could scarcely be beaten in any circumstances where similar conditions prevailed. I should like

to add my tribute to the admirable manner in which Mr. Harry Foster had carried out his important task. But the time has come when the society must have two sets of trials, one always at Sutton Green, if such be within the bounds of possibility, and the other in strong soil in the Northern Midlands or the North. The comparative results on one soil are excellent as far as they go, but they would immeasurably increase in value if they could be repeated under entirely different conditions of soil and climate. I should like to know whether the committee of the National Sweet Pea Society has taken any steps to this desirable end? A. B. ESSEX.

ROSE GARDEN.

NEW ROSE NERISSA.

AS described in our last week's issue, this new Rose belongs to the Hybrid Tea class. It is a fragrant variety, and the colour is cream flushed with rose pink on the reflexing portion of the petals. The combination of colours gives this Rose a distinct and somewhat unusual appearance. The new variety was shown by Messrs. William Paul and Sons, Waltham Cross, at a recent meeting of the Royal Horticultural Society, when it received an award of merit from the floral committee.

THE PREPARATION OF GROUND FOR ROSES.

WHERE possible, it is advisable to select a piece of ground for Roses alone, which should be open and not too closely shut in by trees. At the same time, the shelter from distant trees or high hedges is useful during boisterous weather, more especially when accompanied by keen, frost-laden winds. Although Roses can be grown in almost any soil, a great deal of the success undoubtedly depends upon the manner of preparation, and no rule suitable for all soils can be given. A deep yellow loam of a greasy nature is perhaps the best of all, as it not only retains moisture without the excessive wet of clayey soils, but the food given to the Roses is not so quickly lost in drainage. Should the soil be of a light or stony nature, some stiff loam should be added as well as manure. One very general rule is that the soil cannot well be cultivated too deeply. Although in the case of average soils trenching proper, *i.e.*, throwing the bottom spit of soil to the top, is useful, it is more often advisable to bastard-trench, which is done by digging over the bottom spit only, in the meantime well incorporating some manure, and then throwing the top spit of the next trench on to the prepared bottom. The process itself is simple; but, personally, I do not care to bring really bad soil too near the surface, as it is not so easy to work later when surface cultivation is the object. By all means improve the bottom by placing something there that the roots can make use of, for nothing is more detrimental to successful Rose culture than for the roots to penetrate into poor soil of a gravelly or marly nature; therefore, take the present opportunity to improve the bottom trench. Should the soil be very stiff, add wood-ashes, soot or broken chalk, but do not overdo the latter. These stiff soils are all the better if turned up as roughly as possible to afford more exposure to the air, and if one can commence early enough to allow of their being turned over a second, or even a third, time, so much the better. In any case, let the ground have a little time to settle before planting.

We must not forget that to plant a Rose into too rich a soil is unwise, it being much better to thoroughly prepare the bottom and gradually feed by judicious mulchings as the plants grow and can take it. In planting single Roses, such as specimen standards and those upon walls, the removal of the bulk of the soil, as is often practised, is not so essential as to thoroughly turn the lot over and incorporate manure as already hinted. To take away the greater portion of the soil and add powerful manures does not conduce to free rooting, the roots being checked at the very start. Here, again, we must study the soil; but I may say strong growers need a richer bottom, because they will naturally go deeper on account of the greater support they have to supply. It is not advisable to use artificial manures when preparing ground or at planting-time, except it be half or quarter inch bones. Some of this at the bottom gives good after-effects, and the food does not wash away so quickly as the more soluble manures. By far the best manures are well-rotted stable manure and farmyard or pig manure; but, as noted, it is better to use these more freely as the plants commence growth. The main point in preparing the ground is to thoroughly move it and make the bottom sound, for this we cannot well touch again, whereas the roots can be fed from the surface at any time. A. P.



A WELL-GROWN PLANT OF THE BLUE-FLOWERED DENDROBIUM VICTORIÆ REGINÆ.

GREENHOUSE.

THE BLUE-FLOWERED DENDROBIUM.

(D. VICTORIÆ REGINÆ.)

THIS very remarkable Dendrobium is a native of the Philippines. So far, however, it has not proved to be an easy species to cultivate, and the plant illustrated on this page is said to be the best specimen in cultivation. This particular plant, grown and exhibited by Mr. W. H. White, Orchid-grower to Sir Trevor Lawrence, Bart., K.C.V.O., received the dual award of a first-class certificate and a cultural commendation from the Royal Horticultural Society on July 18. Instead of receiving the warm cultural treatment that is usually given to Dendrobiums, this plant had been grown in an Odontoglossum house, and its healthy appearance clearly shows that it responds to a cool temperature.

EARLY BULBS FOR THE DWELLING-HOUSE.

THE season has now arrived when cultivators must make preparations for growing bulbs. Probably more bulbous plants are grown in dwelling-houses than fibrous-rooted ones, but this may be accounted for owing to the former being more suitable for the purpose during the winter and early spring months. Nearly all details of work in connection with the cultivation of the bulbs can be carried out within the house itself and the back-yard, so that bulbs are very accommodating plants for town and suburban dwellers to grow. Those who possess large bay windows through which the light can come from three different points may grow bulbs on a fairly large scale; but those who have smaller

windows must not overcrowd them. Bulbs grown in ordinary compost are started into growth outside under sand, soil or ashes, and then placed in the dwelling-rooms or windows in batches to suit the wishes of the cultivator. Bulbs grown in glasses are started in water in a darkened cupboard in the house or an outbuilding, and then gradually inured to the full light in the window or on a table in the room. Bulbs grown in moss fibre in vessels without drainage holes in them may be treated in the dwelling-house from the planting to the flowering stage.

Suitable bulbs for growing in a room are Roman and named Hyacinths, Polyanthus Narcissus, such varieties as Paper-White, grand Soleil d'Or, and Elvira; and of Narcissi, Emperor, Empress, Victoria, maxima, Mrs. Langtry, Sir Watkin, Mme. Plemp, Mme. de Graaff and Barri conspicuus; Freesias, Lily of the Valley and Tulips. Snowdrops, Crocuses and Scillas may also be grown in pots of small size or near the edges in tubs or boxes.

When growing bulbs in pots and pans, ashes are usually employed for covering the receptacles containing the bulbs. This is quite the right thing to do if the ashes have been previously washed by rains and exposed to the weather for at least four months. Then they will be cleansed of sulphur fumes, which, in fresh ashes, are sufficiently strong to cripple, and in some instances kill, the growth of the bulbs. Clean sand is also excellent with which to cover the bulbs. The compost must be a light one, mellow loam and leaf-soil in equal proportions, with a free admixture of coarse sand. Use clean pots and pans, also potsherds neatly placed for drainage. Press down the bulbs in the soil, leaving the crowns of Roman and other Hyacinths and Tulips just above the soil; but bury the other bulbs according to their various sizes. Narcissus bulbs need not be buried if many are required in a pot; but when covered with 1 inch of soil the resultant growth and flowers are stronger. Water the bulbs at once to settle them in the soil, cover the pots with empty inverted ones, and then the whole with ashes or sand. When brought from the plunging material after 1 inch of new growth has been made, gradually expose to full light and air. When growing Hyacinths in glasses, the very best bulbs must be selected, and the largest are not always the best. Large bulbs, if well matured and of good form, are ideal ones to place in glasses; otherwise those of medium size, but solid and well shaped, should be chosen. The glasses must be filled with water, so that the bottom of the bulb will just touch the surface of the water; but no other part of the bulb should be immersed. A few lumps of charcoal and a tablespoonful of washed silver sand may be placed in the glass to help to ensure the purity of the water. When the bulbs are fixed in position, place the glasses in a dry cupboard and add water from time to time as it is required, so as to maintain the bulk at the level stated. Roots will soon grow straight down into the water, and when the leaves and flower-spikes have made progress to the extent of about 3 inches, very gradually expose the plants to the light. On tables and in windows the full beauty of the glorious flower-spikes may be enjoyed if ordinary attention is given to their simple requirements.

The flowers of bulbs grown in moss fibre are not only beautiful, but the whole process of growing them is a very interesting one. Having procured the most suitable vessels, the moss fibre must be well loosened, that is, all the particles must be separated and then gradually made quite moist. After the damping the fibre expands somewhat. An inexperienced cultivator should purchase the material already mixed; but anyone who has had some experience may do the mixing of the fibre and ground shell himself. The bulbs must be placed in the moss fibre and covered as follows: Hyacinths, nearly 2 inches deep; Narcissi, 2 inches; Freesias and similar small bulbs, about 1 inch deep. It is wrong to press down the fibre firmly around the bulbs; allow it to settle naturally. After potting, place the vases in a light room, not in a darkened cupboard as in the case of bulbs in glasses. Maintain the fibre in a regular state of moisture, but without saturating it too much. Fitful watering would prove harmful; it would be fatal to the growth of the bulbs if the moss fibre and ground shell were allowed to get very dry. The labour necessary in keeping the material in a nice moist condition is really very light. AVON.

RHODODENDRON COUNTESS OF HADDINGTON.

THIS is a most beautiful variety, the flowers being large, borne in grand trusses and very fragrant. Throughout the summer-time the plants may be grown in the open air, but they must be watered as carefully as Indian Azaleas; it would be very injurious to the plant if the ball of soil was allowed to get dry. Plants that require repotting must be dealt with directly the flowers have faded, and it will be advisable to keep them under glass until the new shoots have made good progress and roots have freely entered the new soil. The compost should consist of fibrous loam, peat and leaf-soil in equal proportions. Sufficient coarse silver sand must be added to secure porosity. Pot firmly. The plants have not a nice compact habit naturally, but much can be done by judicious training to ensure a fairly good shape. A minimum winter temperature of 40° must be the rule; the maximum need not exceed 55°. This Rhododendron is valuable where fragrant flowering plants are appreciated in spring, B.

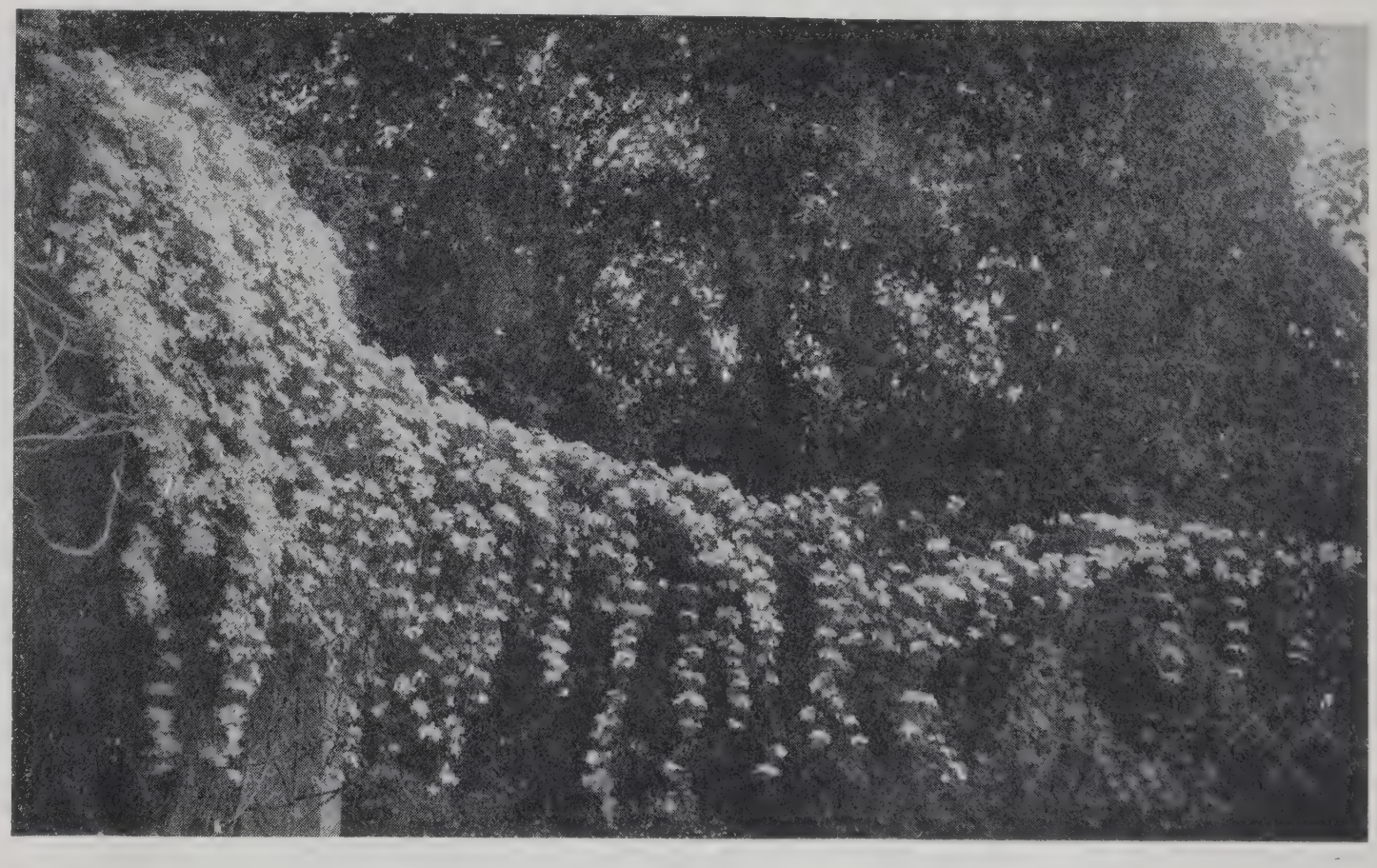
COLOURED PLATE.

PLATE 1431.

CALCEOLARIA KELWAY'S PERFECT MODEL.

THIS is a valuable strain of herbaceous Calceolarias that has taken at least half a century, if not longer, to bring to its present stage of perfection. It has been raised at Langport. It is certainly distinct from any existing strain, and merits a high place among those beautiful plants known as herbaceous Calceolarias. If we turn to Kelway's Manual of Horticulture we find this strain referred to as "a great speciality and without exception the finest in the trade. It is of splendid habit, neither too tall nor too dwarf, carrying large heads of very large flowers, which are well rounded and filled out, and of the richest as well as the most delicate colours. From this strain the flowers may be had in great variety of shades and mostly self, spotted, blotched and striped. The Calceolaria is chiefly valuable for the decoration of the house and conservatory.

"*Cultivation.*—Seed may be sown from May to August. This should be sown very thinly on the surface of light, sandy soil, with the addition of a little leaf-mould and peat. Saturate the soil before sowing. Place glass over the pots or pans, which must be well crocked to ensure good drainage, and place in gentle heat. Never allow the seedlings to become too dry, and shift on gradually from thumb-pots to larger ones. Keep the young plants well shaded from the direct rays of the sun. The plants should be grown on in frames or greenhouse through the winter, not requiring much heat, but air whenever practicable."



CLEMATIS MONTANA IN A SOUTH DEVON GARDEN. (*See page* 372.)

TREES AND SHRUBS.

THE MOUNTAIN CLEMATIS.

(C. MONTANA.)

BEAUTIFUL garden effects are created by the more vigorous members of the Clematis family when permitted to ramble freely over balcony, rustic trellis, pergola or tree. Stiffly-trained and hard-pruned specimens give scarcely a hint of the natural beauty they are capable of expressing if allowed to grow in unrestrained freedom. The subject of the illustration on page 371, Clematis montana, is one of the most decorative of its family and, when once well established, grows with surprising vigour and rapidly covers a large extent of surface. It comes into flower towards the end of May, and few more charming spring pictures can be imagined than an old evergreen, with its branches garlanded by the ivory white flower-wreaths of the Mountain Clematis whose shoots have sought the topmost spray and hang in a white veil from its dark-foliaged boughs. When utilised to drape a balcony or verandah, a certain amount of pruning is sometimes necessary. This should be carried out immediately the flowering period is past, so that the summer's growth may produce new flowering wood. These new growths should be restricted and trained as little as possible, in order that the plant may present a natural rather than an artificial contour when in blossom. It must not be hard pruned or cut to the ground annually, as is the custom with Clematis Jackmanii. It should be left unpruned, save to cut out weak or exhausted wood, seeing that it flowers on the old wood, such as the young growths of the preceding year, which should be laid in for flowering during the winter. C. montana, in good soil, will sometimes grow as much as 20 feet in a season, so that there is little difficulty in securing good flowering wood, and the result will be superb. Any good loamy soil will suit this Clematis, but the position should be well prepared by making a hole at least 3 feet across and of the same depth and filling this with good soil mixed with plenty of old manure. When once fairly established it is wonderful how it will hold its own, even under, seemingly, the most disadvantageous circumstances; but to do so its roots must have undisputed possession of the soil when commencing their growth in new quarters. In the springtide of the year many a delightful picture is afforded by hardy flowering climbers such as this Clematis. Crude walls and ill-designed structures devoid of interest assume an aspect of beauty when swathed in trailing growth and floral tracery. Strong-growing climbers such as C. montana soon attain large proportions and clothe a wide expanse of wall in a comparatively short space of time. It is when allowed unrestricted freedom of growth that the most picturesque effect is obtained, and a Clematis garlanding the sombre foliage of an old Yew with trails of starry blossoms is infinitely more charming than the same plant when subjected to formal training. Balconies and verandahs can be rendered objects of loveliness by the help of C. montana. Standard specimens are rarely seen, but they add greatly to the charm of that portion of the garden in which they have a place. The best plan is to use for each plant one of the tall iron supports with umbrella head, such as are manufactured for the training of rambling Roses as single specimens. With such aid the formation of fine examples will be a comparatively easy matter, and they may be maintained in the best possible condition for a long period.

WYNDHAM FITZHERBERT.

PLAGIANTHUS LYALLII.

TRAVELLERS tell us that this is one of the most beautiful trees of the New Zealand flora. It is quite hardy in the London district; but in the colder parts of the country it should be planted against a wall. It flowers in July, a season when good flowering trees and shrubs are none too plentiful. In New Zealand it is said to form a small tree 20 feet to 30 feet in height; but in this country the specimens would be more fittingly described as shrubs 6 feet to 8 feet or more in height; while planted against a wall, specimens 12 feet in height are by no means rare. The flowers are white, about 1 inch across, and drooping,



A SPRAY OF THE RARE HARDY SHRUB PLAGIANTHUS LYALLII.

borne several together in the axils of the leaves. Outside in this country it is deciduous, but when grown in a cool greenhouse sub-deciduous would better describe its behaviour. Given a light, loamy soil and a fairly warm position, no doubt need be entertained about the plant succeeding. Cuttings are rather difficult to root, but layering forms a ready means of propagation. Plagianthus Lyallii is a malvaceous shrub allied to the Hibiscuses. The year 1871 is given as the date of its introduction from New Zealand, where it is popularly known as the Lace Bark. This interesting plant received an award of merit at a recent meeting of the Royal Horticultural Society.

A. O.

THE TOWN GARDEN.

DAHLIAS.—In the cultivation of these showy and popular plants the amateur not infrequently errs by a neglect of the "stitch in time" principle; in other words, he allows his plants to become a thicket of growth before any attempt is made at thinning. Then follows the inevitable, and what should have been thinning resolves itself into unnecessary mutilation and very decided loss. The error is more frequent, perhaps, in those instances where the amateur plants out the old stools of his Dahlias intact. In such instances it is present from the start, while the neglect to thin only emphasises the difficulty.

WHAT TO DO in the circumstances is a question of the moment; and while it is not possible entirely to eradicate early-made errors, they may be modified by a little thought and intelligence. Hence let the thinning be done gradually, and in place of cutting away a dozen shoots from a plant at once, and so inflict shock and injury unnecessarily, remove the weakest to-day and continue the work a day or two later. If in conjunction with the above the strongest shoots are selected and tied out to separate stakes, they will be receiving benefit at once, and both will work together for a good and common cause. Varieties of the Cactus, show and fancy classes require early and severe thinning if exhibition blooms are the aim, while Pompons and the decorative section of the Cactus give serviceable and often more characteristic flowers when a greater number of shoots are encouraged. In the

GENERAL TREATMENT of the Dahlia the fact must never be lost sight of that the plant delights in abundant supplies of moisture at the root, and neglect of this important cultural detail is often enough responsible for the early deformed flowers which are seen. Nor should these supplies be given with a niggardly hand; rather should they be of a copious or generous nature, the outcome, as it were, of an intelligent appreciation of the requirement of the plant and its capabilities of taking up and assimilating such supplies.

TRAPPING THE PEST.—One of the greatest of Dahlia pests is the earwig, and one most annoying to the cultivator. The usual way is to trap them by means of an inverted pot and hay or moss placed on the stake, though it not infrequently happens that the pest first has its supper and retires to its prepared bedchamber later. Why not, therefore, endeavour to waylay it in advance, which may be done, in part at least, by placing some of the pots near the base of the plant. Frequently—indeed, almost invariably—some few of the pest may be found in the drier portions of the manure mulch around the plant, and a trap or two near the stem in conjunction with a distorted flower-bud or two, or even a half-expanded flower, will not be set in vain.

FERNS FOR ROOMS.—While flowering plants are usually the most enjoyed within the limits of the dwelling, there are times and seasons—and those of long-continued summer heat in particular—when the cool, refreshing appearance of Ferns has a charm of its own. That charm has been unmistakably experienced during the recent weeks, when some well-grown examples of Nephrolepis have played their part so well. This is due as much to the superabundance of the growth of these plants as to their own delicate grace and beauty, while their restful coolness in the circumstances is something which all may partake of and enjoy.

S. N. N.

GARDENING FOR BEGINNERS.

REMOVING SUCKERS FROM ROSES.

THE question of removing suckers from Roses may appear to be a very simple matter, but there are many who, through want of experience, know little or nothing about this apparently trifling detail of culture. Before anyone can appreciate what to do in this matter it is well for them to understand that the whole question is one of stocks. Probably 90 per cent. of the Roses grown to-day are worked on one stock or another. Only a very small proportion of the Roses grown to-day are on their own roots.

The process of raising Roses on their own roots is a comparatively slow one, as it would take at least four years to make a good plant; and, again, a goodly number of the better sorts do not possess the inherent strength when grown in this manner. The writer has a distinct preference for Roses on their own roots, and does not mind waiting longer for these plants to mature, as, by so doing, the matter of removing suckers never arises. However, we are face to face with the fact that many Roses in our gardens to-day have developed these undesirable suckers, which must be got rid of if our plants are to continue in good health and condition. In THE GARDEN of July 8 last the removing of sucker growths from fruit trees was dealt with in detail, and I would refer readers to the notes in question for information how to proceed with sucker growths on Roses. That the beginner may distinguish the stock from the garden Rose in Fig. 1, a shoot severed from a Briar and another shoot from that of a garden Rose are shown. The latter is figured on the left of the picture, and the Briar on the right of the same picture. A careful comparison should be made of these two growths. Stock of the Manetti is not unlike that of the Briar; it has tender, pale green foliage and seven leaflets, as a rule. Young sucker growths are of a reddish brown colour, and have thorns of a similar colour. These thorns, or prickles, are composed of large and small ones, the large ones being disposed about an inch apart and the smaller ones in between. The De la Grifferaie stock also favours the Rose in appearance, and has five leaflets like the garden Rose. To distinguish the suckers, however, the beginner will observe their downy appearance; the young growth is quite mealy-looking and purplish green in colour; the thorns or spines are large and strong, and the bark is red. Fig. 2 serves to illustrate the character of a sucker growth that has evolved on a plant of the well-known Polyantha Rose Perle d'Or. The extraordinary vigour of these suckers often seriously affects the growth of the plants, unless they are removed promptly. It is useless to cut off the suckers just level with the ground; they must be detached quite close to the roots whence they spring.

D. B. CRANE.



1.—ON THE LEFT IS THE SHOOT OF A CULTIVATED ROSE, ON THE RIGHT A SHOOT OF THE BRIAR.



2.—ROSE BUSH WITH A STRONG SUCKER.

ZONAL PELARGONIUMS FOR WINTER FLOWERING.

AMATEURS, generally, take a great deal of pride in growing these plants for the embellishment of the greenhouse or conservatory during the autumn and winter months. If it were not for these plants, I am quite sure that many structures of the kind referred to would be almost bare of blossom throughout the dull season of the year. The majority of the plants now being grown for this purpose will have filled the flowering pots with roots. They will thus be in the right condition for feeding. The great value of clear soot-water for Zonal Pelargoniums cannot be made too widely known. I rarely use any other kind of stimulant for my own winter-flowering plants, and the latter invariably attain to a good size, bear healthy leaves on mature stems, and flower profusely. The plants must have plenty of fresh air during the summer and early autumn months, and full exposure to sunshine. If the drainage of the soil is perfect and the watering done in a judicious manner, there will not be many yellow leaves on the plants at any stage of their growth. Flower-buds will grow strongly also, but they must be pinched off regularly until within five weeks of the time that the plants are required to be in full flower. The soot-water should be made as follows: Place one peck of soot (fresh soot) in a small coarse bag, or one of the new infusers, and immerse either in a vessel containing twenty gallons of water. Violently move the bag to and fro several times each day for three days; then use the clear liquid at the rate of one pint to a gallon of water, and apply it to the plants at every alternate watering.

Place the plants in the greenhouse early in September in the Northern Counties, and towards the end of that month in the Southern Counties. During the few weeks following the housing of the plants, a lot of air must be admitted and every care taken to avoid a too moist atmosphere inside the structure. Less water will be needed by the plants, and that necessary, and also the feeding, must be given in the early part of the day. It may not be known to some readers of THE GARDEN that the variety Paul Crampel is an excellent one for winter flowering, thus proving itself to be an all-the year-round variety.

B.

THE PARENTAGE OF ROSES.

(*Continued from page* 362.)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Radiance	H.T.	Cook	1909	Seedling Cardinal
Rainbow	Tea	Sievers	1891	Sport Papa Gontier
Raoul Chauvry	Tea	Chauvry	1896	Seedling Mme. Lambard
Rayon d'Or	Pernet	P. Ducher	1910	Mme. Melanie Soupert × Soleil d'Or
Rebecca	H.P.	Trouillard	1857	Seedling Geant des Batailles
Recuerdo de A. Peluffo	Tea	Soupert	1910	Melanie Soupert × Mme. Constant Soupert
Red Pet	Ch.	Parker	1888	Sport White Pet
,, Rover	H.P.	W. Paul	1864	Seedling Beauty of Waltham
Regierungsrath Stockert	H.P.	Soupert	1888	Dupuy Jamain × Mme. de Sevigne
Regina Badet	H.Rug.	Gravereaux	1908	General Jacqueminot × Empereur du Maroc × R. rugosa
Reichsgraf E. von Hesselstadt	Tea	Lambert	1898	Princesse Alice de Monaco × Duchesse M. Salviatti
Reine Blanche	H.P.	Damaizin	1868	Seedling La Reine
,, de Denmark	H.P.	Granger	1857	Seedling La Reine
,, des Violettes	H.P.	M. Mollet	1860	Seedling Pius X.
,, Marguerite d'Italie	H.T.	Soupert	1904	Baron N. de Rothschild × Princesse de Bassaraba
,, Maria Pia	D.T.	Schwartz	1880	Seedling Gloire de Dijon
,, Marie Henriette	D.T.	Levet	1878	Mme. Berard or Gloire de Dijon × General Jacqueminot
,, Nathalie de Serbie	Tea	Soupert	1883	Mme. Lambard × Sulfureux
,, Olga de Wurtemburg	H.T.	Nabonnand	1881	Gloire de Dijon race
René André	H.W.	Barbier	1900	R. wichuraiana × L'Ideal
,, Collette	H.T	Gamon	1909	Anna Chartron × Kaiserin Augusta Victoria
,, Gravereaux	H.Rug.	Gravereaux	1902	Seedling Conrad F. Meyer × Safrano
,, Oberthur	H.T.	Vigneron	1907	Seedling Caroline Testout
Renée Denis	H.P.	Ch. and Pajol.	1907	Margaret Dickson × Paul Neyron
,, Wilmart Urban	H.T.	P. Ducher	1907	Seedling × second seedling
Resi Bindseil	P.P.	Lambert	1908	Oscar Cordel × Kleiner Alfred
Rêve d'Or	N.	Ducher	1869	Seedling Mme. Schultz
Rev. Alan Cheales	H.P.	G. Paul	1896	Seedling John Hopper
,, J. C. Cole	N.	*Australia*	1909	Chromatella × Maréchal Niel
Reynolds Hole	H.P.	G. Paul	1872	Duke of Edinburgh race
Rhea Reid	H.T.	Hill	1908	American Beauty × a red seedling
Ricardo di Geo Chavez	H.T.	Bonfiglioli	1910	Kaiserin Augusta Victoria × La France de '89
,, ,, Giosne Carducci	H.T.	Bonfiglioli	1909	Anna Olivier × La France de '89
Richard Wagner	H.T.	Turke	1892	Belle Lyonnaise × Lady M. Fitzwilliam
Richmond	H.T.	Hill	1905	Lady Battersea × Liberty or General Jacqueminot
Riego	H.C.	—	—	A China × R. rubiginosa variety
Robert Craig	H.W.	Hoopes	1904	R. wichuraiana × Beauté Inconstante
,, Duncan	H.P.	A. Dickson	1897	Charles Lefebvre race
,, Scott	H.T.	Scott	1901	Merveille de Lyon × Mrs. W. J. Grant
Roger Lamberlin	H.P.	V. Schwartz	1890	General Jacqueminot race
Rosa alba	H.Sps.	Linnæus	1597	R. gallica × R. canina
,, anemonæflora	H.Sps.	Fortune	1847	R. banksiana × R. multiflora
,, berberifolia Hardii	H.Sps.	Hardy	1836	R. involucrata × R. berberifolia
,, bourboniana	H.Sps.	Red.	1819	R. semperflorens × R. gallica
,, Boursaultii	H.Sps.	—	—	R. alpina × R. indica
,, centifolia muscosa	Sps.	*Holland*	1596	Sport R. centifolia
,, damascena	H.Sps.	Miller	1573	R. gallica × R. canina
,, ,, Belgica	H.Sps.	Celsius	—	R. damascena × R. centifolia
,, ferox nitens	H.Sps.	Lindley	1822	R. ferox × R. canina
,, fortuneana	H.Sps	Lindley	1845	R. banksiana × R. lævigata
,, freundiana	H.M.	Graebener	1908	R. moschata × R. gallica
,, gallica	H.Sps.	Linnæus	1596	R. centifolia × R. damascena
,, Hardyii	H.Sps.	Celsius	1836	*See* R. berberifolia Hardii
,, Harrisonii	H.Sps.	Harrison	—	R. lutea × R. pimpinellifolia
,, hibernica	H.Sps.	Smith	Native	R. pimpinellifolia × R. canina
,, lutetiana	H.Sps.	Lemann	—	R. canina × R. gallica variety
,, Lyellii	H.Sps.	Lindley	—	R. involucrata × R. moschata
,, macrantha	H.Sps.	Desportes	—	R. gallica × R. arvensis or R. canina
,, moschata grandiflora	H.Sps.	Zoebel	—	R. moschata × R. multiflora
,, multiflora thunbergiana	H.Sps.	—	—	R. multiflora × R. lævigata
,, myriacantha	H.Sps.	Lambert	1910	R. multiflora × a Moss
,, noisetteana	H.Sps.	Champeney	1910	R. moschata alba × R. semperflorens
,, rugosa repens alba	H.Rug.	G. Paul	1903	R. rugosa × R. wichuraiana
,, ,, tenuifolia	H.Rug.	Benard	1904	R. rugosa alba × R. pimpinellifolia
,, ,, Yvara	H.Rug.	Siebold	—	R. rugosa × R. multiflora
,, scarnkeana	H.Sps.	Graebener	—	R. californica × R. nitida
,, spaethiana	H.Sps.	Graebener	—	R. carolina × R. rugosa
,, Verschuren	H.T.	Verschuren	1905	Seedling Souv. de la Reine d'Angleterre
,, watsoniana	H.Sps.	Crépin	1887	Seedling R. anemonæflora
,, wichuraiana alba rubrifolia	H.W.	Conard	1901	R. wichuraiana × Coquette de Lyon
,, ,, rubra	H.W.	Barbier	1900	R. wichuraiana × Crimson Rambler
Rosabelle	N.	Bruant	1899	Fortune's Yellow × Mme. de Tartas
Rosalind	P.P.	G. Paul	1907	H.M. × Anne Marie de Montravel
,, Orr English	H.T.	Hill	1905	Mme. Abel Chatenay × Papa Gontier
Rose Anemone	H.Sps.	J. C. Schmidt	1896	R. lævigata × General Jacqueminot
,, à Parfum de l'Hay	H.Rug.	Gravereaux	1901	R. damascena × General Jacqueminot × Germanica
,, d'Herbeys	Tea	A. Schwartz	1902	Mme. Hoste × Souv. de J. B. Guillot
,, de Meux	Pom.	Robert	1857	*See* de Meux
,, des Peintres	Prov.	—	—	Sport Common Provence
,, Gubert	Tea	Nabonnand	1906	Jean Pernet × Mme. Bonnet Aymard
,, Rosemarin	Tea	Nabonnand	1888	Papillon × Chromatella
Roseraie de l'Hay	H.Rug.	Cochet C.	1901	Seedling R. rugosa rubra
Rosieriste P. Boutigny	H.T.	Boutigny	1904	Reine Marie Henriette × Victor Hugo
Rosslyn	H.P.	A. Dickson	1900	Sport Suzanne M. Rodocanachi
Rosy Morn	H.P.	W. Paul	1878	Seedling Victor Verdier
Rouge Angevine	H.P.	Guinoisseau	1907	Seedling × second seedling
Royal Cluster	M.S.	Conard	1899	Hermosa × The Dawson
Ruby Queen	H.W.	Conard	1899	R. wichuraiana × Champion of the World
Rudolph Einhardt	H.P.	Welter	1898	Eugène Fürst × Duke of Teck
Ruga	Ayr.	Clare	—	R. indica × R. arvensis capreolata
Ruhm der Gartenweldt	H.T.	Jacobs	1904	Mme. Ferdinand Jamin × Francis Dubreuil
Schneeball	H.W.	Weigand	1906	Chance seedling R. wichuraiana
Schneekopf	P.P.	Lambert	1903	Mignonette × Souv. de Mme. Sablayrolles
Schneerose	H.P.	Jacobs	1901	Merveille de Lyon × Comtesse de Frigneuse
Schneewitchen	P.P.	Lambert	1901	Aglaia × Ma Paquerette × Souv. de Mme. Levet
Secretaire Gen. Delaire	H.P.	Corbœuf	1898	Baroness Rothschild × Alphonse Soupert

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page* 231 *of our issue for May* 13.)

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN AUGUST.

IT may be helpful to inexperienced cultivators if I here give a few hints on the treatment of some varieties while the berries are colouring and ripening.

Madresfield Court.—This is one of the best of Grapes grown, and will attain perfection in a cool house or in a greenhouse. Amateurs are afraid to attempt its culture in some instances, I know, because they fear loss through the cracking of the berries and the failure of the latter to colour well. I should not be acting straightforwardly to readers of THE GARDEN if I told them that they need not fear failure in regard to the splitting and bad colouring of the berries, because no one can be quite certain that everything will go quite well with this Grape, even when it is grown under the most favourable circumstances. I have succeeded in growing the variety to perfection, and have also failed to do it really well in some seasons. Overcropping certainly ends in lack of colour in the berries, a too dry or too moist border results in the splitting of the berries, and a too moist atmosphere has the same result. At the present time amateurs must pay attention to these details of culture, and see that there is plenty of warm air admitted to the house during the time the berries are colouring. I have even removed the squares of glass in the front lights on very hot days to let in more air, and the result has been that the sides of the bunches next to the openings have become blue-black first before the other and less-exposed sides.

Black Hamburgh.—The berries of this variety colour well under ordinary treatment if the Vines are not overcropped. Of course, a nice current of warm air passing through the house helps very much in putting on that deep black colour so desirable. A little more moisture may be maintained in the house where Black Hamburgh Grapes are grown alone.

Muscat of Alexandria.—This is rightly regarded as the prince of white Grapes. If amateurs can succeed in getting the berries to set well and can allow them a growing period of six months, there should be no difficulty in ripening them. A less amount of air must be admitted in their case during rather dull weather, but on hot days the ventilation should be ample, and where there are hot-water pipes they should be heated slightly during the night-time. If unduly chilled, the berries soon become spotted.

Alicante.—Almost similar treatment to that advised in the case of Black Hamburgh is suitable for Alicante Grapes. The berries usually colour well and keep well in a nice buoyant atmosphere; and although a fairly warm temperature is advisable on dull, cold days as well as at night, a very hot temperature with little ventilation would cause many berries to decay.

Gros Colmar.—Where heat can be applied at will, it should be used steadily throughout the time that the berries are colouring, although the pipes must not be kept very hot. If they are nicely warmed during unfavourable weather and the Grapes allowed a sufficiently long time to ripen, the colour of the berries will be satisfactory.

Gros Maroc.—Amateurs would do well to grow this variety where they have ample room, because the berries are large and colour well, and the flavour is not at all bad, as some persons say it is. I know fruiterers who prefer it to either Lady Downe's or Gros Colmar. The growth is luxuriant, and every Vine must have space to grow in, else the wood will not mature. The fruit ripens perfectly if the same

treatment be given as that meted out to Black Hamburgh.

Foster's Seedling.—This is a good variety when well grown, but it is a difficult matter to avoid getting the berries "rusted." If cold draughts be admitted one day and the temperature in the house the following day is close and hot, "rust" will soon appear on the berries. An even and rather warm temperature must be maintained.

Lady Downe's.—Good colour usually characterises this variety; the footstalks of the berries are rather short, and if overcrowded the berries will split and decay. To avoid this, several berries may be removed, even at this late stage of their growth, if necessary.

The Borders.—Although less moisture is now required in the atmosphere, the borders must not be allowed to get too dry. Water early in the morning on a fine day. B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Violets (*B. W.*).—There must be a reason for your continual failure to flower the fine Princess of Wales Violet, of which we have no information, and can only obtain probably by asking you a few questions. As you get plenty of leaves and no flowers, we naturally ask if you have relied too much on the spent Cucumber-bed material and leaf-soil, planting the Violets in too great a depth of this and all too loosely to produce good results? Have you clung tenaciously to old plants that are always prone to leaf-production instead of directing your attention to youthful examples? These are matters of great importance in the case, and the making up of the bed and the distance apart of the plants are as naught beside them. To successfully cultivate the Violet, fresh unflowered runners must be inserted each autumn in sandy soil in a frame, and when rooted and the winter is past plant them out in open and good ground in April. Arrange the plants at this time 1 foot apart. The summer cultivation resolves itself into keeping the plants free of weeds and the suppression of all runners, which, being interpreted, is the concentration of the whole of the vital force on the central crown.

Injury to Sweet Peas (*C. E. W. and Others*).—The roots of the Sweet Peas are attacked by the fungus Thielavia basicola. No certain cure for this attack is known, but we suggest watering the plants as soon as any sign of disease is seen with a solution of sulphate of potash and superphosphate, half an ounce of each to a gallon of water.

Delphinium grandiflorum (*J. H. W. T.*).—Yes; a true perennial provided your stock is also true. In certain localities and soils the plant refuses to grow; in others, where heavy soils obtain, both it and its double form succeed. Try again. Sow the seeds in January in slight heat, and plant out in April or early May. The month of August is the best time to transplant Lilium candidum. In early April Iris stylosa may be divided and replanted with impunity. The species requires a warm position.

THE GREENHOUSE.

Geraniums from seed (*E. D.*).—Geraniums are easily raised from seed, which, in the case of many varieties, ripen readily. The seed should be kept until the spring, and then, early in March, be sown in ordinary potting compost, such as a mixture of loam, leaf-mould and sand. In a temperature of 50° to 60° the seed will soon germinate, and when the young plants have developed their first rough leaf they should be potted singly into small pots. The young plants should be kept in a good light position, and if shifted on into larger pots when necessary, they will by August be established in pots 5 inches to 6 inches in diameter. If unstopped, some of them will by then be probably a yard high, with a good deal of naked stem at the bottom. By allowing them to run up in this way, many of them will flower the first season, when the inferior ones, of which there are sure to be some, can be rejected and the promising ones grown on for the following year. If the seedlings are stopped during their early stages in order to obtain a bushy habit, better-shaped plants result; but, at the same time, one has to wait till the second year for them to flower.

Begonia mite (*B. J. B.*).—Dip the plants in a wash made by dissolving a handful of soft soap, in which flowers of sulphur have been thoroughly kneaded, in one and a-half gallons of water.

Harrison's Musk as a window plant (*D. K., Cheshire*).—A plant of Harrison's Musk might certainly be shown as a window plant, providing, of course, it has been grown in a window. If the judges enforce the strict letter of the law, a plant that had been grown or finished off in a greenhouse would be liable to disqualification. It is, however, in many cases a difficult matter to prove. The plant will be greatly benefited by a weekly dose of some stimulant from now till the time of the show. Take care not to use it too strong.

Propagating the Oleander (*M. L.*).—This is readily propagated by cuttings of the young shoots taken as soon as they have lost their succulent character. These cuttings, taken off at a length of about 4 inches, should be dibbled into well-drained pots of sandy soil, and placed in a close propagating-case in gentle heat. With due attention with regard to shading, watering and other matters the cuttings will soon root, when they must be hardened off and grown on afterwards in the greenhouse. A suitable compost may be made up of two parts loam to one part of peat or leaf-mould and a good sprinkling of sand. Cuttings of the Oleander may also be struck entirely in water, one or two shoots being put into a phial filled with rain-water and placed in a warm shaded structure. Cuttings struck in this way need far more attention in potting off, also during their early stages, than those rooted in soil.

Lilies not doing well (*Mrs. A. J.*).—Your non-success with Lilium auratum is, in all probability, largely owing to the bulbs being planted too late. At the same time, under any conditions Lilium auratum is a decidedly erratic Lily, for even the most practised hands often experience failure with it. Newly-imported bulbs are the most satisfactory. The best bulbs, as a rule, reach here from Japan in the months of December and January, and they should be potted as soon as possible after this. Importations reach here earlier, but, generally speaking, they are not so well ripened as the later ones, and consequently cannot be expected to yield as good results. Concerning Lilium Harrisii, the Bermuda-grown bulbs reach here in August, and should be potted as soon as possible; but the Japanese ones, which arrive in November and December, may be given much the same treatment as L. auratum. For L. longiflorum 6-inch pots are large enough for the finest bulbs.

FRUIT GARDEN.

Strawberry failure (*A. E. G.*).—The appearance of your Strawberries suggests that either the water supply in the soil is short or something is damaging the roots. Possibly by digging some insects will be found. We suppose the roots have not been damaged by digging too late in the season between the rows.

Planting a Vinery (*Ash*).—The best time to plant will be in spring, just before the growth commences, say, early in March, and this is also the best time to make the new border. The soil will then be sweet and fresh, whereas if the border were made in autumn and the Vines also planted then, the new soil would be saturated by winter rain, and possibly many of the roots of the Vines would be injured by hard frost and too much wet, and consequently would be in a weak condition by the spring, when vigorous growth is so important. The varieties requiring the least heat to bring to maturity are the following: Black Hamburgh (black), Madresfield Court (Muscat), Foster's Seedling (white) and Buckland Sweetwater (white).

Raspberries for flavour (*Austria*).—The sweetest flavoured of the red Raspberries are, we think, Carter's Prolific and Fillbasket. The best-flavoured golden-coloured varieties are Antwerp and The Guinea. We are most gratified by your appreciation of THE GARDEN.

Grapes withered (*W. E. C.*).—The Grapes are suffering from a disease termed "scalding." It is caused by a too late or imperfect ventilation on bright, sunny mornings while the internal atmosphere and the berries are saturated with the condensed moisture of the night. To prevent this, ventilate freely during fine weather, both day and night, and never entirely close the ventilators.

Early and late Strawberries (*F. B. C.*).—The earliest Strawberry to ripen is Alphonse XIII., Royal Sovereign coming next; it is a good, all-round sort. The best Strawberries for flavour are Laxton's Epicure and The Countess, both midsummer varieties, and, of course, British Queen. This is the best-flavoured of all, but does not succeed well in all soils. A few plants should certainly be tried. The best late varieties are Waterloo and Laxton's Latest of All.

Caterpillars on Gooseberry trees (*B. E. H. B.*) The caterpillars on your Gooseberries are in all probability those of the Gooseberry sawfly. The bushes should be sprayed as soon as the caterpillars appear in April with lead arsenate, or dusted or sprayed with Hellebore powder. Hand picking may be practised with advantage where only a small number of bushes have to be dealt with. The removal for deep burial of the top 3 inches of soil from under the bushes and its replacement with fresh will cause the destruction of many of the pests in the chrysalis stage. Specimens should always accompany queries.

Peach and Nectarine fruits attacked by wasps (*Mrs. W.*).—It would be difficult to place these fruits in muslin bags at the time they are approaching ripeness without spoiling the fruit, and we would not advise you to make the attempt. A better way is to cover the whole of the trees with a material termed "Frigi Domo." It is in the form of a thin netting, air being admitted, but no insect pests can get through. Bottles containing beer and sugar should be suspended from the trees in case any wasps should force an entrance under the net. They will then go for the beer and sugar instead of the fruit. The fruit should be fully grown and on the point of turning colour before the shading is applied. The "Frigi Domo" can be obtained from any seed or sundries merchant advertising in THE GARDEN.

MISCELLANEOUS.

Wood-ashes (*R. R.*).—Wood-ashes owe their value as manures mainly to the quantity of potash they contain. There is also some phosphoric acid and a good deal of lime. Ashes which have not been exposed to the washing action of the rain have an average content of potash, 5·5 per cent.; phosphoric acid, 1·9 per cent.; and lime, 34·4 per cent. Their chief value is on light soils, where they may be used at the rate of 12cwt. to 14cwt., or even more, to the acre for any crops which require potash, *e.g.*, Potatoes, Cabbages and so on.

Grubs on Solomon's Seal (*Highatonian*).—The grubs from the Solomon's Seal are those of a sawfly, Phymatocera atessima. The fly which lays the eggs appears in May, and the larvæ, when fully fed, descend to the earth, where they hibernate, probably in small earthen cells. No doubt they were present in previous years in small numbers, but have made themselves more noticeable this year by their greater abundance. Hand picking or spraying with lead arsenate or Paris green, or dusting with Hellebore powder, would probably be suitable methods of getting rid of the pest.

Ants on a lawn (*M. D. C.*).—Ants may be got rid of from a lawn by tracing them to their nest and making two or three small holes in it. Pour in each hole about a quarter to half an ounce of carbon bisulphide. The fumes are very unpleasant and explosive. They are deadly to animal-life, but plants are little affected. The operation is best performed when the ants are at home in the evening.

Bare patches on a lawn (*Criss*).—It is not possible to say what is the reason of your grass dying without seeing the lawn. We should, however, advise you to remove the bad turf in autumn and take away 6 inches of the soil from below it; then make up the deficiency with fresh soil and obtain new turf. It is not possible to do anything now to improve the lawn for this summer.

Insects from Plums, &c. (*Verona*).—(1) The cocoons are those of one of the ichneumons, the larvæ of which feed inside the body of a caterpillar, which in its turn probably fed on the Plum tree; useful. (2) The larvæ of the ladybird; feeds on green fly; useful.

No. 6 were chrysalides of the ladybird. (3) The larvæ of the hover fly; feeds on green fly; useful. (4) The blisters have been produced by a mining insect, but what are known as the larvæ have escaped. Not likely to prove really troublesome unless in great numbers. (5) The galls have been produced by the gall-mite (Eriophyes similis); this is rarely troublesome.

Galls on Rose leaves (*Miss C. E. J.*).—The round, smooth, reddish galls on the Rose leaves are formed by a small four-winged fly called Rhodites rosæ.

Rose leaf-curl (*N. B.*).—Your Roses are attacked by the Rose leaf-curl, which is believed to be caused by insect punctures, but which we think is caused by sudden climatic changes. You could do nothing to mitigate the defect beyond cutting off the most affected leaves and shoots.

Injury to Sweet Peas (*E. T.*).—The Sweet Peas are apparently affected to some extent with the "stripe disease," as it is sometimes called. The fungus remains in the soil, and there is great danger of a crop of a similar kind being attacked if planted in the same soil the succeeding year. Attend carefully to the water supply and keep a loose mulch on the surface.

Flies for identification (*J. A. A. W.*).—The flies sent are not Narcissus flies, but are known as hover flies, and belong to the species Eristalis arbustorum. They are smaller, less hairy, and less bee-like than the Narcissus fly, and are quite different in some other less noticeable ways. The sound they make in flying is altogether different. They are rather useful than otherwise in the garden.

Columbine leaves diseased (*Miss A. W.*).—The marks on the foliage of the Columbines are due to the presence of a small white grub, which has been feeding in between the two surfaces of the leaf and formed a tunnel there. The grub will eventually become a two-winged fly. If it is troublesome it could be killed by squeezing the affected leaves between the finger and thumb; or you might try the effect of spraying with a nicotine solution. Cutting off and burning the leaves would be an effective means if it were done thoroughly.

House sewage for garden crops (*T. K. C.*).—When used in a diluted state and in a fresh condition, kitchen garden crops, Roses and other plants in borders in a condition of active growth will be benefited by an occasional watering with such sewage, say, once in ten days in hot weather; but such sewage should never be applied when it has been standing long. It is then in a putrid condition, with a foul and offensive smell. When in this condition it should be poured over the soil where no crops are, and be dug in. It will then soon be deodorised and the soil improved for the next crop.

Names of plants.—*T. F.*—As far as we can tell, the Rose is Mrs. Cutbush, but you should send a piece of growth and say if it is a climber or not.——*H. M.*—1, Please send when in flower; 2, Pittosporum undulatum; 3, Asplenium Filix-fœmina var. multifidum cristatum; 4, Aspidium angulare; 5, please send when in flower.——*W. S. A.*—1, Cephalaria alpina; 2, cannot name from such a poor scrap.——*Mrs. C., Tantobie.*—Phacelia congesta.——*A. Forrest.*—The Rose is a wichuraiana, probably Pink Roamer.——*Roses, P. C.*—Pink, Wedding Bells; blush, Polyantha simplex.——*A. M.*—The five Carnations sent seem to be seedling forms. No. 4 is the only one worth growing; it is of fairly good form and distinct in colour.——*J. A., Wincanton.*—1, Hoya carnosa; 2, a variety of Ulmus glabra.——*W. M.*—Spiræa discolor.

SOCIETIES.

NATIONAL CARNATION AND PICOTEE SOCIETY.

SOUTHERN SECTION.

THE above society held its annual exhibition at the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday, July 25. The long spell of hot, dry weather left unmistakable signs on many of the flowers exhibited, and at the same time prevented many would-be exhibitors from putting in an appearance. Mr. James Douglas was again well to the fore as an exhibitor, and succeeded in winning the Cartwright Challenge Cup in the open classes, also the society's cup for the highest aggregate number of points in the first division of the schedule. Mr. H. Mathias secured the society's cup for the highest aggregate number of points in the second division. Messrs. C. A. Linzle and Linington secured similar awards for the third and fourth divisions respectively.

FIRST DIVISION.—FLOWERS ON CARDS.

Stand of eighteen blooms, bizarres and flakes: First, Messrs. Arthur R. Brown, Limited, King's Norton—the best blooms were Joseph Jester, J. S. Hedderley and Briar Lee; second, Mr. James Douglas, Great Bookham.

Stand of eighteen Carnation blooms, on cards, fancies: Mr. Douglas was first with a truly grand display. Among the best blooms were Linkman, Earl King, Ironside and Hidalgoa. Second, Messrs. A. R. Brown, Limited.

Stand of eighteen Picotee blooms, white ground: Mr. Douglas was again first with a neat display. His best blooms were Fair Maiden, Queen of Spain and Mrs. Herbert. Second, Messrs. A. R. Brown, Limited.

Stand of eighteen Picotee blooms, yellow ground: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

FLOWERS SHOWN AS GROWN.

Six varieties, Carnation blooms, in six vases, selfs, three blooms of each variety, with Carnation foliage: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

Six varieties, fancies, other than white ground, three blooms of each variety, with Carnation foliage: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

Six varieties, white-ground fancies, three blooms of each variety: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

Six varieties, Picotee blooms, in six vases, yellow ground: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

Twelve distinct varieties, selfs, fancies, and yellow-ground Picotees: First, Mr. J. Douglas; second, Messrs. A. R. Brown, Limited.

SECOND DIVISION.—FLOWERS SHOWN ON CARDS.

Stand of twelve Carnation blooms, on cards, bizarres and flakes: First, Mr. H. R. Taylor, Cheam; second, Mr. C. F. Thurston, Wolverhampton.

Stand of twelve Carnation blooms, on cards, fancies: First, Mr. A. W. Jones, Birmingham; second, Mr. C. F. Thurston; third, Mr. W. H. Parton, Moseley. A very strong class.

Stand of twelve Picotee blooms, white ground: First, Mr. H. R. Taylor, Cheam; second, Mr. C. F. Thurston; third, Mr. H. Mathias, Medstead.

Stand of twelve Picotee blooms, yellow ground: First, Mr. H. Mathias; second, Mr. C. F. Thurston; third, Mr. W. H. Parton.

FLOWERS SHOWN AS GROWN.

Four varieties, selfs, three blooms of each variety, with Carnation foliage: First, Mr. A. W. Jones, Stechford; second, Mr. R. Morton, Woodside Park; third, Mr. H. Mathias, Medstead. This class was well contested. The varieties Mrs. George Marshall and Elizabeth Shiffner were the two best in the class.

Four varieties, fancies, other than white ground: First, Mr. H. Mathias; second, Mr. A. W. Jones; third, Mr. W. H. Parton. Another good class, in which Lord Steyne and Linkman were shown in good form.

Four varieties, white-ground fancies: First, Mr. H. Mathias, the only exhibitor.

Four varieties, Picotee blooms, yellow ground: First, Mr. R. Morton; second, Mr. W. H. Parton; third, Mr. H. Mathias.

Mr. Parton was first for nine distinct varieties, selfs, fancies, and yellow-ground Picotees, closely followed by Messrs. Mathias and Taylor in the order named.

THIRD DIVISION.—FLOWERS ON CARDS.

Stand of six blooms, bizarres and flakes, dissimilar varieties: First, Mr. J. J. Sheldon, South Woodford; second, Mr. C. A. Linzle, Alresford; third, Mr. F. N. Goodfellow, Walsall.

For a stand of six fancies Mr. Goodfellow was first; second, Mr. E. J. Price, Bournville; third, Mr. C. A. Linzle. This proved to be one of the best-contested classes in this division.

Stand of six Picotee blooms, white ground: First, Mr. G. D. Ford, Acocks Green; second, Mr. F. W. Goodfellow; third, Mr. E. J. Price.

Mr. Goodfellow secured first place for a stand of six Picotee blooms, yellow ground, closely followed by Messrs. Linzle, Ford and Price in the order named.

FLOWERS SHOWN AS GROWN.

Three blooms, one variety only, pink or rose selfs, with Carnation foliage: First, Mr. F. W. Goodfellow; second, Mr. L. Hart, Hertford.

Three blooms, white selfs, with Carnation foliage: First, Captain A. Gordon Russell, Wheatley; second, Mr. L. Hart.

Three blooms, one variety only, in one vase, dark red or maroon selfs: First, Mr. C. A. Linzle; second, Mr. E. J. Price.

Three blooms, yellow selfs, with Carnation foliage: First, Captain A. Gordon Russell with three grand blooms of Daffodil; second, Mr. F. W. Goodfellow with the variety Ann Hathaway.

Three blooms, one variety only, in one vase, red or scarlet selfs: First, Mr. Goodfellow with Cardinal, second, Mr. G. H. Lawrence, Godstone, with the variety Miss Willmott.

Captain A. Gordon Russell was first for three blooms, one variety only, yellow-ground Picotees, showing Mrs. W. Heriot.

Mr. E. J. Price was first for three blooms, buff or terra-cotta selfs, with the variety Elizabeth Shiffner.

Mr. C. A. Linzle was first for three blooms, yellow or buff ground fancies, showing Lord Steyne in good form.

Three blooms, fancies, other than yellow, buff or white ground: First, Mr. Aubrey Spurling, Borough Green, with a beautiful seedling of lavender and crimson hues.

Three blooms, one variety, white-ground fancies, with Carnation foliage: First, Mr. F. W. Goodfellow with the variety Nizam.

Three selfs, any other colour not previously mentioned: First, Mr. L. Hart, showing a purple-coloured seedling.

Six distinct varieties, selfs, fancies and yellow-ground Picotees: First, Mr. C. A. Linzle; second, Mr. E. J. Price; third, Mr. G. D. Ford. This was a well-contested class.

FOURTH DIVISION.

Six Carnation blooms, in vases, selfs: First, Mr. J. H. Linington, Newport; second, Miss Kingsford, Fulham.

Mr. Linington was also first for six fancies, six Picotees on yellow ground, and for nine blooms, three distinct varieties, selfs or fancies, or yellow-ground Picotees.

The Martin Smith Memorial Cup was awarded to Mr. R. Norton for twelve distinct varieties, selfs, fancies and yellow-ground Picotees, in separate vases, three blooms of a variety in each vase, with Carnation foliage only. Second, Mr. W. H. Parton; third, Mr. H. R. Taylor

CLASSES OPEN TO ALL.—FLOWERS SHOWN AS GROWN.

Nine blooms, one variety only, pink or rose selfs, with Carnation foliage: This class was won by Mr. H. Mathias with the variety Mrs. Flight.

Nine blooms, one variety, white selfs: First, Mr. J. Douglas with Kate Nickleby.

Nine blooms, dark red or maroon selfs: First, Messrs. A. R. Brown, Limited, with Mrs. George Marshall.

Nine blooms, yellow selfs: First, Mr. H. Lakeman with Daffodil.

Nine blooms, one variety, red or scarlet selfs: First, Mr. J. Douglas with Adonis.

Mr. H. Mathias was first with Togo in the class for nine blooms, yellow-ground Picotees.

Nine blooms, buff or terra-cotta selfs: First, Miss Shiffner with the well-known variety Elizabeth Shiffner.

Nine blooms, yellow or buff ground fancies: First, Mr. J. Douglas with the variety Pasquin. This vase was awarded the prize as the best premier fancy Carnation in the exhibition.

Mr. J. Douglas was also first for nine fancies other than yellow or buff ground, showing The Bride.

Mr. E. J. Price secured the premier place for dinner-table decorations. The competition was, however, rather poor.

NON-COMPETITIVE GROUPS.

A number of groups of a similar nature to those staged at the fortnightly shows of the Royal Horticultural Society were to be seen.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, put up a collection of Perpetual-flowering Carnations.

Mr. Charles Blick, Hayes, Kent, showed a wonderful collection of border varieties, and of them the last year's novelty, Donald Macdonald, was particularly attractive.

Messrs. Barr and Sons, Covent Garden, had a nice group of herbaceous plants, comprising Phloxes in great variety, Watsonia Ardernei, Kniphofias and Delphiniums.

A fine bank of Phloxes of exquisite colours was arranged by Mr. Maurice Prichard, Christchurch.

A group of border Carnations was shown by Messrs. Phillips and Taylor, Bracknell. Among the best varieties were R. A. Rowberry, Francis Samuelson, Father O'Flynn (a last year's novelty) and Lord Steyne.

Mr. Lakeman, Thornton Heath, also had an exhibit of Carnations. The flowers looked particularly fresh after the recent trying weather.

A very extensive group of Ferns was arranged by Messrs. H. B. May and Sons, Upper Edmonton.

NEW SEEDLINGS.

There were no new seedlings of outstanding merit. The best self-coloured seedling was shown by Messrs. A. R. Brown, Limited. The new-comer is named Mrs. F. J. Johnson; it is of deep crimson colour. Ariel, a new yellow-ground Picotee with a light pink edge, was shown by Mr. H. Mathias. Both of the novelties named were awarded first prizes in their special classes.

PREMIER BLOOMS.

Awards to the premier blooms selected from the whole exhibition were as follows:

FLOWERS SHOWN AS GROWN.

Mr. George Marshall, deep crimson self. Shown by Mr. A. W. Jones.

Pasquin, fancy, yellow ground, splashed and striped lavender. Shown by Mr. James Douglas.

Her Majesty, heavy-edged yellow-ground Picotee. Shown by Mr. R. Morton.

Togo, light-edged, yellow-ground Picotee. Shown by Mr. H. Mathias.

FLOWERS ON CARDS.

Gordon Lewis, flake. Shown by Mr. H. R. Taylor.

Mary D. Anstiss, heavy-edged, white-ground Picotee. Also shown by Mr. H. R. Taylor.

Lavinia, light-edged, white-ground Picotee. Shown by Mr. E. J. Price.

Onward, light-edged, yellow-ground Picotee. Shown by Mr. J. Douglas.

NORTH BERWICK ROSE SHOW.

THE annual show of the North Berwick Rose Society was held in the Foresters' Hall, North Berwick, on July 22. The show was in three sections—members, members or non-members, and cottagers. The entries were excellent, while the quality of the exhibits, as a whole, was very high for this show. Roses in the several classes were very fine. Sweet Peas were also provided for in the schedule, and these were of very high quality; while the classes for Violas were also good. The leading class, that for twenty-four Roses, not more than four of one variety, included a number of blooms of high quality, the first prize falling to Mr. Hall Blyth, Kaimend. That for twelve blooms (also confined to members) and in distinct varieties went to Mr. H. E. Crum-Ewing, Nevis, with good flowers. Mr. Crum-Ewing was also first for Tea Roses. Mr. P. H. Coats, Kilria, had the best bloom of Hybrid Perpetual or Hybrid Tea, and also the best bloom of Tea or Noisette. The Rev. Dr. P. H. Waddell won the first prize for a basket of Roses with one of much beauty, and Mr. Hall Blyth was first for four vases of decorative Roses. Mr. P. H. Coats was first for six Hybrid Tea Roses, distinct; also for six Hybrid Perpetuals and for six Teas. For six Roses, not more than two of one variety; Colonel Chalmers, Gordon Bank, took the leading award. Mr. Percy Dawson had the best six white Roses, and Mr. J. Craig was first for six pink Roses, with Mr. P. H. Coats leading for six red. The Rev. Dr. Waddell led for sprays of Violas with an exhibit of much beauty. For bunches of Sweet Peas the leading prize-winner was Mr. G. Dalziel, Redholm. The cottagers' section was highly creditable to the exhibitors.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C

ANNUAL FLOWERS AND THE DRY WEATHER.

DURING recent years hardy and half-hardy annuals have played an important part in the floral schemes of our gardens and homes, and, instead of now being regarded as weedy and of little use, they have been given a place second only to the best herbaceous flowers. No doubt the popularity of these annuals has, in a large measure, been brought about by the vast improvements that have been wrought among them during recent years. In habit and colour of the flowers many kinds and species have been almost revolutionised, thanks to the efforts of our leading seedsmen at home and in the Colonies. Owing to the important *role* that annuals now fill, their behaviour during the excessive heat and drought that has been experienced this summer has been, to say the least of it, disappointing. Even in gardens where they have received the very best attention, many annuals have been almost a failure, the flowers that were produced being too fugacious to be of value.

Yet the failures and successes that have been experienced this year are not without their lesson. Just as there are Roses that require dry weather and others wet to bring them to perfection, so there are annual flowers that delight in drought and others in moisture. We were reminded forcibly of this when visiting the trial-grounds of Messrs. Sutton and Sons at Reading one day last week. Here, on rather light soil, on which no measurable quantity of rain had fallen for six weeks, many of our favourite annuals had suffered severely, but others had withstood the excessive dryness and heat, and were flowering more freely than we have seen them for several years. It may be urged that the present summer has been abnormal, and that we are not likely to get similar conditions again for many years. Notwithstanding this, there are many gardens wherein the soil is naturally dry and hot during an average summer, where it is difficult to induce many annuals to grow, and in such gardens those that we saw flowering well at Reading this year might reasonably be expected to create a brilliant display.

Perhaps the best of all was a dwarf form of the deliciously-scented East Lothian Stock. The seeds of this were sown in February in a frame, and the seedlings put out in the open field in May. Compared with other Stocks, this strain easily held the lead, and the range of colours in it was wide enough to please most tastes. The dwarf Tropæolums or Nasturtiums, flowers that most gardeners ruin by kindness, were revelling in the sunshine, their dwarfed growth inducing them to create a gorgeous picture of many hues. For poor, hot, sandy soil the Nasturtium may be regarded as an ideal annual, and to manure it and water it freely is to court leaves at the expense of flowers. French and African Marigolds appeared to delight in the drought. Dwarf and tall forms alike were flowering freely, and at a date that is early for them. Miniature Lemon of the French section is a little gem and, combined with the purple Verbena venosa, made a beautiful effect worthy of reproduction in the best of gardens. Although strictly a perennial, many find it convenient to grow this Verbena as an annual, owing to its tendency to die during the winter. Verbena pulcherrima and the ordinary bedding varieties also appeared to ignore the drought, and were flowering more freely than usual.

Petunias, those shy flowers in many gardens, were a blaze of colour, dwarfer in growth than usual, it is true, but the flowers were there in abundance and standing up well above the foliage, which this year is scant. Leptosiphon hybridus, with its myriads of beautiful little star-shaped flowers of many colours; Antirrhinums, Godetias, Eschscholtzias (especially the beautiful Mandarin), pot Marigolds, that most gorgeous of all annuals, Portulaca grandiflora; Sanvitalia in double and single forms, reminding us of a prostrate miniature Sunflower; the true Sunflowers, especially the miniature forms; Salpiglossis, Hibiscus africanus, with its cream, cup-shaped, purple-eyed blossoms; Coreopsis, Scabious and annual Chrysanthemums were all thriving and flowering freely, and apparently enjoying the drought that had meant a lingering death to many of their less fortunate brethren. It is in such trial-grounds as Messrs. Sutton's that many lessons may be learnt, and although the season may have been disappointing in many ways, it teaches us the value of good cultivation and careful selection of flowers or vegetables for various soils and situations.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 14.—United Horticultural Benefit and Provident Institution's Committee Meeting.

August 15.—Royal Horticultural Society's Committee Meeting (no exhibition). Clay Cross Horticultural Society's Show. North of England Horticultural Society's Show at Harrogate. Northern Carnation Exhibition.

August 16.—Exmouth Horticultural Show (two days). Banff Flower Show. Capel Flower Show. Wiltshire Horticultural Society's Show.

August 17.—Aberdeen Royal Horticultural Society's Show (three days). Deal, Walmer and District Flower Show. Hawkshead Flower Show. Flamborough Horticultural Show.

August 19.—Seascale and Lake District Horticultural Show. Ambergate Flower Show. Hugglescote Flower Show.

Our Special Daffodil Number.—The announcement in our last issue to the effect that we were devoting the greater part of our issue for next week to the Daffodil has created a great deal of interest, and Daffodil-lovers throughout the country are evidently looking forward with pleasure to its publication. As stated last week, this issue will be larger than usual, and will contain a vast amount of information relating to the Daffodil. Three of our most eminent raisers of new varieties, viz., Mr. F. Herbert Chapman, Brodie of Brodie and Mr. W. A. Watts, give their experiences in this fascinating work, together with lists of suitable varieties for the amateur to commence with. Diseases of Daffodils, the growing of Daffodils in pots and in fibre, planting Daffodils in grass, varieties for town gardens, and the Rev. J. Jacob's lists of varieties for show purposes are only a few of the features of this unique issue, the price of which will be one penny. Extra copies should be ordered in advance, as there is certain to be a large demand.

Gladiolus exhibition in London.—On Wednesday, Thursday and Friday of last week, Messrs. Kelway and Son of Langport, Somerset, had a beautiful exhibition of their modern Gladioli in the Palm Court at Messrs. Selfridge's, Oxford Street, London, W.C. About 1,000 spikes were on view, and the many beautiful colours among them were quite a revelation to many of the visitors. Apart from their value in the garden, these Gladioli are excellent for cutting, as flower-buds open well in water. Messrs. Kelway have done a great deal to improve and popularise the Gladiolus, and this exhibition gave many an opportunity of seeing the flowers under somewhat novel conditions.

The National Vegetable Society's exhibition.—The second annual exhibition of the National Vegetable Society is to be held in the Horticultural Hall, Vincent Square, Westminster, on Wednesday, the 30th inst. Notwithstanding the severe drought that has been experienced in practically all parts of the country, the exhibition promises to be a great success, and we hope our readers will do all they can to support the committee in bringing before the public a display of high-class vegetables. The schedule, copies of which can be obtained post free from the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow, contains particulars of classes to suit both large and small growers, and in many cases the prizes are very good indeed. Entries for all classes will be received up to the 21st inst., so there is still time for those who have good vegetables to try to win some of the prizes offered. In addition to the particulars relating to this year's show, the report of the committee on the trials of vegetables held last year is embodied in the schedule.

Ashby and District Cottage Gardeners' Society.—The second exhibition of this society, the classes of which are open chiefly to the allotment-holders and cottage gardeners in the neighbourhood of Ashby, will be held on August 16 at the Town Hall, Ashby. There are no fewer than eighty classes given in the schedule, some of which are of a novel character. For instance, prizes will be awarded for the twelve heaviest Gooseberries, six heavy-weight Potatoes and the two heaviest-weight Marrows. The special object of this society is to promote and encourage the cultivation of cottage gardens among workingmen, and we wish the society every success in its endeavours. The secretary is Mr. T. B. Whittaker, Avenue Road, Ashby-de-la-Zouch.

CORRESPONDENCE.

(*The Editor is not responsible for the opinions expressed by correspondents.*)

Roses American Pillar *versus* **Dorothy Perkins.**—In the article in your issue of July 29 on American Pillar as a weeping Rose, I notice you speak of the clusters as "not, of course, so large as Dorothy Perkins." I am sending three flowering spikes of American Pillar from plants which I budded last August on standard Briar stocks, which I venture to think will compare favourably as regards numbers of blooms with clusters of Dorothy Perkins or any other variety. You will see that No. 1 has borne 106 blooms; No. 2, 93; and No. 3, 80.—J. KIRKWOOD, *Finchley*. [The flowering spikes were indeed vigorous, and we do not remember having seen Dorothy Perkins in larger trusses.—ED.]

Cydonia japonica.—This, the Japanese Quince, is more commonly found growing against walls than in the open ground, but that it is well fitted for the latter position is evidenced by the fine bushes one occasionally meets with in the South of England. One of the finest bushes I remember existed in the gardens attached to Wimbledon House a few years ago. This must have been upwards of 12 feet high and 15 feet in diameter, and it flowered profusely each spring. The most floriferous examples are usually those of somewhat stunted growth; therefore it is better to plant in soil of moderate quality rather than in that of a rich nature. This stunted character with spurry growths may be induced to a great extent by frequent pruning. An example well known to the writer occurs in the form of a short hedge in a cottage garden. This is trimmed with shears once or twice each year, and it blossoms excellently. Specimens growing against houses have, of necessity, to be frequently pruned, and they usually bloom well, for in time the branches become thickly studded with spurs. The well-known red flowers of the type are common everywhere, but the varieties, of which there are many, are less frequently met with. These varieties differ greatly in the colour of the flowers, for while some have deep blood red blossoms, others may have pink, white or parti-coloured blooms. Cardinalis, with deep red blooms; camelliæfolia, with semi-double light red flowers; candicans, with white; luteo-viridis, with greenish yellow; Moerlœsii, with pink and white; and princeps, with deep red blossoms, are among the best. In addition to the usual methods of culture adopted for Cydonia japonica, it is an excellent plant for placing against the pillars of a pergola or summer-house, while it may be made to serve as a column in a formal part of the garden.—W. D.

A useful herbaceous border plant.—The staying power of all hardy plants has been well tested during this present summer. Many reliable favourites of other years have barely opened before they commenced to wane, in spite of careful watering. But there has been one plant which, with us, has eclipsed all others for durability and freshness through the long, hot spell. I refer to Erigeron speciosus superbum. Though it has been growing on a south-west to west border and has had but scant watering, it has only just collapsed—the last two or three days of July. In appearance it resembles the Michaelmas Daisy; it is easily grown and very free-flowering. The colour of the flowers is mauve or pale blue. The same plant is sometimes called Stenactis instead of Erigeron.—C. TURNER.

A plea for the autumn sowing of hardy annuals.—When in the quaint Surrey village of Puttenham, on the southern side of the famous Hog's Back, last month, I saw in a cottage front garden some of the finest examples of Godetia Lady Albemarle I had ever met with. They were from 18 inches to 20 inches in height, stood singly, and formed perfect pyramids of beautiful blooms. They were so fine that attention to them would have been arrested anywhere. The grower, who was the village blacksmith, told me that he sowed seed in the open ground early in September, and the plants remained where sown, fully exposed all the winter, then were lifted and planted where they were blooming in the following April. Of how many other glorious hardy annuals might not similarly fine growth and results be obtained! How much would the autumn sowings of these simple hardy flowers be popularised would some seedsman speedily make sowings in pots of all the best kinds, wintering them in cold frames, then getting them in blocks into large pans to have them in bloom next May. What an attractive feature a group of fifty pans and varieties would be at the International Exhibition!

A Northern Sweet Pea trial.—I am interested to note that your Sweet Pea correspondent "A. B. Essex" advocates the provision of a Sweet Pea trial in the North as well as in the South by the National Sweet Pea Society. As I urged such trial being provided at a meeting of the society some two years since, I may say that imitation is the sincerest form of flattery. It has long been evident that such a Northern trial is an absolute necessity if new Sweet Peas are to be tested under full and fair conditions, and if the society can secure anywhere northwards, not less than 100 miles from London, ground and conditions as favourable as are presented at Sutton Green, and where the fullest impartiality in culture can be furnished, then not a day should be lost in obtaining such a site for a Northern trial. It is one of the weak features of all trial-grounds that they are too localised. To thoroughly test Sweet Peas or other products, it is needful that trials be conducted on the same lines in diverse parts of the kingdom. To Northern members of the society the provision of a Northern trial seems to be a simple act of justice, and I hope that such members will endeavour to get the executive committee of the society to quickly move in the matter.—A. D.

A remarkable Lily.—I enclose a photograph [Unfortunately, not suitable for reproduction.—ED.] of a fasciated stem of Lilium szovitzianum grown in a border of Lilies here. It ha

fifty-five well-developed flowers. Is not this rather unusual?—G. St. Quintin, *Kincurdy, Forfrose, N.B.*

Secret commissions. — I am desired by the Committee of the Secret Commissions and Bribery Prevention League, Incorporated, to warn your readers against the practice of certain foreign firms who are in the habit of offering British gardeners a secret commission. One catalogue, for which I have to thank an honest gardener, has the words written upon an inside page in pencil, "5 per cent. discount for head-gardeners." Another firm, which exports bulbs, has just written to a gardener asking for his private address. Illustrations of such practices might easily be multiplied, but the object of this letter is to put those who employ gardeners on their guard, as some of the offending firms have neither agents nor travellers in this country, and the Prevention of Corruption Act, which prevents British firms from giving secret commissions, affords no remedy in such cases.—The Secretary of the Secret Commissions and Bribery Prevention League, Incorporated.

The drought and its lesson. — I have been in many counties, north, south, east and west, over many farms, in many gardens and among allotments. The general effects of the drought and heat are almost terribly apparent throughout the country, and to those who have eyes to see, those effects are very significant. Without unduly stating the case, the summer of 1911 has been a very severe test of—what? Why, of cultivation. It has rendered the commonplace advice of "copious watering" almost of no effect. Such a drought, combined with intense heat, cannot readily be resisted, though the water be flowing all the day. Indeed, in almost numberless cases copious waterings are removed from the category of "possible" remedies because of the inaccessibility of the means of applying them. I am more than ever of opinion that we can only defy such heat and drought by anticipating them, that is, by preparing for them in the autumn and winter, and the only tool to do this with is the spade. I have been in gardens within the last month where "copious waterings" were out of the question on account of the water supply being exhausted, yet the crops have been nothing short of luxurious. Almost side by side have been other gardens where flowers and vegetables have given up any attempt to develop, barely hanging on to life. Why this great difference? The answer was demonstrated to me—"deep cultivation." In the former gardens I could run my walking-stick a couple of feet into the soil; in the latter it was impervious. While of late years the value of deep cultivation has become more recognised than it formerly was, there is yet great need of proclaiming its potentialities. None but the enthusiast can fully appreciate the value of a fine tilth, that thorough disintegration of the soil to a depth of (where the subsoil will permit), say, 18 inches. The "ethics" of digging are too often overlooked—it is, alas! too often but a mechanical operation of "turning over the soil," an operation left to the tender mercies of the day labourer. In very truth, digging, with all that it implies, is one of the most scientific and important operations in the whole of the gardener's calendar, for unless it be well and truly done the crops cannot attain their full fruition. I need not here give the why and the wherefore of this—they can be found in any acceptable text-book; but perhaps a word at the right moment, at the moment when object-lessons abound before our eyes, will have greater weight than the same word spoken when the need is not so palpable.—J. J. F.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

WINTER ONIONS.—These may be sown any time between the middle and the end of the present month. Although it is not necessary to use a lot of fresh manure when preparing the ground for this crop, Onions require a fairly rich, deeply-tilled soil. The surface must be broken up finely, and should it be dry enough at the time, it may be trodden and raked over. Sow the seeds in drills about 15 inches apart and draw a thin covering of fine soil over them. Giant Lemon Rocca and Ailsa Craig are excellent varieties.

Spring-sown Onions.—There is every prospect of this crop being matured at an unusually early date; therefore every encouragement must be given the plants to grow during the next few weeks. Diluted liquid manure will be of much benefit, but it should not be given while the bed is very dry. Give a good watering with clear water first.

Leeks.—Early plantations of these have required a lot of watering, as the season has been unusually dry. They will now require liquid manure. Continue to earth up the plants as they require it. Young plants may still be put out for later use. In transplanting endeavour to move them with as little disturbance to the roots as possible.

Celery.—The work of putting out the plants this season has required more care and trouble than usual through the continued dry weather. The earliest plants may now be given diluted liquid manure. In the absence of rain, the whole of this crop must be frequently watered. A sharp look-out must be kept for the Celery fly, as this pest will, no doubt, be troublesome after the long spell of dry weather. An occasional dusting with soot helps to keep the plants clean.

Peas.—I am afraid the main crop of this important vegetable will have suffered considerably from the drought. Notwithstanding frequent heavy waterings, the weather has been so hot that the pods have failed to fill and mature perfectly. Later crops must be well supplied with moisture, and, if possible, they should be heavily mulched.

Runner Beans.—Like the Peas, these have required plenty of water. They must still be well attended to in this matter if the weather continues to be dry. The foliage should also be sprayed late in the evening after a hot day.

Flower Garden.

Propagating.—The hot, dry weather will have favoured the ripening of the shoots on Pelargoniums. These may now be taken off and inserted singly in pots, or placed thickly in boxes or around the sides of 6-inch pots. If there is room for wintering them, the former method is most satisfactory. In taking the cuttings be careful not to disfigure the beds more than is necessary. The pots may be placed out in the open. The propagation of other kinds of bedding plants may follow. The hot, dry weather has been all in favour of the Pelargonium and Heliotrope, and the plants are making a gorgeous display. King of Denmark, a pink Pelargonium of splendid constitution, is worthy of extensive cultivation.

The Mixed Borders.—The work of staking and tying the plants must be constantly attended to. Remove dead flowers and foliage systematically, and during dry weather the borders will need copious supplies of water.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Hardy Fruit.

Strawberries.—As soon as the fruit has been all gathered from the beds that will be retained for fruiting another season, the runners should all be cleared away, cutting close to the parent plants and removing any damaged or useless leaves. The hoe can then be used between the lines to remove weeds and render all tidy. I do not recommend digging between the rows, as is sometimes done, but give a heavy mulching of farmyard manure before the approach of winter frosts. Old plants that are exhausted may be cleared off the ground at once, so that it can be used for another crop. Early runners should now be well rooted, and, where practicable, can be planted at once in their permanent fruiting quarters, giving from 2½ feet to 3 feet between the lines and 18 inches between the plants. These should be kept isolated when the autumn trimming up is performed, in preference to allowing the runners to meet and form a continuous bed. The ground should be well prepared previous to planting by being deeply dug or trenched and adding a heavy dressing of manure to encourage deep rooting, which is the only means of securing a good crop in dry seasons. If it is found inconvenient to plant during the present month, the rooted runners may be severed from the plants and placed in nursery beds till the spring,. Where large quantities are used for forcing, some of the later batches that have not been subjected to much artificial heat may be planted out.

Raspberries that have finished fruiting should have all the old canes removed at once, as well as any young growths that are not required, so as to throw all the strength possible into the fruiting canes for next season. Support these against wind and admit all the light and air available. On light soils, if the weather is dry, a good soaking of liquid manure will be found very helpful. Cultivation of the soil should be limited to surface hoeings sufficient to keep down weeds.

The Bramble, Loganberry and Wineberry are all vigorous growers, and usually produce a large number of growths. Only those in the best positions should be retained, fastening them up to the supports in order that the wood for fruiting next season may get well matured. All the old fruiting wood should be cut out as soon as the crops are gathered.

Kitchen Garden.

During the ensuing week preparations should be made for sowing seeds of early and late Cabbages, Savoys, Brussels Sprouts and Cauliflower. The latter ought to be pricked out as soon as large enough to handle on some sheltered corner or in cold frames. For spring planting outdoors I find the well-known variety Early London as good as any of the selected strains.

Cabbages and Brussels Sprouts may be left to winter where they are sown, but better material for planting may be had if they are turned over and planted in nursery lines as soon as large enough. Before sowing, the ground should be made firm and smooth, and should not be too rich.

Onions of the Tripoli varieties may also be sown about the same date for transplanting in spring on richly-manured ground.

Potatoes.—Early varieties should be lifted and stored for seed as soon as growth has stopped and the haulm is turning yellow, selecting medium-sized and well-shaped tubers from plants possessing the best qualities necessary in a good Potato.

Thomas Wilson.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

MY LITTLE GARDEN IN KENSINGTON.

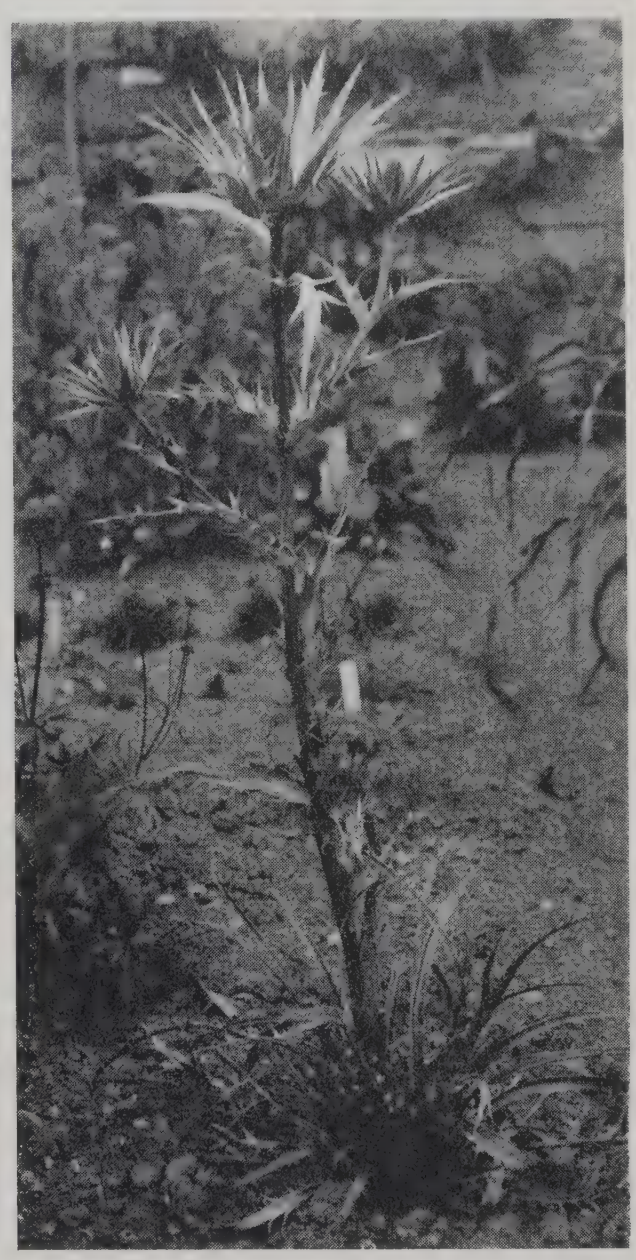
WHEN I say to my friends, "Come and see my garden," I watch now for an expression of polite contempt which invariably comes over their faces, and inevitably means a picture in their minds of smutty Ivy, cats and a Geranium or two that clearly wish they had died when cuttings in some warm greenhouse. I watch now equally for a very different expression when the promised visit is paid and the unexpressed contempt is changed for an exclamation of surprise, "Why, you have a *real* garden!" The spontaneity of it is a reward for many an hour's hard work and many a trial and disappointment. And yet this article is not mainly written for the hard workers, but for those who have not so very much time to spend on their London garden, whose friends and interests are many, yet who are not willing to have a dreary, flowerless waste, the counterpart of the mind-picture that I so often watch for.

That any garden can get on without some care and much interest it would be ridiculous to assert. A garden left entirely to the gardener reminds one of those little children whose unlucky parents live in foreign places and who must perforce be placed in strangers' care. That care may be unceasing and wise, but never again can that little child belong to its own parents. Its small characteristics and inclinations are trained and moulded by others, and only Death can eradicate them. So it is with a garden. Your Clematis, Wistarias and Vines are trained in ways that are not to your taste; a tree is planted in the wrong place, which sets the whole scheme wrong; and nothing but severe surgical operations can remedy the evil and other evils too numerous to mention.

Thought, then, and personal care and taste *are* a necessity to a perfect garden; but if frequent absences from town and many social and domestic distractions are unavoidable (as in my own case), it is still possible to have a beautiful garden in London. Plant those things that will grow and flourish by themselves, that will greet you on your return with cheerful, smiling faces, in spite of the sole care of a jobbing gardener who comes for half a day a week. To ensure this you must know what to plant, and the list is long enough to satisfy any garden-lover. For the spring plant Forsythias, Flowering Currants and bulbs of every sort. Tulips do particularly well in London, and I have had some this year that have equalled those I saw growing in a particularly beautiful garden on the banks of Lake Como. It is not too much to say that any bulb will do as well in London as anywhere else, one absolute necessity being to surround the bulb entirely with 2 inches or 3 inches of sand. This prevents damping off, the most common cause of failure in London, particularly with rock plants.

For the walls, plant the Winter-flowering Jasmine, which grows and flourishes without any care except tying up; and Pyracantha Lelandii for its glorious red berries. It is colour I strive for in my little garden, masses and riots of it, for which reason it is better to plant quantities of ordinary things that will prosper than rarities that are one continuous grumble against the fate that brought them there.

The glory of my garden in June are the Delphiniums, whether they be black-eyed, white-eyed, mauve, blue, or any of the delicious subtle combinations of both that the modern Delphinium has to perfection; all will grow and flourish, increase in size and beauty, and come up faithfully year after year, showing glorious blue vistas which last for a month. The other June glory that surprises and delights all who see them glowing in the heat of Kensington as happily as if they were miles away from any smoke or dirt in some cottage garden are the Orange Lilies (Lilium croceum). Of these I have a huge clump that increases and improves of itself, each stem having five or six heads, making a picture difficult to equal in anyone's garden. Planted near and around these I have Erigeron (Stenactis) speciosus. the masses of soft mauve (for they flower in perfection here) toning in perfectly with the fiery orange of the Lilies. When the latter are over, the



A RARE SEA HOLLY (ERYNGIUM PROTEÆFLORUM) IN THE GLASNEVIN BOTANIC GARDENS.

Erigeron goes on flowering for many a long day, sometimes lasting well on into August, and, if cut down, giving a second, though poorer, crop of flowers.

The London gardener soon learns to his deep satisfaction that nearly all the Dianthus tribe are really happy in our smoky atmosphere, and show it by blooming lustily all the summer. The Clove Carnation (most lovely and fragrant of flowers) blooms well. I have various Pinks, cuttings of which have been mostly stolen from friends' gardens, a form of theft I am somewhat addicted to, as it harms their plants not at all and makes me the richer by an additional beauty, for they strike readily in the open border. I have pink and crimson Carnations, too, the names of which I know not, as they were bought with an odd lot. The old-fashioned Sweet William (Dianthus barbatus), too, will bloom very sweetly, but will not attain the immense proportions of its modern country cousin. Lupines are a great success, though they have to be renewed about every third year. They begin blooming just after the Doronicums, which are earlier than anything else, and as I write (towards the end of July) there are spikes still pushing up. I have been also quite successful with Sweet Peas. They are yielding me many a lovely bowl of flowers. Good seed, sown early and thinly, deep trenching, and plenty of water are as essential in London as in the country.

One of the sweetest plants in my garden, which seems to flower in any kind of soil and in any position, is the Tradescantia, quaintly nicknamed "Moses in the Bulrushes." It begins to bloom early and goes on the whole summer, shutting up its lovely Iris-like purple blue or lavender flowers at night like the good little Moses that it is. Plant in October, November, March or April, and you will never regret it. Growing only some 2 feet high, it must be put near the front of the border; it does well under trees.

I have left to the last the most lovely of all my successes, which is the Hollyhock. No disease attacks them here, and they seed themselves so freely that where I had three plants I have now quite a dozen. one being fully 7 feet high. One more hint as a result of my three years' gardening in Kensington: Do not, if you can help it, plant in the autumn. My own experience is that it is better to transplant in midsummer than in the autumn, and perhaps the very best time is the third week in August. This lessens the chance of damping off. The spring will do, but late spring is recommended.

Of the Primroses, Irises, Columbines, Pyrethrums, Pansies, Lilies of the Valley, Primulas and many other beauties that grow well here in May; of the Monkshoods, Snapdragons, Cornflowers, Honesty, Campanulas and Clematis that come in June; of the many kinds of Michaelmas Daisies, border Chrysanthemums and Dahlias that reward my care and affection in the autumn, there is no room to speak here; but I feel sure, with such a lovely and accommodating list to choose from, no Londoner need say, "Nothing will grow in my garden." There must be some things that will grow for him at each season of the year.

I have been careful to write only of flowers I have tried with success. Of the many I have tried with only failure, and of the many I still mean to try, I will be silent. Finally, may I be allowed to record my tribute of thanks to THE GARDEN for the constant and practical help it has given me. Never a week passes but I glean some suggestion or some information from its fragrant pages, for fragrant they are with visions of glowing herbaceous borders, of flower-bordered lakes and ponds and scented wildernesses that start up as you read and spur you on to make the very most of your own little patch of garden, in London though it be.

HELEN SHARPE.

23, *Pembroke Road, Kensington.*

THE TRUMPET FLOWER.

FEW hardy climbers have rendered so good an account of themselves this year as Tecoma radicans. This valuable plant, native of North America, produces its coral-scarlet flowers in terminal corymbs, is aided as a climber by means of aerial roots, hence its name "radicans," or rooting. It is sometimes grown as a greenhouse climber, and when planted out of doors should be placed against a wall with a south aspect.

THE FLOWER GARDEN.

A RARE SEA HOLLY.

(ERYNGIUM PROTEÆFLORUM.)

THIS uncommon Sea Holly is now in flower at Glasnevin. As a general rule, the Eryngiums of the Old World are distinct from the New World species. In many counties the former are not always hardy and are grown for their foliage, and the other set for their flowers. E. proteæflorum, which is a native of Mexico, has both foliage and flowers, which are attractive, and the plant is not coarse-growing. When out of flower it resembles a spiny Bromeliad. The narrow, light green leaves are 18 inches to 24 inches long, by about half an inch to 1 inch broad. These are armed with double spines about three-quarters of an inch long, and where the spines join the foliage are white spots. The flower-stems reach 2½ feet to 3 feet high, bearing several flower-heads. The real flowers form a light blue cone 3 inches high, and are enveloped by broad, spiny and silvery bracts having a spread of 6 inches to 8 inches across, making quite an attractive inflorescence. Mr. C. Purpus was the first to collect this Eryngium in the alpine region of Mexico, near the tree limit, at about 1,200 feet elevation. Last winter the plant which flowered at Glasnevin was planted in an ordinary border, but was given some protection by means of branches; it remains to be seen whether it will be really hardy. C. F. BALL.

OSTROWSKIA MAGNIFICA.

THE Ostrowskia is, without doubt, when seen in vigorous health, the most splendid of all our hardy perennials, and well deserves its specific title of magnifica. A native of the eastern mountains of Bokhara, it may be considered perfectly hardy, and it generally appears to succeed better in the colder districts of this country than in the warmer. In Yorkshire and Northamptonshire it often exceeds 7 feet in height, but in the South-West it rarely attains a height of more than from 3 feet to 5 feet, and in some gardens it makes but poor growth, sometimes throwing up a flowerless stem 1 foot to 18 inches in height for several seasons in succession. Even when apparently permanently established it occasionally dies unaccountably. If everyone could grow the Ostrowskia 7 feet and more in height, it would be immensely popular; but, unfortunately, few are able to do this, and it must be considered a somewhat capricious plant. The roots are exceedingly brittle, and it is almost impossible, even with the greatest care, to lift a plant from the open ground without breaking them, a circumstance which renders its transplantation without damage a most difficult proceeding. A heavy soil is evidently to its liking, and at Lilford Hall it succeeds splendidly in such a staple. It also appreciates lime, and old mortar rubble should be largely added to the soil. Opinions as to its winter treatment vary considerably. A writer in THE GARDEN a few years ago advocated that the plants should be protected from the wet immediately the flowering season is past, but exposed to the full rainfall from November onward; but the late Sir Michael Foster wrote: "After the Ostrowskia has died down, during the late autumn and winter it needs to be kept fairly dry; but though it likes to be in dry quarters during its winter's sleep, it needs, when it is pushing up in spring and especially when it is growing fast in summer, conditions of quite a different kind. With a stinted water supply then the plant loses more than half its beauty." Some years ago the late Mr. Archer-Hind had a fine plant of the white variety about 5 feet in height, which was protected by a handlight every winter. One year this protection was forgotten, with the result that the plant died. From this it would appear that Sir Michael Foster agrees with Mr. Archer-Hind in holding that the Ostrowskia should be kept dry during the entire winter, and not with the writer who advocated its exposure to all the rain that falls from November, and who stated that it "enjoys abundance of water during the winter." In making a bed for the Ostrowskia, this should be fully 3 feet deep, as the Carrot-like roots descend to a great distance. Perhaps the best method of establishing the Ostrowskia is to raise seedlings and to plant these out when they are about 6 inches high in the soil recommended. A group of vigorous plants in full flower has a magnificent appearance, the great blossoms being fully 6 inches in diameter and satin-like in texture. The colours are lilac blue and pure white, the latter being the more beautiful variety. The plant was introduced into this country in 1887.

WYNDHAM FITZHERBERT.

DICTAMNUS ALBUS.

THE Fraxinella or Burning Bush is a very old and popular inhabitant of our gardens, having been grown in this country for over 400 years. As a subject for the herbaceous border it is a beautiful and interesting plant, interesting on account of the volatile inflammable oil which is exuded from the flower-heads and seed-capsules during the hot weather. If a light be applied in the dusk of a summer evening, the whole plant will be more or less enveloped in a bluish flame, which is, however, only of very short duration. The white-flowered form, which is the type of the species, makes a bushy plant from 2 feet to 3 feet high, with large flowers in terminal spikes well above the foliage during the month of June.

In the colour of its flowers the Fraxinella is very variable, one of the finest and largest forms being D. a. purpureus or caucasicus as it is sometimes called. It grows in good soil about 4 feet high, with larger foliage and flowers varying in colour from light to deep purple. These plants flourish in any good garden soil or sunny position, but resent moving. After being transplanted they take a long time before commencing to grow freely, so that to have good, well-flowered plants it is necessary to leave them severely alone when established.

When it is necessary to increase the stock, the plants may be lifted carefully in early spring and the rootstock parted, leaving several eyes to each piece. These should be replanted firmly, if possible, in the position they are intended to occupy permanently. Seeds are produced freely, and offer another medium of increase. They germinate readily, and may either be grown on in pots till large enough to plant out or in nursery beds. W. I.

HOUSTONIA SERPYLLIFOLIA.

THE Thyme-leaved Houstonia is distinct in habit and foliage from the better-known H. cærulea. The slender stems creep along the ground and are furnished with small, roundish leaves, not inaptly compared to those of the common wild Thyme, though they are rounder, like those of Nertera depressa, grown for the beauty of its scarlet berries. The flowers of the Thyme-leaved Houstonia are bright blue, not much smaller than those of H. cærulea, and carried well above the foliage on stems 6 inches high when grown in a cold frame, for which it is well adapted, as in the case of its congener. In the open air the flower-stems would be shorter. The rock garden is the best place for planting it out, selecting a position well exposed to light and even the morning sun, but shaded from the afternoon sun, which has a drying effect after the air gets heated during the long summer day. Plenty of sand and lead-mould should be mixed with the soil in which it is planted. Needless to say, care must be taken to prevent strong-growing neighbours from covering up its foliage, otherwise the plant will be quickly destroyed. J. F.



AN INTERESTING HARDY PLANT: DICTAMNUS ALBUS.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

AUTUMN ONIONS.—The crop of Onions from autumn or, to be more correct, late summer sown seeds is one of great importance, because it ensures splendid bulbs before we can grow them from seeds sown in the spring, and because, generally speaking, the losses from the depredations of the maggot are not nearly as severe. For some unknown reason it has come to be accepted as a fact that the Tripoli and Rocca varieties are the most suitable for standing the winter. As a matter of fact, varieties such as Ailsa Craig are of equally hardy constitution, and they have the merit of giving superior crops to the Tripoli group both in bulk and shape, while their keeping properties are better than the Rocca varieties. All things considered, they are preferable to the old favourites. The seeds must be sown some time between the present and the end of the month in thoroughly-prepared ground that has been made firm. The sceding should not be too thin, as it is certain that there will be a desire to draw some plants as "spring" Onions

STOPPING TOMATOES.—When Tomatoes are grown out of doors, inexperienced amateurs are somewhat apt to make the error of allowing them to continue progress too long. If a plant in the open quarters of the garden sets four excellent trusses, the leading point ought to be removed, because it cannot be expected, in our climate, that it will perfect more fruits than this. If they are permitted to form, not only will the latest fail to develop properly, but they will decidedly prejudice the progress of those below. Therefore, stop the plants at discretion, and see to it that the soil about the roots never becomes as dry as dust, or the skins will harden, and upon the soil being re-moistened cracking is almost certain to accrue. Plants on favoured walls may, of course, be encouraged to go taller.

CELERY.—The demands made by this crop upon the time of the grower are unceasing, and failure to attend to details of management as they arise will have to be paid for in some form or another. It is well known that the plants are moisture-lovers, and the soil must not, therefore, be allowed to get as dry as dust. Suckering, too, will demand careful attention, since the presence of these growths ruins what would otherwise be an excellent plant. Before earthing is put in hand the plants ought to be closely examined for suckers. In earthing, exercise the utmost care that no particles of soil shall find their way into the heart of the plant, or there will occur brown, unsightly specks which no washing prior to use will remove. When the leaves are damp either after rain or artificial watering, dust them with a mixture of old soot and wood-ashes in a mixture of about equal proportions, or either alone may be used if the other is not at hand, as a deterrent of the leaf-mining fly.

SCARLET RUNNERS.—These are now fast coming to their full value, and it is imperative that no efforts shall be spared which will go towards encouraging the plants to maintain the production of heavy crops. Close picking of the pods is, of course, very valuable in the direction indicated; but it is also necessary to see that the soil is kept pleasantly moist and that the supply of food does not run short. It is particularly advantageous, too, in hot, dry weather to throw a few buckets of water into the heads of the plants during the evening. The soil above the roots ought to be carefully loosened, thoroughly soaked with pure water and then with liquid manure, and left to dry. As soon as this stage is reached, lightly prick over again and spread on a mulching of good manure.

SPINACH.—This invaluable crop is seldom well grown by amateurs and cottagers, who labour under the erroneous impression that the plants will grow in any soil or position. As a matter of fact, a deeply-cultivated quarter in good heart and fully exposed to the light is essential to success at all seasons, and more especially so when winter pickings are required. The seeds should be sown in drills 12 inches asunder, and, if an additional 3 inches can be conveniently spared, by all means give them. Thin the seedlings gradually until they stand at least 9 inches apart. H. J. W.



OSTROWSKIA MAGNIFICA IN A SOUTH DEVON GARDEN. (*See page* 381.)

TOMATOES FOR LATE AUTUMN CROPS.

IF seeds of Best of All Tomato or some other suitable variety are sown at once and the resultant plants grown on under glass and well treated, fine crops may be obtained at a time when there are only green fruits or outdoor ones gathered and stored to ripen artificially. Sow the seeds in the small pots in which the seedlings are to be grown. Drop two seeds in each pot and cover lightly with soil; keep the pots in a frame and, when the seedlings appear, pull out one—the weakest. Use pots 3½ inches across and fill them with a compost of fibrous loam and a very small quantity of sweet leaf-soil. Before the small pots become too full of roots, shift the plants to larger pots, those measuring 6½ inches in diameter. Use a similar compost and pot firmly. At this stage side shoots will begin to grow, and they must be pinched off while quite small. The first flowers will now form, so plenty of air must be admitted to the frame. Place the plants in their fruiting pots about the end of September, and when plenty of roots have formed, feed with superphosphate at the rate of a teaspoonful to every 10-inch pot once a fortnight. The plants should have the warmest position in the house and be fully exposed to sunshine if possible. B.

FRUIT GARDEN.

RASPBERRIES AND THE DRY WEATHER.

THE principal variety here, Superlative, has borne a very heavy crop of fruit, but owing to the drought the season was cut short. As soon as the crop is all gathered and the old fruiting canes are of no further use, they are immediately cut away and replaced with those intended to fruit the following season. Unless we get heavy falls of rain to moisten the soil and roots, a few applications of manure-water will be applied, and subsequently a good mulching of manure to encourage vigorous canes. As our soil is rather light and shallow, this attention is very necessary. Although a well-prepared bed of Raspberries will with reasonable attention continue to fruit for several years, new plantations made at intervals will prove the best and produce the largest fruits. Any of the young surplus growths will quickly develop into nice fruiting canes if removed with a few roots attached and planted on a north border or where they are intended to remain. I have formed new plantations early in the season by planting young green growths, which have the following year produced an excellent

crop, thus saving, as it were, a season over canes matured and planted at the usual time, which are best cut down to the ground-level the first year after planting.

STRAWBERRY LAXTON'S LATEST.

THIS variety with me has proved one of the best for supplying late fruits. The individual berries grow to a very large size, are solid in texture, sweetly flavoured, of fine bright crimson colour and are produced in abundance. If in other parts it succeeds as well as it has done with me, I have every reason to think that it will become (as a late kind) equally as popular as Royal Sovereign is as an early variety. Reward has given us a good crop of its huge, wedge-shaped fruits, the berries being firm, well coloured and of very good flavour. Other varieties have done well this year; but owing to the long spell of drought, the plants have greatly suffered, and if not given immediate attention, I fear next year's crop will be poor. All runners and dead leaves should at once be removed and the soil between the rows cleared of any rubbish. Dust the foliage remaining on the plants with sulphur; then slightly loosen the baked surface with a fork, place a good mulch of manure all over the roots, and water if needed, the object being to build up good fruitful crowns by the end of the season. Although on heavy land mulching may not be so much needed, it is most essential on light, porous soils if a good crop is to be expected another year. H. MARKHAM.

Wrotham Park Gardens, Barnet.

ROSE GARDEN.

INCREASING THE HEIGHT OF WEEPING ROSES.

THERE are many individuals who would prefer their weeping Roses to be taller, but who refrain from ordering the extra tall trees offered by reason of the inflated prices asked. Now with the wichuraiana Roses, which droop naturally, there is nothing to prevent one adding 1 foot or even 2 feet to the height by training the growths up to the desired height and then allowing the shoots to droop. For instance, if one has purchased a weeper with a 5-feet stem, this can be converted into a 6-feet or 7-feet stem by simply tying the growths upright to good stout stakes. The young shoots on this added "stem" are suppressed and our object is soon gained.

At one time these weeping Roses were hard to procure; now they are very plentiful, so that one may obtain good one year old weepers with 6-feet or 7-feet stems for 7s. 6d. to 10s. 6d. each. I think "dual" weepers will become rather fashionable, and I am sure they would look well. I have budded this last summer some very tall Briars with even four varieties on each, but they are all of the Dorothy Perkins tribe; for instance, I budded Dorothy Perkins (pink), LadyGodiva (blush), Excelsa (crimson) and White Dorothy (white). I am hoping these will give a pretty effect. Dual standards used to be in large demand, but few think of budding them now. As we are having various colours in distinct tribes, these dual standards should be brought into favour again. The pink Caroline Testout and the white Admiral Dewey would make a pretty combination. The white Frau Karl Druschki and the crimson Commander Jules Gravereaux should make another, and there are other combinations of Roses of like habit in growth and flowering, but of distinct colours, that are sure to make happy blendings.

A BRILLIANT MONTHLY ROSE FOR BEDDING.

THERE have evidently been exceptional efforts made by hybridisers in the production of brilliant Roses of all classes, and it is gratifying to know that they have been to a large extent very successful. Those who employ the Rose as a bedding plant have long felt the need of a good scarlet bedder, one that will grow compactly yet freely, but without the embarrassing vigour of Grüss an Teplitz or Hugh Dickson. One of the most beautiful and brilliant of the recent novelties is Leuchtfeuer. In colour it is a brilliant blood red, as vivid as a Duchess of Bedford or a Duke of Edinburgh, but with the China or Monthly characteristics in growth and foliage. It is not a small bloom, such as one might suppose, but is quite 4 inches across, fairly double, of rather irregular form and produced in upright growths in great quantity. That it will take an important place among bedding Roses seems to me quite assured. At first sight I thought it would resemble too closely another beautiful Hybrid China named Charlotte Klemm, but this latter has larger petals, though fewer, and is a cinnabar red, quite distinct from Leuchtfeuer. They are both fragrant sorts. Leuchtfeuer was raised from Grüss an Teplitz crossed with Cramoisie Supérieure, which has given it the dwarfer habit of growth; and I quite expect, if Leuchtfeuer is still further crossed with good Hybrid Teas, we shall soon have a perfectly-shaped bedder. President Taft is yet another brilliant bedder, a seedling of Grüss an Teplitz, only quite dwarf in growth; and then there is Ecarlate, a first-rate brilliant sort, so that we have four really excellent brilliant bedding kinds that, planted together in circles of one sort, would give a splendid effect in a large garden, still further enhanced by interspersing at intervals Grüss an Teplitz and Sarah Bernhardt. P.

PEGGING DOWN ROSES.

THE effect of pegging down Roses is in some measure comparable to that of bending down the rods of the Grape Vine early in the year in order that the Vine growths may break evenly throughout the entire length of the rods. The Vine-grower knows full well the value of this practice, the effect of which is to check an undue rush of sap to those growths which are furthest from the roots, thus ensuring an even distribution of growths and bunches of fruit. In a like manner, by pegging down strong Rose shoots one may be sure of getting a number of side growths, followed by the production of flowers. In addition to Roses of Briar-like habit, there are many of less vigorous growth that are eminently suited for pegging down when grown in beds, such varieties, for instance, as Frau Karl Druschki, Grüss an Teplitz, Mme. Jules Gravereaux, Zepherin Drouhin and Clio, all favourite sorts, which send out fairly strong shoots, and, needless to add, there are many others of a similar nature. The method of pegging down is quite simple. A few of the longest and best shoots, say, three or four, are retained, and the others cut clean out to the base at the time of pruning. The selected growths are then either pegged right down to the ground or tied to low stakes about 1 foot from the soil surface. Beds of Roses look much neater and flower better and more evenly when so grown. An illustration of a bed of Rose Clio is shown on this page, the shoots having been pegged down in the manner described.



A BED OF ROSE CLIO, SHOWING THE RESULT OF PEGGING DOWN THE SHOOTS.

HYBRID TEA ROSE MARGARET.

FEW pink Roses can surpass this variety for beauty of form. As a show flower it is perfect, high-centred, compact and full, like a very double Killarney. I feel sure this fine Rose will soon take a leading place among show varieties, and shall be surprised if it does not make great advance this season, which suits it admirably. As a pot plant Margaret is very fine; the flowers under cool treatment assume a lovely soft pink tint with a suspicion of salmon shading. P.

TREES AND SHRUBS.

A HARDY HEATH.

(ERICA ALPINA.)

BOTANISTS consider this Heath to be a variety of the Tree Heath (Erica arborea), but from the horticulturist's standpoint the plant is very distinct from that species. It is a native of the mountains of Cuenca in Spain, growing at an elevation of 4,000 feet to 5,000 feet. One of the most important characteristics is its hardiness. While E. arborea, E. australis, E. lusitanica (codonodes) and E. Veitchii have suffered considerably during recent years, E. alpina has been grown at Kew for ten or twelve years without the slightest damage from frosts, and the tallest plants are now about 6 feet in height. Compared with E. arborea, our plant has stiffer, more upright growths, the leaves are a much brighter, richer green, and the flowering season is later, being spring in the case of E. alpina. One of the principal claims of this Heath for consideration is as a medium-sized evergreen shrub for lawn specimens. Bright and attractive throughout the year, it is doubly so in the dull, dark days of winter by reason of the bright vivid green foliage. The flowers are white. A. O.

ESCALLONIA LANGLEYENSIS.

UNFORTUNATELY, the majority of the Escallonias are too tender for open border culture, except in the warmer parts of the country. There are, however, one or two which are much hardier than the remainder, and they may be grown in all except the very coldest parts of the British Isles. The hardiest species is the white-flowered E. philippiana, a deciduous bush which is rather widely cultivated. By using it as a parent and crossing it with some of the more tender species a set of hybrids has been obtained which have much of the hardiness of E. philippiana. Of the number E. langleyensis is one of the most beautiful. It was raised by Messrs. Veitch in their Langley nursery by crossing E. macrantha, an evergreen species, with the species already referred to. The hybrid is of elegant habit, with long, slender branches clothed with small dark green leaves which are sub-evergreen. The rosy red flowers terminate the short axillary shoots of the present season's growth, and are borne with great freedom. Planted against a low fence or trellis the plant is wonderfully effective, for its slender branches are very graceful. It may, however, be planted as a group in the open. In such a position it grows 5 feet or 6 feet high, and forms a distinct feature in June when covered with its pretty flowers. A few flowers continue to appear for several months.

CARAGANA ARBORESCENS.

AMONG strong-growing shrubs this Siberian species is prominent in May and early June by reason of its profusion of yellow, Pea-shaped flowers, which appear from short spur-like growths among the delicate pinnate leaves. It is a useful shrub for the back of a shrubbery, and is also valuable for the wild garden, while it can be used for waste ground as a preparatory plant for choicer species. There are, however, several distinct forms of the shrub which are worth consideration when a selection of garden shrubs is being made. One of the most distinct is named Redowskii. It differs from the type by reason of its wild, far-reaching branches, which rise to a height of 12 feet or 15 feet and cover a wide radius. To be seen at its best, a position on a lawn should be provided where there is plenty of space, for it is only when the branches can be allowed to grow unpruned that the full beauty of the shrub is developed. In the same way it is unsuitable for shrubberies, for when crowded by other shrubs its peculiarity of outline is not noticed. Another distinct variety is found in nana. This is of stunted appearance and grows slowly. Pendula, as the name implies, is distinguished by its weeping branches. As a rule, it is grafted on to stocks of the type, and forms an umbrella-like specimen. All the forms are as easily grown as the type. D.



A BEAUTIFUL HARDY HEATH: ERICA ALPINA.

THE TOWN GARDEN.

PERPETUAL-FLOWERING CARNATIONS.—Plants intended for flowering during the coming winter, and which received their final shift into 7-inch pots a few weeks back, should now be making excellent progress. The chief requirements now will consist in keeping the growths tied up to prevent breakage and loss, while care in watering is not less important. Equally so is keeping the plants free of insect pests, these not infrequently secreting themselves in the heart leaves of the plants and doing considerable mischief before their presence is really detected. This latter state of things can always be reduced to a minimum by fumigation before potting, and if at the time the plants be placed in a frame a much smaller dose than is usually employed of such a fumigant as Nicoticide will suffice. Should the pest now exist, syringing with a weak solution of Tobacco water will be found helpful, using a fine spray syringe for the purpose.

WATERING THE PLANTS.—In gardening affairs much valuable information may be imparted verbally and in other ways, the lecturer finding diagrams and lantern slides of much service. So far, however, no lecturer has arisen who has been able to tell the amateur by these means when a plant requires water or how much of it. A large number, indeed, find it difficult to define in words, and these are content to say a plant should be watered only "when dry," or when the "pot rings at a rap," and so forth. But if a pot happens to be cracked it will never "ring," and the beginner may rap in vain. Dryness, however, may be usually detected by the grey condition of the pot when the latter is in sight, and to the intelligent practitioner will prove an infallible guide. The distress of the plant due to lack of moisture at the roots is quickly evidenced by flagging in the case of so free-growing a subject as the Chrysanthemum; but the Carnation, unless at starvation point, gives no such clear indication of its wants. Hence the beginner must proceed by observing how his plants behave under varying conditions and circumstances.

SOMETHING TO AVOID.—I have found that a few negatives are eagerly snapped up by the student in gardening, and what to avoid, as well as what to do, forge together a chain of double-strength links. The "what to avoid" in all pot plant cultivation is not to allow the dryness of the soil to reach a contracting point, a point when it recedes from the sides of the pot. If it does this, all water subsequently given will pass between soil and pot without benefiting the plant. In such an extreme case, the only way to recover the normal condition of the soil will be to soak the plant, pot and all, for a few minutes in a tank or tub of water. Watering by little drops or driblets with much frequency is wrong in theory and bad in practice, for a plant, like an individual, wants a meal or does nor want it, and neither requires feeding with a spoon continuously.

STOPPING THE PLANTS.—Not a few amateurs fail in gardening, as some minor lights in the athletic world do at the last lap, and "stopping the plants" is this virtually. Such varieties as Enchantress, Winsor, Mrs. Lawson, May Day and Mrs. Burnett, which respond somewhat quickly after the operation, may be stopped at the middle of the month, while White Perfection and the majority of the crimsons should not be so treated unless very late flowers are the object in view. In short, I consider the end of July sufficiently late for White Perfection in a general way, because of the length of time between breaking and flowering. S. N. N.

GARDENING FOR BEGINNERS.

TRANSPLANTING SEEDLING WALLFLOWERS.

THERE are few subjects of our hardy flower gardens that are more popular than the fragrant Wallflower. It is a plant that has been grown for many years in this country, and has quite a long and interesting history. The Wallflower has so long been familiar to us in its association with that which appeals to those who have a love for historic and other old ruins, where this charming plant has become quite naturalised. All too frequently this subject is treated with but scant consideration; consequently, the results, though good, are not nearly so satisfactory as they might be.

The Wallflower was introduced from Spain, and one of its common names is Gilliflower. If we may trust history respecting this plant, it was first introduced into this country "under the name of Wall Stock-Gillofer, which afterwards became Wall Gilliflower and finally Wallflower." Although it is a hardy perennial, it is only of biennial duration on heavy soils. The best results are seldom obtained, because growers are disposed to make the sowing of the seeds unduly late. Wallflowers should be sown when the plants are at their best in the spring or early summer. When twelve months are allowed between the seed-sowing and their period of flowering, excellent results invariably follow. Therefore, April and May may be considered ideal for commencing operations. Although these months are laid down as the period when the seeds should be sown, readers must not imagine that pleasing results cannot be obtained from a sowing made at a later period. The writer has obtained very good results from a sowing made in June, and even in July; but the ultimate results were not nearly so good as those obtained from an earlier sowing. A matter of more than ordinary importance is the question of the strain of seed. What is more disappointing, after waiting almost a year for the plants to come into flower, than to find the blossoms poor in quality and the habit of the plants undesirable? Seeds should be procured from a reliable and satisfactory source, and, given proper culture, the results cannot fail to give pleasure when the plants come into flower. When the seeds are sown in April and May, they may be sown outdoors with the sure prospect of success. Some growers prefer to make their sowing in a cold frame; but this seems a precaution that is quite unnecessary. When sown in frames or boxes, there is always a greater amount of attention entailed; for this reason I prefer to make up a suitable bed of light sandy soil outdoors, and so long as this is kept fairly moist during the period of germination, the seeds germinate quite satisfactorily. In gardens where these plants are raised in large numbers, the Wallflowers are not coddled in the least, and the success that follows this hardy treatment of the plants seems to suit them very well. When sowing the seeds, I prefer to make the sowings in rows, as by so doing the raiser is enabled to keep the seed-bed free from weeds, which is not so easily accomplished when the seeds are sown broadcast.



1.—SEEDLING WALLFLOWERS READY FOR TRANSPLANTING.

Fig. 1 depicts a section of a row of Wallflowers, in which, the reader will observe, the seedlings are developing in capital manner. In this instance the seeds were sown thinly, and this accounts for their sturdy character before transplanting. As most readers are probably well aware, the tendency with inexperienced growers is to sow the seeds too thickly, in which case the resulting seedlings are weak and attenuated, and their prospects somewhat blighted from the first. Do not allow the seedlings to remain in the seed-bed longer than is desirable. Many growers lift and transplant the seedlings as soon as they have developed the third leaf; in any case, do not leave the plants in the seedling-bed until they are to be transplanted in their flowering quarters. This is done in some gardens, to the serious detriment of the plants. Make up a bed of prepared soil, working into it a proportion of lime. Old mortar rubbish, broken up and mixed with the soil, is an excellent ingredient. Some growers make a practice of removing the tap-root before transplanting the seedlings. Transplant in the prepared bed of soil which has been made quite firm by the use of the back of a spade or by treading on planks, &c., in rows 4 inches to 6 inches apart, pressing the soil to the roots of each seedling, so that the plant does not "hang." Water in subsequently, and the result will be as represented in Fig. 2. In September or October plant in their permanent quarters.

D. B. CRANE.



2.—METHOD OF TRANSPLANTING.

ROSES IN POTS FOR FORCING.

To force and flower Roses in pots successfully, the wood must be well ripened and the plants should possess plenty of roots of a fibrous nature. Instead of repotting a Rose plant very late in the season it would be far wiser to top-dress it and not disturb the roots; then to feed judiciously when the new shoots are growing freely under glass. No time must now be lost in preparing the plants for forcing. They should be placed in a sunny position, each pot on a tile and about three-parts buried in ashes, soil, sand or half-rotted manure. Water as occason requires and keep the foliage clean by syringing, so that it will fade in due course in a natural manner. It would be well to give two syringings with a soft soap solution if the plants have been lately infested with red spider. Boil gently for twenty minutes 4oz. of soft soap and 2oz. of flowers of sulphur in one quart of water. Use the liquid as follows: Half a pint to a gallon of clear water, vigorously wetting every part of the plant about sunset. Rose trees so treated are rarely infested with mildew while growing if kept from draughts and properly watered.

SHAMROCK.

THE PARENTAGE OF ROSES.

(*Continued from page* 374.)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Senateur Mascurand	H.T.	P. Ducher	1909	Seedling × seedling
,, Vaisse	H.P.	Guillot p.	1859	Seedling General Jacqueminot
Shower of Gold	H.W.	G. Paul	1909	Jersey Beauty × Instituteur Sirdey
Silver Moon	H.W.	W. van Fleet	1908	R. wichuraiana × R. lævigata
,, Queen	H.P.	W. Paul	1887	Sport Queen of Queens
Simplicity	H.T.	H. Dickson	1909	Seedling Kaiserin Augusta Victoria
Sir Rowland Hill	H.P.	Mack	1888	Sport Charles Lefebvre
Sisi Ketten	P.P.	Ketten	1900	Mignonette × Safrano
Snowstorm	H.M.	G. Paul	1907	R. moschata × a climber
Sodenia	H.W.	Weigand	1910	Dorothy Perkins race
Soleil d'Angers	Pern.	Detriché	1909	Sport Soleil d'Or
,, d'Or	Pern.	P. Ducher	1900	Persian Yellow × Antoine Ducher
Solfaterre	N.	Boyan	1843	Seedling Lamarque
Sombreuil	Tea	Robert	1850	Seedling Gigantesque
Sophia King	Tea	Nabonnand	1904	G. Nabonnand × Reine Emma des Pays-Bas
Souv. d'Adolphe Thiers	H.T.	Mor. Robert	1877	Seedling Countess of Oxford
,, d'Aimée Terrel des Chiens	Ch.	V. Schwartz	1897	Seedling Laurette Messimy
,, d'André Raffi	H.P.	Vigneron	1899	General Jacqueminot race
,, d'Anne Marie	H.T.	Ketten	1902	Safrano × Caroline Testout
,, d'Emile Clerc	H.T.	Ketten	1903	Ma Tulipe × Mlle. de Kerjegu
,, ,, Zola	H.T.	Begault P.	1908	Seedling La France de '89
,, de Filippo Weillschott	Tea	Ketten	1904	Eugénie Boullet × Georges Schwartz
,, ,, Franz Deak	Tea	Perotti	1894	Sport Bougère
,, ,, Fred Vercellone	H.T.	Schwartz	1906	Antoine Rivoire × André Schwartz
,, ,, Gomot	H.P.	V. Schwartz	1890	Seedling Van Houtte
,, ,, Gustave Prat	H.T.	P. Ducher	1909	Seedling × seedling
,, ,, Hélène	H.T.	Guillot	1902	Seedling Caroline Testout
,, ,, Henri Smits	H.T.	Verschuren	1908	Lady M. Fitzwilliam × La France
,, ,, Jean Ketten	H.T.	Ketten	1900	Esmeralda × Adrienne Christophle
,, ,, la Comtesse Roquette-Buisson	H.T.	Ketten	1907	Laure Wattinne × William Askew
,, ,, ,, Malmaison	B.	Beluze	1843	Seedling Mme. Desprez
,, ,, ,, Princesse A. Swiatopolk - Czetwertinski	Tea	Ketten	1900	Safrano × Marquise de Vivens
,, ,, ,, Reine d'Angleterre	H.P.	Cochet fr.	1855	Seedling La Reine
,, ,, l'Exposition de Bordeaux	M.S.	Puyravaud	1905	Crimson Rambler × Simon de St. Jean
,, ,, Leon Roudillon	H.P.	Vigneron	1908	General Appert × Van Houtte
,, ,, Louis Perrier	H.T.	Pedriolle	1909	Betty × Paul Ledé
,, ,, Mme. A. Gaginere	Tea	A. Schwartz	1908	Berthe de Barny de Zahony × William Allen Richardson
,, ,, ,, Eugène Verdier	H.P.	Joubert	1894	Baroness Rothschild
,, ,, ,, ,, Verdier	H.T.	P. Ducher	1894	Lady M. Fitzwilliam × Mme. Ch. Guinoisseau
,, ,, ,, Hennion	H.T.	Gamon	1909	Camoens × Marie Baumann
,, ,, ,, Joseph Metral	Tea	Bernaix	1888	Mme. Berard × Eugène Fürst
,, ,, ,, Levet	Tea	Levet	1891	Mme. Caro × Mme. Eugène Verdier
,, ,, ,, L. Wever	Tea	Ketten	1901	Adam × Souv. de Victor Hugo
,, ,, ,, Sablayrolles	Tea	Bernaix	1890	Devoniensis × Souv. d'Elise Vardon
,, ,, Maman Corbœuf	H.P.	Benard	1900	Seedling Her Majesty
,, ,, Maria de Zozaya	H.T.	Soupert	1904	Souv. du Wootton × Mrs. W. J. Grant
,, ,, Marie Drivon	H.T.	V. Schwartz	1899	Kaiserin Augusta Victoria × Laurette Messimy
,, ,, Paul Neyron	Tea	Levet	1871	Devoniensis × Souv. de la Malmaison
,, ,, ,, Raudnitz	H.W.	Cochet C.	1909	R. wichuraiana × Crimson Rambler
,, ,, Philomen Cochet	H.Rug.	Cochet C.	1899	Seedling Blanc Double de Coubert
,, ,, Pierre Notting	Tea	Soupert	1902	Maréchal Niel × Maman Cochet
,, ,, Rambaux	Tea	Rambaux	1884	Seedling Goubault
,, ,, Sarah A. Prince	Tea	Prince	1889	Sport Souv. d'un Ami
,, ,, Spa	H.P.	Gantreau	1872	Seedling Mme. E. Verdier
,, ,, Thérèse Levet	Tea	Levet p.	1882	Seedling Adam
,, ,, Victor Hugo	H.P.	Pernet p.	1885	Seedling Ambrogio Maggi
,, ,, William Wood	H.P.	E. Verdier	1863	General Jacqueminot race
,, du Dr. Jamain	H.P.	Lacharme	1865	Seedling General Jacqueminot
,, ,, President Carnot	H.T.	P. Ducher	1894	Seedling Lady Mary Fitzwilliam
,, ,, ,, Daurel	H.T.	Chauvry	1906	Sport Caroline Testout
,, ,, Prince Ch. d'Arenberg	N.	Soupert	1896	Rêve d'Or × Duchesse d'Auerstadt
,, ,, Rosieriste Gonod	H.P.	Ducher f.	1889	Seedling Baroness Rothschild
,, ,, ,, L. Rose Vilin	H.T.	Vilin-Vilin	1907	Caroline Testout × Catherine Mermet
,, of Wootton	H.T.	Cook	1889	Bon Silene × Louis van Houtte
Spenser	H.P.	W. Paul	1892	Sport Merveille de Lyon
Stanilas Foucher	D.T.	Roffay	1906	Gloire de Dijon × Duchesse d'Auerstadt
Star of Queensland	H.T.	Williams	1909	Etoile de France × Earl of Dufferin
Stella	M.S.	Soupert	1906	Seedling Crimson Rambler
,, di Bologna	H.T.	Bonfiglioli	1909	L'Innocence × seedling
Striped Crimson	D.P.	—	—	Sport Rose du Roi
Sultan of Zanzibar	H.P.	G. Paul	1876	Mme. Victor Verdier race
Sunrise	Tea	Piper	1899	Sport Sunset
Sunset	Tea	Henderson	1883	Sport Perle des Jardins
Suzanne Marie Rodocanachi	H.P.	Lévêque	1883	Seedling Victor Verdier
Symmetry	H.P.	G. Paul	1909	Seedling Mrs. John Laing
Taft Rose	H.T.	Conard	1910	Kaiserin Augusta Victoria × Mme. Cusin
Tamogled	H.Rug.	Kauffmann	1894	R. rugosa rubra × Etoile de Lyon
Tartarus	H.P.	Geschwindt	1888	Erinnerung an Brod × Souv. du Dr. Jamain
Taunusblumchen	M.S.	Weigand	1905	Crimson Rambler × Blanche Rebatel
Tausendschön	M.S.	J. C. Schmidt	1906	Seedling Crimson Rambler
Tennyson	H.T.	W. Paul	1899	Seedling White Lady
Thalia	M.S.	Lambert	1895	R. multiflora × Ma Paquerette
,, Perpetual	M.S.	Lambert	1901	Thalia × Laurette Messimy
The Bride	Tea	May	1885	Sport Catherine Mermet
,, Dandy	H.T.	G. Paul	1905	Seedling Bardou Job
,, Farquhar	H.W.	Farquhar	1903	R. wichuraiana × Crimson Rambler × a H.P.
,, Garland	H.M.	Wells	—	R. moschata × R. multiflora
,, Lion	M.S.	G. Paul	1900	Crimson Rambler × Beauté Inconstante
,, Puritan	H.T.	Bennett	1886	Mabel Morrison × Devoniensis
,, Tea Rambler	M.S.	G. Paul	1903	Crimson Rambler × a Tea
Thelma	H.W.	Spooner	1909	Dorothy Perkins × Mme. Eugène Resal
Theodore Milch	H.W.	Weigand	1906	Chance seedling R. wichuraiana
Thérèse Coumer	H.P.	Liabaud	1867	Seedling Geant des Batailles
,, Lambert	Tea	Soupert	1888	Mme. Lambard × Socrates
Thermidor	M.S.	Corbœuf	1908	Crimson Rambler × Perle des Jardins
Thusnelda	H.Rug.	Müller	1889	R. rugosa alba × Gloire de Dijon
Tiergarten	M.S.	Lambert	1905	Euphrosyne × Safrano
Tip-top	P.P.	Lambert	1909	Trier × R. lutea bicolor

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page* 231 *of our issue for May* 13.)

THE GREENHOUSE.

POTTING TUBEROSES.

TUBEROSES are delightfully fragrant flowers for the warm greenhouse during the winter; they also do very well in unheated glass structures in the summer months. It is certainly not advisable to force the growth of these plants unless they are being grown early in the season, when some amount of forcing will be necessary. The following make a suitable compost: Fibrous loam, which has been cut about four months, two parts; well-decayed manure, one part; and sweet leaf-soil, one part. Sufficient coarse sand or washed and dried road grit must be added to render the whole porous. Five-inch and 6-inch pots will be serviceable, the former for the small and the latter for the larger tubers. Both the pots and crocks used must be quite clean, and it is important that the drainage be good, as a sodden condition of the soil is prejudicial to the general welfare of the plants.

When potting the tubers, the cultivator must closely examine each one and, with the aid of a knife, pick out the small, pointed side shoots. These shoots will not bear flowers, and weaken the growth of the central spike considerably. When once they commence to grow, it is a difficult matter to get rid of them, because they spring up through the soil in the pot. The crown of each tuber must be left just clear of the soil when the potting is done. Do not place the pots in heat, but in a cold frame, cover each tuber with an empty inverted flower-pot, and then bury the whole under sand or Cocoanut fibre. Ashes must not be used unless they have been exposed to the atmosphere outside for about six months.

The covering material keeps the soil in a regular state of moisture, and so promotes healthy and even growth; and the empty inverted pots prevent any malformation of growth which might occur if the sand, &c., were placed directly on the unprotected tubers. Of course, the pots must be removed from the covering material before the new growth reaches the bottom of the inverted pots. Gradual exposure to the full light and free ventilation are matters that must be duly attended to, and if the after-culture be generous, very fine spikes of flowers may be reasonably expected in due course. AVON.

THE EDITOR'S TABLE.

THE PHENOMENAL BERRY.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, send us fruits of the new Phenomenal Berry. This resembles very closely the better-known Loganberry, but the fruits are sweeter, and quite suitable for dessert when quite ripe. Messrs. Low write: "We have pleasure in sending a few fruits of the Phenomenal Berry for you to taste. They are ripened in the open. In our opinion this is a valuable fruit, because, although not so sweet as the Raspberry, it has a refreshing Raspberry flavour. The habit of the plant and the appearance of the fruits are almost identical with the Loganberry, otherwise the fruits are, of course, quite distinct from the latter, which are usually only considered fit for preserving or bottling purposes. The Phenomenal Berry is a great cropper, quite as heavy a bearer as the Loganberry, and although quite hardy, is well worthy of being cultivated under glass, when it attains a full Raspberry flavour. The individual fruits will grow from 1½ inches to 2 inches long!"

NEW PLANTS.

AWARDS OF MERIT.

MUSSÆNDA ERYTHROPHYLLA.—A remarkable plant of shrubby habit from tropical Africa. The flowers, which are yellow and have a crimson centre, are produced in terminal trichotomous corymbs or branches, the central one in most instances apparently producing when the flowers are past a brilliantly-coloured bract-like ovate calycine leaf of about 3 inches in length, in colour not unlike Euphorbia (Poinsettia) pulcherrima. These brilliantly-coloured appendages are freely produced, and render the plant exceedingly attractive. It is obviously a plant of easy culture that only requires to be better known to be in general favour. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Canna Terra Cotta.—One of the handsomest and most refined of these plants we have seen. The individual flowers are of large size and coloured a golden orange. A most attractive variety. From Messrs. James Veitch and Sons, Chelsea.

Itea ilicifolia.—A remarkably interesting species recently introduced from China, of whose absolute hardy nature there is as yet no authentic information. The plant is of erect Holly-like growth, as well as Holly-like in leafage, the greenish-flowered, drooping, cylindrical inflorescences, which are 6 inches or more long, appearing from the extremities of the branches. It is quite a valuable addition to choice shrubs, a value which will be greatly enhanced should the new-comer appear to be quite hardy in British gardens. From the Hon. Vicary Gibbs, Elstree.

Cornus paucinervis.—This new species has already proved itself quite hardy. The plant has almost the leaf growth of Bouvardia jasminoides, the white, star-like flowers being produced rather freely in dense terminal corymbs. The species is of a bushy habit of growth, the exhibited example being less than 2 feet high and fully 18 inches across. From the Hon. Vicary Gibbs, Elstree.

Carnation Mrs. Wharton. — A very handsome buff-coloured self with all the refinement and fine form of Lady Hermione. It is at once the largest and deepest-coloured variety of its class of our acquaintance, and possesses a delicate fragrance. From Mr. J. R. Batty, Skelton Castle, Yorkshire.

Catasetum Cliftonii.—A curious Orchid belonging to a genus which always commands attention from the forcible manner in which the pollen masses are ejected from the flowers. Catasetum Cliftonii produces three to five flowers on an inflorescence. The lip, which is of a soft golden yellow, gives a pleasing tone of colour to the flowers. Shown by Sir Jeremiah Colman, Bart., K.C.V.O. A similar award was on this occasion made to Sir Trevor Lawrence, Bart., K.C.V.O., for a plant of the same species shown on June 20.

All of the above plants were shown before the Royal Horticultural Society on August 1.

MARSH AND BOG PLANTS.

A COLLECTION of bog and moisture-loving plants are grown in many gardens. This form of gardening has been greatly extended during recent years. Where a suitable selection is made for the individual site and their cultural requirements are attended to, the bog garden adds a feature which is singularly attractive. It must not be thought that all moisture-loving plants will grow well in badly-drained ground. Arundo Donax and its variegated forms, Bamboos, Cardamine trifolia, Cypripediums, the showy Gentiana Andrewsii, Gunnera manicata, Primula japonica, the blue Spring Comfrey (Symphytum caucasicum) and the Globe Flowers (Trollius europæus) are a few plants which like moisture, but should be given positions away from springs or standing water.

Another erroneous idea in connection with this phase of gardening is that the plants will succeed in any soil which happens to be at hand. In many cases this is an adhesive clay, which may suit some of the commoner strong-growing plants, but is quite unsuitable for many beautiful subjects which require a light, peaty soil. Many plants treated as bog plants are really amphibious, but are most successfully grown in the soil of banks and margins of pools. One of the chief considerations when planting is to make due allowance for overflow and floods.

A GOOD SELECTION OF PLANTS.

The following plants may be grown in the bog garden; their culture is not difficult, and a selection may be of use to the amateur: Acorus Calamus (Sweet Flag) is an aromatic plant with long, green, sword-like foliage. A. graminifolius has leathery, grassy foliage; there is also a well-known variegated form. Arundo Donax (Giant Reed), which sometimes grows to a height of 12 feet or 15 feet, requires a deep soil. There are golden and silver variegated forms. These require care till well established. Astilbe Davidii, which may be styled as a gigantic Spiræa japonica, but having flowers of a rosy pink or mauve colour, is a noble plant, growing 4 feet or 5 feet in height. Another variety with arching spikes of creamy flowers is A. Thunbergii. The finest clumps of Bamboos (Bambusa Métake syn. Arundinaria japonica) which I have seen were growing on the bank of a river.

The Water Buttercup (Caltha palustris) is very suitable for massing in marshy places. Perhaps there is no native plant which can surpass it in spring when in flower. There are double forms of it. The double Cuckoo Flower (Cardamine pratensis fl.-pl.), excellent for massing in damp places, is a spring-flowering plant with compound umbels of lilac flowers. Carex acuta and C. gallica are pretty evergreen Grasses. A vigorous-growing Sedge (Cyperus longus) is an excellent plant for small islands or margins of water. Other Sedges are C. aspersus, C. lucidus, C. pungens, C. vegetus and C. laxus; these are suitable for margins of large lakes. The Egyptian Paper Reed (C. Papyrus), if grown in pots or tubs and placed in sheltered pools or tanks in May, affords quite a tropical character to the water vegetation. A plant for wet peaty soil is the Cotton Grass (Eriophorum polystachyon). This plant is common on some of the Irish bogs, and is known in some districts as the Irish Edelweiss. It is a slender grass, with silvery tufts on thin stipes.

A plant requiring pure fibrous peat is the Heath or Marsh Gentian (Gentiana Pneumonanthe), a handsome species having pale blue flowers. A plant not often planted in the bog garden, but which grows well and flowers in profusion when so treated, is Geum rivale, flowers apricot. The Gunneras are well known as the largest and most effective foliage plants for the water-side. They require deep, rich soil. The largest is G. manicata. G. scabra will grow better in dry places than the former. They require a large space to develop. Iris Kæmpferi (Japanese Water Iris), when well grown, produces one of the finest effects possible for any hardy plant. Many varieties are duplex or six-petalled. Several of the North American Lilies may be seen to advantage if planted in peat near the water-level. Lilium pardalinum and L. superbum are two of the best for this purpose. Lobelia cardinalis and its varieties are very effective near water. Several varieties of the Lychnis, also Mimulus, are excellent. An attractive subject which should be more frequently planted is Jussiena longifolia, an American bog plant. It grows 4 feet or 5 feet in height and has long Willow-like foliage, which turns crimson in autumn. The flowers are yellow, somewhat resembling the Evening Primrose. The Bog Asphodel (Narthecium ossifragum) should, where possible, be planted in masses, when it is most effective in the autumn. The rich orange red colour of its flowers always demands attention.

A pretty little upland weed, the Grass of Parnassus (Parnassia palustris) has curious white-green veined flowers, and is a charming plant for massing. The Pampas Grasses may be planted near water, and during recent years they have been largely employed in the formation of Japanese gardens, with good effect. Polygonum sachalinense is a fine plant, growing in deep, rich soil near water to a height of from 10 feet to 15 feet. The jointed stems bear large flat leaves and clusters of white flowers. The brown stems should be allowed to remain uncut; during winter they produce a cheerful effect, especially in wintry sunshine. Many of the Primroses thrive in boggy soil. Primula denticulata is fine in a bed of moist leaf-mould in a partially-shaded spot. P. rosea is perhaps the finest of its class, a charming bog plant with umbels of bright rosy flowers. P. japonica is fine for banks of streams. Saxifraga peltata grows 2 feet high, with large, circular foliage and pink flowers; it delights in wet soil. Most of the Spiræas succeed near water. Some of them, such as S. palmata, S. elegans and S. gigantea, are much finer near water than in the herbaceous borders. Scirpus Tabernæmontani var. zebrinus has very elegant leaves alternately barred with white and green; it does best in a sunny position. Spigelia marilandica grows about 1 foot high and has tubular flowers, red without, yellow within. Symplocarpus fœtidus has large, handsome foliage and curious brownish, Arum-like flowers suitable for damp woods.

COLIN RUSE.

Lambay Island, Rush, County Dublin.

HOW I MADE MY FIRST ROCK GARDEN

IT is many years since the gift of a few alpines first implanted in my affections the love of these charming flowers, whose beauties grow upon one more and more, and which possess points of real loveliness not revealed on first acquaintance, but which grow dearer and dearer as time goes on. I can yet remember some of my first alpines, and that among them there were the charming little Saxifraga Aizoon pectinata; the dainty blue Campanula turbinata, the true variety; the delightful little Saxifraga muscoides atropurpurea, and a few others. It does one good yet to dwell upon the pleasure these flowers gave, a pleasure of the highest kind indeed.

I had known rock gardens before, but those of my boyhood were such as were depicted in books like Mrs. Loudon's "Lady's Flower Garden," and were unsuited for growing alpines well. They were the homes of some of the coarser Sedums and such plants as would stand the troubles of being grown on unsuitable rockwork. So, with the possession of these few good alpines came the ambition to grow them well, and I was not above taking a lesson from the alpine-loving friend who gave me my first choice rock plants.

I had a narrow border, about 4 feet wide, along one side of a garden path and facing south-east. This seemed the best place, so, with considerable labour, I carried a number of stones to the place and began the construction of the rock garden. I set up large stones at the back, slabs about 2 feet high, and then from these, sloping to the front, towards the path, I made a mound of good soil composed

of loam and sand, with a little grit among the compost. This was cut with the spade into a series of flat terraces, about a foot across, and along the front, next the path, a row of stones was laid, with a similar row in front of each of the terraces. The outline was broken as much as the contour of the border would allow, which was not much, yet the whole really presented a slightly formal appearance when ready for planting. It may be remarked that the stones were sunk deeply enough into the soil to be firm and to stand the foot set upon them. The little irregularity in the formation of the terrace line helped to redeem the rock garden from absolute formality, even before the planting was effected.

Not being an expert in alpines, I sent a dealer in such plants a list of the flowers I already owned, and asked him for a quotation of about fifty others of his selection. This was sent; and I acquired these fifty at a cheaper rate than I would otherwise have done, while the plants supplied were a fair representation of the best alpines for a beginner.

In spring, about March, I planted my rock garden with the alpines I had given me, which were put in a spare corner until I was ready for them, and the purchased ones were planted when they arrived. Some of the trailers, such as Sedums, were used for the top, so as to hang over the slabs at the back to cover these as far as possible. The others were planted on the terraces, and when established for a year or so, the formality of the rockwork was practically hidden, and it was a feature of enjoyment to others and myself.

Such a rock garden is easily made, costs little, and is highly suitable for the bulk of our alpine flowers. On it I grew for many years choice Saxifragas, Campanulas, Dianthuses, Alyssums, Onosmas, Arnebia, Sedums, Sempervivums, Armerias, little alpine shrubs and a collection of the dwarf bulbous plants, such as Iris reticulata and others of great suitability for the position. Since that time I have made many rock gardens; but in no case have I ever had more satisfaction so far as the cultivation of my plants was concerned than in growing alpines on this, my first real home of alpine plants. ALPINIST.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

ROSE GARDEN.

Pruning Rambler Roses (*C. C. H., Sussex*).—The following varieties should have some of their oldest wood cut away as soon as they have finished flowering: Leuchtstern, Rubin, Queen Alexandra, Tausendschön, Blush Rambler and American Pillar. Leave all the current year's growth intact. The other varieties may have one or two of the old shoots removed, but it is better to defer the general cutting until spring, as they yield, more or less, an autumnal crop. Spread out the growths all you can even now, as it will much assist the ripening of the wood.

Malformed Rose (*J. W.*).—This is from one of the old-fashioned Gallica Roses, and usually comes deformed in this way. We believe the name to be Ohl.

Rose for name and treatment (*Miss A. R. D.*).—The Rose is Zepherin Drouhin. The best time to prune this Rose is March. Retain the annual growths almost full length. Any small lateral shoots cut back to one or two eyes. If it is an old plant, you might cut out one or two of the oldest growths this autumn.

Rose foliage dropping (*F. A. B.*).—From the appearance of the growths, we think there has been some defective root action or injury caused by a too powerful application of some insecticide. Until we know more particulars of the treatment, we are unable to determine which it may be. In any case, you will do well to remove these extreme ends of growths, so as to force on the next growth, which may come on all right. Sometimes strong gales will cause these breakages of the leaf-stalk.

Weeping Roses (*Northants*).—To prevent heavy-headed ramblers breaking limbs, Messrs. Pinches of Camberwell sell a very good trainer made with wire, which can be secured beneath the growths. This, together with a good stake against the stem, will make the trees quite safe. The trainers can be bought for about 1s. 9d. each. Or you can make a hoop with cane and some cross-pieces attached. These, tied to a good stake beneath the head of growth, will enable you to do such training as is needed.

Climbing Roses for hot wall (*Reader*).—Before planting Roses on such a border we should advise you to have the ground trenched 3 feet deep and work in plenty of manure with the lower soil. If you do this, you ought to get Roses to grow well in such a position. You should also remember to water them twice a week during May, June and July, giving each time a good soaking and, alternately, liquid manure and plain water. Good sorts for this wall would be Dr. Rouges, Francois Crousse and Climbing Cramoisie Supérieure, crimson; Mme. Alfred Carrière, Climbing K. A. Victoria and Alberic Barbier, white and cream; Rêve d'Or and Gardenia, yellow; and Tausendschön and Climbing Captain Christy, pink.

FRUIT GARDEN.

Nectarine trees failing to fruit (*A. G. L.*).—You say the trees are only exposed to the sun for a short time during the day. No doubt this fact alone goes a long way to explain the failure. At the same time, we think that with judicious and timely thinning of the shoots and foliage in summer, in order to give the remaining shoots all the advantage possible of what light and sunshine there is, it would be possible to have, at any rate, moderate crops. If you have not finished summer pruning your trees, you should do so now without loss of time. There is no fruit tree that suffers so quickly from the want of water as the Peach, therefore never let them be neglected, summer or winter. Do not force your trees into bloom too early in spring, but rather let them come as naturally as possible, with plenty of air in the house day and night (except when frosty and cold); and in case of hard frost while the trees are in bloom it would be wise to give some light material for protection.

Almond leaves diseased (*J. G. Hirsten*).—You are right in thinking the disease on the Almond leaves is due to the fungus Exoascus deformans, the same as produces leaf-blister in the Peach. It is in no way due to insect attacks. A reply appeared on page 303 of our issue for June 24 concerning Peach leaf-blister, to which you might perhaps refer.

Grapes withered (*W. B. I.*).—The sample berries sent have evidently been badly infested with mildew. It is that, no doubt, which has killed the berries and stalks of the bunches. It may have been brought on by too much moisture, as you suggest, and also by deficient ventilation. Air should be left on all night while the weather is fine, both for the Vines and the Tomatoes. You should powder the Vines thickly with flowers of sulphur to kill the mildew, shading the Vines in the meantime and letting it remain on for three days, afterwards washing it off with clean water and a syringe.

Plum trees not bearing (*E. R.*).—Seeing that your trees have borne fruit fairly regularly and well, and also that they have received a fairly good supply of organic manure and been recently root-pruned, it is difficult to assign a reason why they should fail this season when the conditions, as you say, have been favourable. It is, of course, well known that stone fruit will not succeed for long in soil which is deficient in lime. This may account for the failure of your trees. In any case you will be quite safe to give the borders a good dressing of quicklime, say, half a gallon to a square yard, forking it lightly into the soil not more than 3 inches deep.

Rust on Vines (*J. M. A.*).—Your Vine fol is suffering from rust, or "brands" as it is someti called. It is a fungoid disease of the same nature as t which attacks the Raspberry, Phragmidium grac How an attack on Vines is brought about it is difficul say. Heavy forcing and the consequent over-heating of pipes are said to be sometimes responsible. Cold draug of air are also said to be the cause when admitted thro the front ventilators, resulting in a sudden lowerin the temperature and a consequent chill to the young foli You have done quite right in applying sulphur. Noth can now undo the mischief, but its further spreading r be prevented by the application of this remedy. It is same disease on both leaves, only in different stages.

Apple leaves for inspection (*D. S. F.*).—insect mining the leaves of the Apple is the larvæ of a t moth called Lyonetia clerckella. It has two or th broods, and the autumn-hatched moths hibernate crevices in the bark of the trees. The eggs are laid April, the second brood in June, and a third in Aug The larva hatches out and bores into the leaf immediat feeding between the upper and lower surfaces. When f fed it leaves the leaf, when it turns into a chrysalis. W the pest is confined to a few leaves it is best to pick it and burn them; but if the attack is really serious affecting most of the leaves, nothing but the total destr tion of the foliage in September is likely to be of any av Spraying is unlikely to do any good, for the larvæ protected throughout the whole of their existence.

Selection of fruit trees (*E. H. L. Lyd*. Since Apples and Raspberries succeed so well, you co not possibly do better than plant more of these fru The Apples should be bushes worked on English Parad stock and planted 10 feet apart, giving them the sunni position in the garden and the more shady part to Raspberries. Superlative is the best red Raspber and if it is wished to have a golden one, The Guinea is best. The following twelve Apples are the best. Th are named in the order of ripening. Dessert: Mr. Gl stone, Devonshire Quarrenden, Cox's Orange Pipp King of the Pippins, Cockle Pippin and Claygate Pearma Cooking: Potts' Seedling, Stirling Castle, Lord Derb Lane's Prince Albert, Bramley's Seedling and Newt Wonder.

TREES AND SHRUBS.

Injury to Beech leaves (*P. H.*).—The appea ance of the Beech leaves suggests that they have be injured by spraying. This would also account for th dropping prematurely. No plants are so sensitive spraying as Beeches.

Lilacs (*A. E. B.*).—It is rather late to cut yo young Lilacs back now. We should advise you to them grow until next spring; then cut them back to wit a foot or so of the base and encourage a limited numb of shoots, say, four or five from each plant, next ye All surplus shoots should be removed early, in order th all the strength may go to form permanent branch You may remove a few inches of the ends of the branch now. That will assist in the formation of sound buds.

Hornbeam hedge (*M. F. S.*).—If your Hornbea hedge seems to be fairly well established, we adv you to cut it well back at once. If, however, it is n growing freely, leave it until winter and then cut it ba The only way in which you can get it to thicken at t bottom is to keep it cut back at the top and sides for year or two. It ought to be reduced by at least a fo when the first pruning is done. The best means of destro ing roots of trees is to grub them out and burn the A tool called an Australian Monkey Jack is frequent recommended for the purpose. It is a powerful jac and with its aid a man is said to be able to remove for butts a day. It is supplied by Messrs. Trewhella Brothe Birmingham.

KITCHEN GARDEN.

Runner Beans shedding their flowe (*County Wexford*).—It is a common complaint Runner Beans that in hot, dry weather they sh their flowers without forming pods. The caus are root dryness and air dryness. Your plan would, no doubt, set their flowers readily enou did you give them now a thorough soaking wi well-exposed water, doing this in the evening then placing along each side of the row, to keep th moisture from being absorbed by the sun, a coa ing of manure, which would act as a mulc Well syringe the plants all over each evenin during hot weather. This is most beneficial them. With respect to your Onion plants fro an autumn sowing going off to flower, this w no fault of the variety, but owing to the fact th they were sown too early. Quite the end August, say, the 30th, should be soon enough sow seed. Golden Rocca, Ailsa Craig, Cranston Excelsior and Wroxton Globe all did well in th National Vegetable Society's trials.

FIVE NEW NARCISSI

Top White Flower:
FAIRY QUEEN
Middle: FAIR MAIDE
Bottom: MERMAID

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PROGRESS OF THE DAFFODIL.

OUR object in publishing a Special Daffodil Number is to place our tribute of admiration at the feet of this many-hued and many-sided attendant of the great goddess Flora. The Daffodil was a great and beautiful find in "Its own dear loveliness," as it was when Messrs. Barr and Hartland found it in the wild places of Southern Europe or in the old-time gardens of our own islands. Now it is even more beautiful and more surprising, for if it ever has been possible to paint the Lily, that unheard-of feat has been accomplished by Messrs. Engleheart and Crosfield and others who here "have no memorial," but who are, nevertheless, "honoured in their generation." Many wish to follow in their footsteps, and ask for practical help and advice. In the pages that follow will be found a hybridist's symposium.

In the opinion of those who write on this subject, there is still plenty of useful work waiting to be done, and far from having reached its zenith, the development of the Daffodil is as yet only in its initial stages.

At one time Holland gave us all our Narcissi, but they were only those strong-scented Tazettas which are almost out of date to-day, and which, even in their own line, have been superseded by Van der Schoot's Poetaz. Nowadays we *can* grow and *do* grow in yearly increasing quantities in Great Britain and Ireland better bulbs than probably any other country in the world. Cornwall and Cork, Wisbech and Rush, Lincolnshire and Lismore, Lissadell and Dinton, are some of our best-known Daffodil centres. Others are yearly being added; Shovell last year, Anglesey this. This last, this but a bantling, speaks for itself in our pages to-day and utters a thought which we trust will materialise before we have grown much older.

During recent years the growing of Daffodils for cut flowers has developed into an enormous industry. In early spring Covent Garden Market is almost deluged with glistening golden blooms from the Scilly Isles, to be followed later by those from the Wisbech, Twickenham and other districts nearer the metropolis. Thus we see that, in addition to its beauty and sentiment, the Daffodil has its utilitarian side, and provides healthy employment for many thousands during a considerable portion of the year.

Thirty years ago few grew Daffodils, and the popular idea was that there was one double and possibly two or three single varieties. Now "the man in the street" knows better, and everyone who has a garden or a greenhouse wants to grow some. Their cultural requirements are now fairly well known. Some of the more important ones will be found incorporated in our pages, but he who "runs" will "read" the best. The Daffodil has become, for good or evil, a show flower. Exhibitions are on the increase. Cornwall gave the lead, Birmingham followed; but the end we hope no one living may see. Necessities of the show-table and dealers' lists demand a universal language—a Daffodil Volapük that all may understand. An interesting feeler by the Rev. J. Jacob appears on another page, and we trust this may lead to a practical end and help to classify descriptions which are too often obscure or ambiguous.

The methods of growing the Daffodil have, in common with the flower itself, been completely revolutionised during the past thirty years, but it is as a flower for our gardens that we admire it most. The rock garden, herbaceous border, shrubbery and grassy woodland owe not a little of their beauty in the early months of the year to this flower of spring, a flower that, as two of the illustrations in this issue show, is capable of being naturalised in those parts of our gardens that were at one time regarded as little more than an eyesore. Nor must we forget its value for the greenhouse or dwelling-house. Grown in pots of soil or undrained bowls of fibre, it is a plant that the novice can manage and induce to give its flowers in abundance.

The time for planting Daffodils is with us, and we hope the information given in this issue will assist those who are in doubt as to which varieties to buy for any special purpose. And may we hope that those who have hitherto only given a passing thought to this flower of spring will be induced, after reading the experiences of others, to give it the place it deserves in their gardens, homes and hearts.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 21.—Warkworth Horticultural Show.

August 22.—Royal Horticultural Society of Ireland Flower Show. Barnsley Agricultural and Horticultural Show.

August 23.—Shrewsbury Show (two days).

August 24.—Ellesmere Horticultural Show. Peebleshire Horticultural Society's Flower Show.

August 25.—Highland Horticultural Society's Show.

August 26.—Glassford Flower Show.

Royal International Horticultural Exhibition, 1912.—The revised schedule for the International Exhibition, to be held at Chelsea in May next, is now ready for distribution, and copies may be obtained, post free, from Mr. T. Geoffrey W. Henslow, Secretary, Royal International Horticultural Exhibition, 7, Victoria Street, Westminster. The awards include presentation cups offered by His Majesty the King, the Duke of Portland (president of the exhibition) and others, also a very large number of gold and silver medals. In some of the more exacting classes money prizes accompany the medals, in order that exhibitors may be compensated for expenses necessarily incurred.

A proposed travelling studentship for fruit-growers.—This subject is under discussion in the pages of the *Monthly Magazine and Circular* issued by the North of England Horticultural Society. Mr. Cecil Hooper, a well-known Kentish fruit-grower, favours the granting of a certain sum to enable an existing fruit-grower to go to other countries, especially North America and Australia, to study and work up such subjects connected with fruit-growing as he thinks might be applicable to England, *e.g.*, packing fruit, spraying, orchard demonstrations, visit experimental stations and to ascertain which varieties of Apples are self-fertile and which self-sterile and the best pollenisers for certain varieties, study the State laws to prevent the importation of fungus and insect pests, and the inspection and compulsory methods of dealing with existing evils. The writer further proceeds: "My fullest suggestion would be to visit some of the fruit-growing districts in Canada, say, in Ontario and British Columbia, then visit Oregon and possibly California, arrive about May and see the whole working, leaving, say, in November after a good turn at Apple packing, then go on to New Zealand, Tasmania and Australia, to be out there for their summer, returning at the end of April to make the journey a year; if done economically this could probably be done for £500 or £600. If this amount was too great and the time too long, the Canadian and United States trip might alone be undertaken at a cost of, say, £200; as I was once in Canada and the United States seeing their agriculture and agricultural Colleges on a three months' trip which cost me £80. I did economically but sufficiently comfortably. The student should on his return be willing to give an account of what he has seen at any Fruit Growers' Association meeting in this country, and be willing to visit and show methods of packing, spraying, &c., at any farm, for which a definite charge should be made. The student should also write a diary for publication, illustrated with sketches and photographs. Personally, I believe this scheme might be of great benefit to fruit-growing in very many ways."

Festival of Empire Rose Show.—Preparations are being made for an autumn Rose show of unusual magnitude in connection with the Festival of Empire, Imperial Exhibition and Pageant of London. It is to take place at the Crystal Palace on August 31 and September 1, and it is anticipated in some quarters that this show will even exceed the splendour of the June one. The principal feature will be groups of flowers from both trade and amateur growers. The season is so far advanced and the second crop of Roses is already past its best in some localities, so that very heavy entries from amateurs in the smaller classes can hardly be expected. It is anticipated, however, that this will be compensated for by the quality of the mixed groups, making this show a marked feature of the Festival of Empire. There are no fewer than fifty-three classes for Roses, and the exhibits will be judged according to the rules of the National Rose Society. The schedule and full particulars concerning this show may be obtained from Mr. T. Geoffrey W. Henslow, Horticultural Department, Festival of Empire, Crystal Palace.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

International Horticultural Exhibition, 1912.—I have just received printed particulars of the arrangements made as to entrance tickets, from which I find that the Royal Horticultural Society have agreed with the International Association: (1) To forego in 1912 the Temple Show. (2) To contribute £1,000 towards the expenses of promoting the International Exhibition. (3) To guarantee a further sum of £4,000 against an ultimate loss. And the Royal Horticultural Society have apparently acquiesced in the following exorbitant charges of entrance to the International Show for the first three days, viz., first day, £2 2s.; second day, £1 1s.; third day, 10s. All flower-lovers know what flower shows are after the first day, and, naturally, those who are sufficiently keen gardeners to have become Fellows of the Royal Horticultural Society would wish to see the show on the first day, or at least on the second day. But are not the above prices practically prohibitive to the rank and file of the Fellows of the Royal Horticultural Society? I therefore, naturally, looked to see what privileges the Fellows of the Royal Horticultural Society were to get for the liberal support the society is giving the International Show, and I find that it amounts to this, omitting small details: (1) Fellows subscribing £4 get two tickets for the first or second day at half-price, or one ticket at half-price on both days. (2) Fellows subscribing £2 2s. get one ticket for the first or second day at half-price. (3) Fellows subscribing £1 1s. get one ticket for the first day for £1 10s., or one ticket at half-price for the second, third, fourth or fifth days. I venture to think that many of my co-Fellows who pay £1 1s. subscription to the Royal Horticultural Society will hesitate before they pay £1 10s. to see the show on the first day or 10s. 6d. on the second day, and it is on behalf of those who are not perhaps so well able to pay the 30s. that I venture to ask you to ventilate the information above mentioned, as I hope that it is not even now too late for the association and the society to reconsider the position of the rank and file of the Royal Horticultural Society in regard to the charges for entrance.—C. LEMESLE ADAMS, *Pendeford Hall, near Wolverhampton.* [A copy of the foregoing was sent by Mr. Adams to the Rev. W. Wilks, M.A., secretary to the Royal Horticultural Society, to which the following reply has been received: "1. First let me thank you for your courtesy in sending me a copy of the letter you have addressed to THE GARDEN. I am similarly sending a copy of this to the same journal. 2. It is not, I think, quite correct to say that 'the Royal Horticultural Society have acquiesced in the . . . charges,' although, of course, I notice the qualifying word 'apparently,' for (without expressing any opinion, and I desire to express none either way) as a matter of fact the Royal Horticultural Society was not consulted as to what the charges should be. The agreement with the International was entered into before any charges were settled, and was made on the basis that, whatever the charges might be, such-and-such proportionate reductions should be made to Fellows purchasing tickets. It was considered that the directors of the company would be the best judges of their own and their supporters' interests in fixing the charges for the different days, and that so long as adequate preferential treatment was received for all Fellows of the Royal Horticultural Society over the general public, all had been done that could fairly be asked. 3. There is also, I may remind you, another way of looking at the matter of the society's contribution, and it is this: If the Fellows exercise their option in purchasing tickets, the society will, for its subscription of £1,000 and guarantee of £4,000, reap £15,712, the calculation being based on the number and status of the Fellows on January 1, 1911. We must not, therefore, be too loud in boasting of the liberal support the society is giving to the International. 4. May I emphasise that the society has no manner of control whatever over the company. The directors of the company are free to fix such charges as they think will, from their point of view, prove remunerative. (I particularly refrain from expressing any opinion whatever on the wisdom or folly of what they have decided upon.) The office of the Council of the society was to make the most advantageous agreement they could with the directors of the company, and I venture to think that the proportion of reduction of charges (whatever that charge may be) which they secured is distinctly advantageous to the society, as the total of nearly £16,000 divisible among the Fellows of the society seems to prove.—W. WILKS, *Secretary, Royal Horticultural Society.*"—ED.]

The parentage of Roses. — I was much interested in Mr. Daniel's article appearing in THE GARDEN for May 13. Curiously enough, I have been publishing a similar list in the *Journal of Horticulture* (the Australian GARDEN) for some months, and I find that we have much in common. At the same time, while my lists include many that Mr. Daniel has not given, he gives the parentage of a number of what may be called miscellaneous Roses, in which I have hitherto taken very little interest and, consequently, have not bothered to procure the parentage. One error is obvious in Mr. Daniel's first list. The parentage of Angela Mull and Angela Peluffo are evidently transposed, and if I am not mistaken, Soupert et Notting sent out Anne Marie Soupert as Mme. Ernst Metz × Mme. Jules Grolez, and not Ernest Metz × Mme. Jules Grolez, a very much weaker pedigree. Again, Mr. Daniel quotes Duchesse Mathilde as one of the parents of Angela Mull—as corrected above—and I am inclined to believe that the value of such a reference would be much enhanced if Duchesse Mathilde's synonyms had been used.

for it is better known and is listed by the National Rose Society as such.—Arthur Moore, *Hunters Hill, New South Wales.*

Tricuspidaria hexapetala. — This beautiful Chilian shrub, referred to under the above name on page 366 of The Garden, has quite a plurality of names, the synonyms being by no means limited to a single one, as appears to be the opinion of your correspondent. The latest name, and that which botanists now regard as the correct one, is Tricuspidaria lanceolata, previous to which it was known as Tricuspidaria dependens. This last name is, from the drooping nature of the blossoms, a very characteristic one, and it is a great pity that our botanical friends should have changed it. This change seems to have been brought about in the following manner: In 1901 seeds of what was described as a white-flowered Tricuspidaria were sent to Kew, and when the resultant plant or plants bloomed, careful comparison with the specimens in the herbarium showed it to be unquestionably Tricuspidaria dependens of Ruiz and Pavon, the founders of the genus; and the plant figured in the *Botanical Magazine*, that is, the red-flowered drooping species, corresponds with the Tricuspidaria lanceolata of Miquel. It is a great pity that our botanists, who from a horticultural standpoint often seem to change established names on the least provocation, should on this particular occasion have been such sticklers for priority as to take away the appropriate name of dependens from a drooping-flowered shrub and bestow it upon one whose flowers are not drooping. At all events, according to botanical dictum, the plant your correspondent and, in fact, everyone else so much admires must be known by the name of Tricuspidaria lanceolata.—H. P.

The Shasta Daisies and late Canterbury Bells.—One of the accidental combinations by no means rare that have given very beautiful results towards the end of July has arisen from a lot of late-flowering Canterbury Bells, in dark blue and flesh colours, that were grouped in a large bed with extensive patches of the early-flowering Daisy Mrs. C. L. Bell. The large-flowered Daisies of comparatively recent introduction are among the best things in the herbaceous borders, and the variety above named, on account of its extra-sized flowers, dwarf habit and early and continuous blooming, is certainly quite in the front rank. It is always gratifying when improvement in the quality of the flower is not attained at the sacrifice of the constitution of the plant, and in this case too deep tilth and liberal supplies of manure are followed not only by increased vigour, but by a wonderful profusion of flower. There is a certain amount of stiffness in both families, but a mixture relieves this and forms, as noted above, a very pleasing combination. I have referred in another note to the fine forms of Canterbury Bells. Prompt removal of seed-pods has given a second display quite as good as the first, except that the bells are smaller. It is this second display that is associated with the flowering-time of the earlier Shasta Daisies. In connection with the latter, it may be noted that, although they make up fine vases in show collections, they should be but sparingly used in living-rooms, as the odour from them, although perhaps not decidedly objectionable, can hardly be called agreeable. The only enemies causing any trouble are black fly and the leaf-boring maggot, the latter sometimes appearing in sufficient numbers to render the foliage very unsightly, and the crippling of the foliage means deterioration in the flower. In seasons and districts where the fly responsible for the maggot is numerous, it is advisable early in the season to give occasional applications of some insecticide to the foliage that will render it distasteful to the insect.—A. G. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruit Garden.

EARLY APPLES.—These are ripening much earlier than usual this season. Should the weather continue to be hot, it will be better to gather them and place them in a cool room, as they quickly become mealy when ripe. Under the best conditions early Apples do not keep long; therefore too much space should not be occupied in their cultivation. The fruits which are sent to the table must be carefully selected. All over-ripe fruits should be discarded.

Peaches and Nectarines Outdoors.—When the fruits from the earliest trees have been gathered, the trees should be given a good watering. All the surplus wood should be removed, so that the young growth may be fully exposed to sun and air. If red spider or aphis is present on the foliage, let it be thoroughly drenched with an insecticide. Afterwards wash it occasionally with clear water. See that later trees are well supplied with moisture at the roots and fully expose the fruits to the sun.

Pot Vines.—The canes which are being grown for the supply of early Grapes next season must be thoroughly matured before the end of the autumn. To facilitate this, syringing should be discontinued and the atmosphere kept drier. The roots must, however, still be kept well supplied with moisture. Admit abundance of air to the house, and later on, when the canes are thoroughly hardened, place them outdoors in an exposed situation. It is essential that the foliage be kept quite clean; therefore, should red spider or mildew appear on the leaves, syringe them with a strong solution of soft soap and sulphur.

Early Fig Trees in Pots.—Any trees which require repotting may be done now. Trees in extra large pots should not be disturbed unless they absolutely require it. If the drainage is clear and the roots are in a healthy condition, such trees will go undisturbed for several years. Young healthy trees which are in need of repotting should be given a slightly larger pot. The Fig enjoys a compost of good fibrous loam, decomposed horse-manure, crushed bones, wood-ashes and old brick rubble in suitable proportions. When potting, see that the soil is made quite firm, and that the space between the roots and the side of the pot is filled with soil. Those trees which are not repotted must be given a good top-dressing of soil, but before this is done remove a good portion of the old soil from the surface of the pots with a pointed stick. The repotted trees must be shaded for a few days and frequently syringed, but water must be applied to the roots with discretion. Later trees may be treated in the same manner when they have finished fruiting.

The Orchard-house.—The pot trees must be moved outdoors when they have fruited. If the pots are plunged in ashes, it will save much time in watering, and will be much better for the trees. Syringe them vigorously late in the afternoon, and occasionally apply an insecticide to keep them clean. Manure-water may be given them once or twice a week till they have been repotted. Lateral growths must be kept stopped, and any surplus shoots which might tend to exclude sunlight and air from ripening the wood should be cut out. The permanent trees must be given copious supplies of water as soon as the fruits are gathered, and the foliage must be frequently washed with the hose to keep it clean.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Fruits Under Glass.

Peaches and Nectarines.—Trees in pots that have supplied an early crop of fruit will now have completed their growth, and should be removed to a sunny position out of doors. Stand the pots on slates or boards to prevent the entry of worms. Any superfluous shoots that may have been overlooked at the earlier thinnings should now be removed, and the plants kept regularly syringed against attacks of red spider. Repotting should also be done at this season while the roots are still in an active condition. In repotting, sufficient room should be given for a layer of fresh soil all round the old balls. The compost should consist of good fibrous loam, wood-ashes, lime rubble and bone-meal. The mixture should be moderately dry and firmly rammed into the pots, keeping the ball low enough to admit of a thin layer of fresh soil on the surface, besides leaving sufficient room for watering and a top-dressing during the growing season.

Young Trees growing in borders indoors usually require to be lifted and root-pruned several times before finally settling down as regular fruiters. Whenever a too vigorous production of young wood is noticed, root-pruning should be attended to; this consists of carefully lifting the tree and replanting it with as little disturbance to the fibres as possible. Shorten a few of the strongest roots by a clean cut with the pruning-knife and remove any that have been bruised or damaged in the lifting, replace the tree before the roots get dry and give a good drenching of water.

Old Trees.—Where old and worn-out trees require to be replaced with young ones, the borders should be renewed from the foundation, and the drainage examined and made good. They should have a depth of from 2 feet to 2½ feet of soil, made thoroughly firm. Trees should be ordered well in advance of the planting season, and, if possible, they should be kept a season or two growing on an outside wall before planting them indoors.

Kitchen Garden.

Spinach.—A good breadth of Spinach should be sown about this time to provide an early spring dish. The seeds should be sown in rows about 18 inches apart on a well-prepared piece of ground, and as soon as the plants are large enough to handle they should be thinned out to 6 inches apart. A sprinkling of soot from time to time between the rows serves to keep slugs in check.

Lettuce and Endive.—Another sowing of Lettuce may still be put in. Select a variety that comes quickly to maturity. Endive plants should be tied up with matting to get them well blanched. Later batches may have empty flower-pots put over them, which, besides giving the necessary blanch, protects them from the early frosts.

Celery.—Before earthing-up the trenches should be thoroughly cleared of weeds and the plants given a final soaking of liquid manure. Trim the smaller leaves from the base of the plants and place a weak tie of matting round each plant to prevent particles of soil from getting under the leaf-stalks and so spoil the appearance and quality of the heads when lifted for use. If the soil is brought slightly higher up than where the tie is made, the tying material will soon decay, and will not in any way impede the growth of the plant. For exhibition purposes collars of paper and similar substances, as well as other devices, are frequently used to produce clean specimens; but when grown for domestic purposes only, the improved appearance scarcely warrants the additional labour. Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

WANTED, A DAFFODIL GLOSSARY.

I HAVE often thought, when I have been trying to convey an idea of a flower by a written description, how in many ways the task would be made easier and shorter if only there were a certain number of technical words or terms which were *universally* recognised and understood among Daffodil people. The time appears to have arrived when at least it does not seem out of place to make the suggestion, and in so doing to give an idea of a scheme which might be taken as a basis of discussion. What I mean is this: That just as the old florists' Tulip has certain of its qualities and diversities summed up in such words and phrases as "beam," "flamed," "feathered," "does not quarter," "pure base," "plated" and so on, so the Daffodil might be similarly treated, to the mutual benefit of all concerned.

To proceed to details. Take the corona. There are three main types—that of an Emperor, that of a Barri conspicuus and that of an ornatus. The first should be called a *trumpet*, the second a *cup* and the third an *eye*. Then, by adding to each of these the word large or small, it would be an easy matter to place nearly every flower there is under a heading, fairly accurately describing its general appearance. Ornatus would be a small eye. Incognita would be a large eye. Similarly, Firebrand would be a small cup and Blackwell a large cup. The new system of measuring will help the pigeon-holing of varieties very considerably. If only six well-known flowers are taken as types or standards, it should not be a very difficult matter to place any given variety in the division to which most nearly it approximates.

Again, take the shape of perianth. We find it is very different in a Peter Barr, a William Goldring or a Lucifer, and a Tenby or a Monarch. The first has one that starts away more or less at right angles to the trumpet, and then bends and becomes parallel to it. In the second it starts at an acute angle, and then bends in and to a certain extent seems to hide the trumpet. In the third example the whole stands out stiff and firm at right angles. These might be called respectively "campanulate," "hooded" and "rectangular." The majority of Ajaxes could soon be classified under one of these heads, and where there was any doubt as to where a particular one should be put because of its not exactly falling under any of our types, the convenient botanical prefix "sub" might very readily be made use of to signify that it approximates to so-and-so. Another prominent feature is the relative position of the perianth segments to one another. If they overlap as in Whitewell, the perianth might be said to be "imbricated" (Herbert). If they do not, or only a very little, I would suggest "parted" (Asa Gray). I do not like the word "starry," as this should, in my humble opinion, rather refer to the shape of the whole flower. Torch is a flower with a "parted" perianth. Frank Miles is a starry flower.

In further considering the cups and eyes, it is very obvious that the distribution of the colouring pigment is an important point. In some cases it is confined to a well-defined narrow band round the edge; in other cases there is no distinct dividing-line, but it is gradually lost in the yellow of the centre. Might not we call the first type of coloration an "edge" and the other a "suffusion"? Thus, ornatus would be said to have an eye, *edged* red, and Blackwell a cup, *suffused* red. Other points which deserve notice are the top of the corona, the shape of the individual perianth segments, the look of the flower as a whole and its behaviour during life. In the trumpet-shaped corona we get every gradation of serration, from the clean-cut-off look of muticus and Queen of Spain to the rough-looking, jagged edge of M. J. Berkeley or a Dutch variety called Beethoven. Similarly, there is a considerable diversity in the edges of the cups and eyes.

With regard to the shape of the segments, almost the only term in general use is "almond-shaped," but I think it is used with no very clear idea of what it is. "Twisted" is another term which is very frequently used rather loosely, as I find it describing the incurving of the segments in Frank Miles and the corkscrew look of the petals in Santa Maria. Possibly not many terms are wanted for these, especially if the look of the whole flower is considered as well. This is a point which I think is important, but which does not seem to have received the attention it deserves. It would be a decided gain in description if only we could agree upon a few names to denote the general aspect of a flower. Circular and starry are obvious words to use, but the latter is too vague. We want a term for such a shape as that of Golden Jubilee on page 399. There is a look of the cogged driving wheel of a cycle about it, especially when it has been a little worn. A possible word to describe this appearance, although it would be a loose way of using it, might be "lobed."

Lastly, the behaviour of the flower as it ages calls for one or two descriptive words. "Buckles," "reflexes," "goes wingy" and "keeps flat" are frequently found in dealers' lists, and very valuable information they give. Will Scarlett goes wingy, Occident keeps flat, Estelle reflexes, Mme. Plemp buckles, maximus twists, and so on.

I think I have now said enough to call attention to the usefulness of having a certain number of well-defined technical words or terms with regard to the Daffodil. Whether they should be many or few and what points they should describe are matters which might profitably be discussed, supposing, of course, as I believe there will be, a general consensus of opinion in favour of something of the kind being evolved. JOSEPH JACOB.



NARCISSUS TRIANDRUS ALBUS IN A ROCK GARDEN NEAR LONDON.

NARCISSUS TRIANDRUS ALBUS.

ONE of the most charming bulbous plants for the rock garden is Narcissus triandrus albus, with its pale, milk white flowers and its pretty pendulous habit. It is difficult to imagine anything more lovely than a group of these dainty flowers, coming as they do in March and early April. The leaves of this Narcissus are so grass-like that they are hardly noticeable, and so do not detract from any later-flowering plant among which they may be planted. I find it does best when given the shelter of a rock from cold winds, and I prefer it planted in small colonies, as shown in the accompanying illustration. Sandy loam, with a little leaf-soil added, suits it splendidly. One important point to remember in all such cases is to get the bulbs into the ground as early as possible, and whenever practicable by September or October. Other well-known varieties of N. triandrus are: cernuus (drooping), concolor (one coloured), lenteus (yellow), and nutans (nodding). R. A. MALBY.

HYBRIDISING AND RAISING DAFFODILS FROM SEED.

So much has been written about this fascinating subject that it seemed to me, when I was asked to put together a few notes about the cross-fertilisation of Daffodils and the raising of seedlings, there was not much more to say. However, I promised to write something, so write I must. Although I may be repeating much that has been said before, I trust that these few simple notes may be of use to beginners, and may be the means of inducing more Daffodil enthusiasts who have not yet tried seedling-raising to make a start.

The first thing to do is to get the necessary material to work with. Decide what bulbs you require, order in good time and plant early. What varieties are best for the purposes of seed and pollen is a question that may well exercise the minds of the keenest and most experienced raisers, and it must be left to each individual worker to use his own judgment as to which he will use as seed parents and which for pollen. The beginner must not think that every variety will seed, or that the pollen of all is fertile; far from it. The good seeders are comparatively few, and there are many that produce pollen which is useless. So for the guidance of those who are only now commencing I will give the names of just a few which I have found to be good seeders: Emperor, Mme. de Graaff, Weardale Perfection, Duke of Bedford, Monarch, Beacon, Firebrand, Princess Mary, Minnie Hume and the Poeticus varieties. A few good pollen parents are King Alfred, Mme. de Graaff, Weardale Perfection, the Poeticus and triandrus. These are only a very few, but there is plenty of work to be done in intercrossing them, and one could not go far wrong whichever way one tried them.

The process of pollination is simple. First determine which variety is to seed and be careful to remove the anthers before the pollen is ripe; this must be done before the flowers are open. Then wait until the flower is thoroughly developed and apply the pollen from the other variety selected to the stigma of the one that is to bear seed. A pair of forceps is necessary for extracting the anthers from the flowers intended for seeding, and I use my forceps also for carrying the anther with the pollen on from one flower to the other; there is less risk this way of getting the pollen mixed than by using a brush. Mark the stem with coloured wool or a small label and give it some support, so that it may not be broken off by rough wind (a coil stake as used for Carnations is as good as anything), make a note of the cross, and when the time comes watch for the seed-pod to begin to turn yellow. Cut it with a little of the stem before the pod bursts and ripen in a safe place.

The seed should be sown soon after it is harvested in pots or boxes of prepared soil with thorough drainage. Cover the seed with about a quarter of an inch of soil and plunge the boxes or pots to the rim in a bed of ashes in a cold frame, only putting on the lights to keep off frost or heavy rain. They will require watering carefully during dry weather, and the seedlings should remain in the boxes for two years; then turn them out, but do not dry them off, and plant in the open in prepared and well-drained beds where they can remain until they flower. The young bulbs should not be planted too deeply, as they will work their way down to the proper depth as they grow to flowering size. A covering of about 3 inches of soil should be sufficient when planting. They will mostly flower in the fourth or fifth season from sowing the seed. A good stock of patience is necessary to get through this time until the first batch of flowers appears. It is then that the real interest begins, for one not only has the pleasure of perhaps finding some distinct and beautiful flower, but there is the further possibility of intercrossing and seeding these new sorts, and there seems to be no limit to what can be done when one thinks of the ever-increasing number of varieties there are to work with.

There is plenty of room for more really good Daffodils, and when working do not forget that there is something more wanted than the flower. Try to get a good stem and a vigorous constitution, and for this reason avoid, as far as possible, using varieties that havn not these qualifications. But, I hear you say, "Why advise us to use triandrus?" I can only say that although the seedlings mostly have poor constitutions, there are exceptions, and even if one had to raise a fresh batch each season, they are so beautiful that it would be well worth the trouble. I have had some nice varieties from Emperor crossed with cyclamineus, but most of these have weak constitutions. The corbularia or Hoop Petticoat crosses do not give satisfactory seedlings; they are interesting, but of no value.

Seedlings generally show the characters of their parents fairly equally, although it is generally supposed that the pollen parent gives colour and the seed parent form. It is by raising large numbers that one is enabled to select the few really striking varieties. There may be just one flower in a bed of seedlings that stands out by itself far ahead of all the others in quality, size and vigour; this is the prize that will reward you for all your work and patience. The more seedlings you have, the more rigidly you can select and the more likely you are to get a really fine flower. Remember that you may not necessarily be out of the race because you cannot afford to buy the very expensive new varieties, although I grant you will have a better chance if you do possess some of them. Many of the best seedlings that are appearing year by year are produced by crossing comparatively cheap varieties, such as those I have mentioned above.

W. A. WATTS.

NARCISSUS TRIANDRUS SEEDLINGS.

THE group of triandrus seedlings illustrated on page 394 was exhibited last spring by Mr. E. M. Crosfield for the Walter Ware Cup at Birmingham, and after a severe ordeal was awarded the first prize by the judges. Six to eight years ago the flowers of this type that one knew best were such varieties as Dorothy Kingsmill, Earl Grey, Countess Grey, Bennett-Poë and Cecil Rhodes, and from their being such prominent flowers in all Miss Willmott's groups, notably her gold medal one in 1907, they were frequently called Willmottii. Many of these are now in commerce, and for the information of any who wish to purchase, I may mention that Mr. C. Bourne of Simpson, near Bletchley, makes rather a speciality of them.

My particular object in this present note is to call readers' attention to the still more delicate and more beautiful hybrids which have in the last season or two come so much to the front. The pollen of both triandrus albus and the larger and rarer t. calathinus is, as every hybridist knows, very potent, and trumpets, Poets, incomparabilises and Leedsiis all readily lend themselves to its influence. As a consequence we get an infinity of form and a very considerable diversity of colour. From yellow and bicolor seed parents come the yellow shades, and from the whiter flowers we get the whites. I myself love these pure white blooms best, and, now I know how easy it is to get them, I am yearly making crosses with this end in view. I use more especially the Leedsiis, great and small, and anticipate an abundant harvest. Mr. Crosfield writes to me that in the heavy soil of his new home near Bridgwater he cannot manage them as well as he used to do in the lighter land of Little Acton. A great many, too, have a poor constitution anywhere; but as they can be so easily raised, if only a constant succession of annual sowings is kept up, it really does not much matter.

Latterly some of the best flowers with a good constitution have been selected and grown on, and some of these are now being offered for sale. Mr. Herbert Chapman of Rye, Mr. W. A. Watts of St. Asaph and Messrs. Cartwright and Goodwin of Kidderminster have unnamed triandrus hybrids in their lists. However, I confidently look forward to the time when lovers of these beautiful flowers will be independent of the dealers and raise their own. The way is simple and the parents are cheap. Buy some triandrus—albus will do very well. They are only about 8s. 6d. a hundred, or 1s. 3d. a dozen. Put their pollen on any Ajax, Leedsii or Poet. Sow the seed as soon as it is ripe. Possess your soul in patience for three years. Do the same thing annually. You will then be richly rewarded, after the first long wait is over, by an abundant harvest of some of the prettiest and daintiest flowers that anyone need wish to see.

J. J.

THE DAFFODIL SHOWS AND AFTER.

COMPARATIVELY short is the season of the Daffodil—though it is lengthening, as I will endeavour to show later—and consequently the Daffodil enthusiast has his mind very full indeed at the time of the shows, and it is difficult to carry away an appreciative recollection of all the beautiful varieties which he sees. I therefore think that until the Royal Horticultural Society committee issues a Daffodil Year-book it would be very interesting and instructive if correspondents would give their ideas on the various flowers which have attracted their own particular attention, as I venture to give you mine.

In reference to the lateness of some of the varieties, it would seem to me that there is a want of a show in the Midlands a week or ten days after the one at Edgbaston. Many flowers in the Midlands do not open till the first week in May, and they consequently are never seen at the shows. I wish the Shrewsbury Spring Show could be made to fill this want. I will now take the flowers in alphabetical order from my "Where Is It?" note-book.

Algernon Swinburne.—One of Mr. Engleheart's Poeticus varieties, of which I had a bulb from the Kidderminster firm. It is a very fine, brilliant scarlet red-eyed Poeticus, with nice, clean, overlapping perianth with rounded segments, and should be useful to the hybridist both as a pollen and seed parent; as a pollen parent it is very potent.

Bloodstone.—This was always a striking flower, but as shown by Messrs. Barr and Sons this year it was more than interesting, as the "bloodstone" disc forming the corona was very wrinkled and tufted. Possibly to the expert critic this was incorrect, but I thought it added to the attractiveness of the flower, and it may be the progenitor of a new departure.

Challenger.—I did not think it shone at Edgbaston this year so well as last, though Mr. Pearson had a fine bloom. As a garden flower it is absolutely a success. With me it not only opened in continuous rain, but seemed to enjoy it, and threw a magnificent upstanding flower which kept its form and colour for nearly three weeks. It is also apparently very free, as both the offshoots on my bulb gave a good flower.

Chameleon is quite a break—a small trumpet flower with a trumpet pink inside and citron outside! It has a well-formed perianth with an almost white blotch at the base, with the remainder of the segments the same colour as the outside of the trumpet. This flower is so much a break from all preconceived ideas that it is not surprising that views differed as to its merits. As a flower I call it attractive, and as a progenitor its possibilities are extraordinary. Its pollen is potent.

Charles.—A very fine, striking flower, something after the style of Challenger, but the cup is not flat. It also reminds me of Southern Star with a much broader band of orange scarlet to the edge of the cup. The perianth is white, and of good style and substance. The illustration in the Rev. J. Jacob's book does not do this flower justice.

Coronation.—This, Snow King and Sarchedon, I think, were in juxtaposition on Mr. Crosfield's stand at Edgbaston, and it seemed to me that in these three flowers lie the possibility of the "perfect Poet," which I do not think we have yet got. Acme is perfect of its kind, but it is not a "thick flower," and is inclined to reflex too much; Cassandra is wanting in eye; Horace loses its colour too quickly, and so on; one is too small, one too round, and another too straight in the petal. Coronation would seem to be a great advance, but if it is open to criticism, I think it is too round and compact. It is, however, a lovely flower, and Mr. Crosfield is a lucky man in possessing it. I hear it is a seeder.

Felspar.—One of Mr. Copeland's Giant Leedsiis, with a very large, open-mouthed, palish yellow cup. This appeared to me, as grown at Messrs. Cartwright and Goodwin's nursery, to be a fine and distinctive Leedsii, and its pollen is very potent.

Heroine.—This is undoubtedly more than "a glorified Albatross," and, having grown it, I know it gives good colour outside, which I cannot get Albatross to do. I fell in love with it again at the early spring show of the Royal Horticultural Society, and ordered a bulb to be dug up and sent me in March, and it did perfectly well! I fondly hope I have got some seeds from and by it. It should give some wonderful flowers.

Hotspur may be described as a green-eyed Poeticus, and it was given an award of merit at Edgbaston.

Jacob Faithful.—A cowslip-coloured flat eye with a green centre, and a pure white over-lapping perianth of good form.

Marie Louise.—I was pleased to see this flower at the Royal Horticultural Society's early show, as it has had a somewhat tragic life. The original bulb was seriously damaged. The bright red-eyed flower shown this year makes one wish to see it again.

May Hanson.—A beautiful pale Giant Leedsii that secured an award of merit at Edgbaston.

Miles Standish.—A very large pale yellow trumpet bicolor—I should say a seedling from Weardale Perfection. As shown by the raiser, Mr. Mallender, and as seen on Mr. Pearson's stand later, it is the finest flower of its kind I have yet seen shown. The trumpet is long, but not too long, and stands on a "platform" of solid, well-shaped petals. It is just the right length for the strength of perianth, and recurves at the mouth sufficiently to save a hard effect.

Miss Willmott is best described as a glorified Poeticus, and is to my mind a very fine flower; its large, clear yellow-centred eye and distinct red edge on the large, well-formed white perianth constitute a combination which cannot be passed, and it will appeal to "the man in the street," I am certain. To the highly critical specialist, perhaps, it might be called wanting in the more refined qualities of a true Poeticus, but of its kind I know of no better flower.

Much the Miller.—This is a wonderful flower. As shown by Messrs. Cartwright and Goodwin at the Royal Horticultural Society it was very beautiful. The trumpet of pale soft yellow and the wide-spreading perianth well set back make it very striking. When grown strongly it attains, before going off, a colossal size, but such size takes away, I fear, from its youthful beauty.

Orange Queen.—A large orange flat cup. The floral committee at Edgbaston desired to see it again.

Patrician.—As its name indicates, this is a "noble" Giant, of Leedsii type, and of refined colouring in its pale citron cup of beautiful dimensions and its unique foundation of an almost flat white perianth. This latter reminds me of the perianth of Mrs. Robert Sydenham when well grown. I think this is the flower I "spotted" when shown in a single bloom class at Cornwall three years ago.

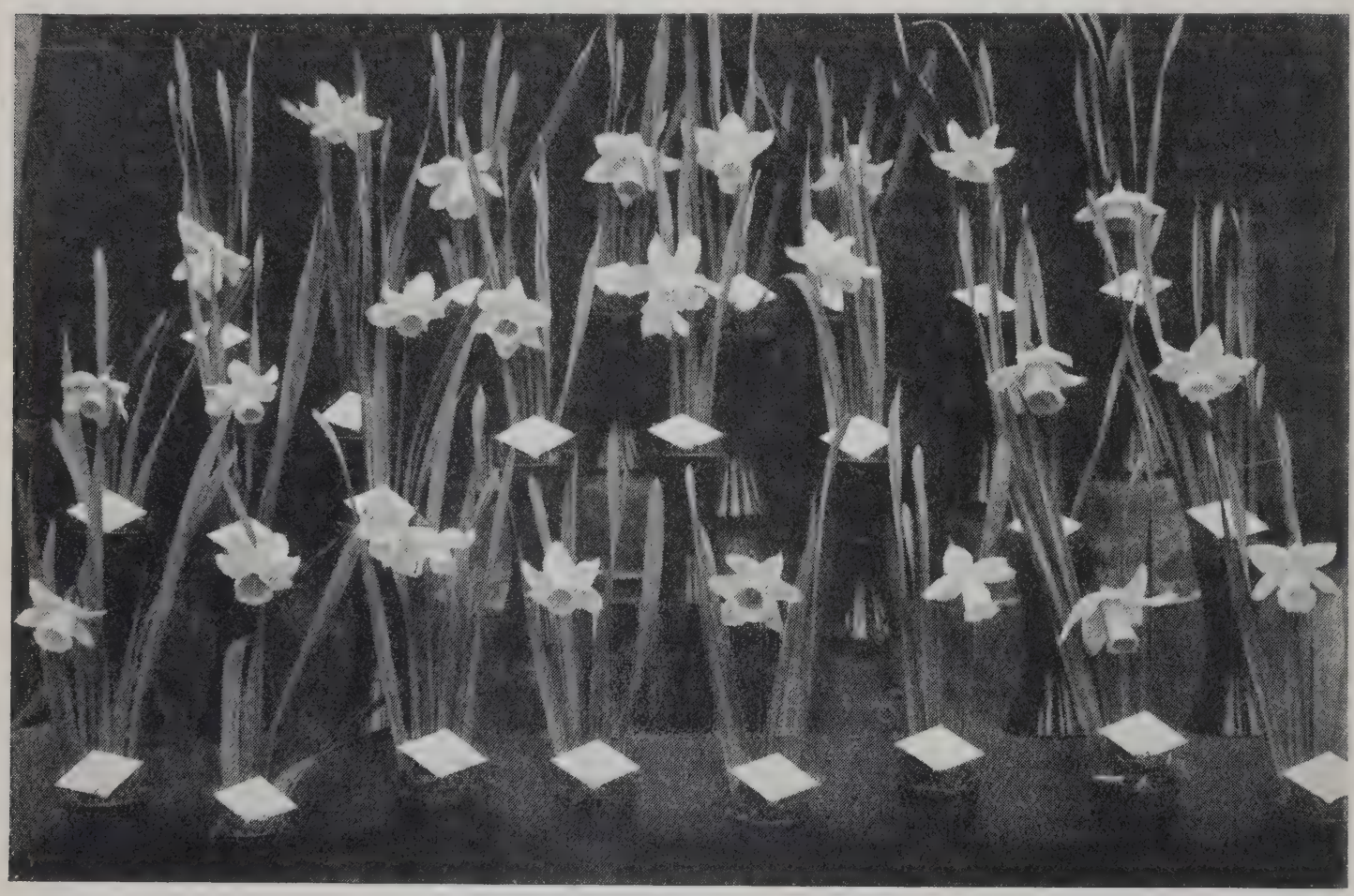
Pink Beauty.—This is, as Mr. Jacob says, "the pinkest thing shown so far." The trumpet is nice, and the perianth, though not up to the show standard, is at its best fairly good, and the flower is distinctly attractive. The trumpet is undoubtedly pink. I am well pleased to have acquired it. It is said to be a chance seedling from Apricot. This should be a progenitor of a new class. Its pollen is potent.

Prima Donna.—This flower arrests attention, as it is quite a new style. The maize-coloured perianth is very over-lapping, is perfectly rounded and very stiff. The cup is intense yellow at the bottom and is edged with a deep red, fairly broad band. Altogether the flower is of a brilliant appearance. Both the main bulb and offset sent me flowered.

Prince Fushima.—A most extraordinary flower, best described, I think, as a Will Scarlet "picked out with white," as there are bits of white on the edge of the scarlet cup.

Queen of Hearts.—A red cup of great merit and very pleasing. The perianth is pale primrose and spreads to about 3½ inches. The floral committee at Edgbaston asked to see it again, as the flowers shown were not at their best. As a distinctive flower of its kind I think it is well worthy of an award of merit.

Sheba.—This, Coronation and Prince Fushima, to my mind, were the flowers of the year at Edgbaston. The massive large red flat eye set on the large, spreading, solid white petals was the acme



MR. E. M. CROSFIELD'S EXHIBITION OF TRIANDRUS SEEDLINGS AT THE LAST BIRMINGHAM SHOW.

(*See page* 393.)

of this style of flower. Firetail ran it close, but, though itself a perfect flower, it had, to my eye, to give way in general attractiveness to Sheba.

Triandrus.—A pure white small trumpet of triandrus origin shown by Mr. Haydon at Edgbaston greatly attracted me. It was very thick in texture, with good perianth and sturdy, well-proportioned, short trumpet. If this could be prolonged and put on a long stem, the looked-for perfect white trumpet would have arrived.

Thora.—A short trumpet flower of good form, with a good perianth, the whole flower of a unique colour for a Daffodil and difficult to describe. I would suggest "pinky ecru."

Unique, from Mr. Bath, is a pink Apricot, and of a deeper pink than Pink Beauty, but not nearly so large a flower. Its pollen is potent.

White Star. — This beautiful white-petalled flower with its citron eye continues to hold its own, and has proved to be a magnificent "doer," as every offset flowers the first year after being planted out, and the flowers last as long as any other I know of, and keeps in good form to the very end.

A Giant Trumpet. — The deep orange yellow-coloured giant trumpet of Mr. Engleheart was a size larger than I have ever seen in trumpets. It is a shapely flower, and I wish I could have a dozen bulbs on a bank in my garden in a clump. The effect of colour would be "immense," as I understand the foliage is of a blue-green colour; but, alas! there is one bulb only, and it will be the next generation who will see what I have in my mind's eye. That there is an artistic use for these large flowers I am certain, and while some of these lay themselves out to be called "coarse," as compared to some delicately-formed Poeticus or incomparabilis, still, they will some day in the garden be distinctive features, apart from their individual magnificence.

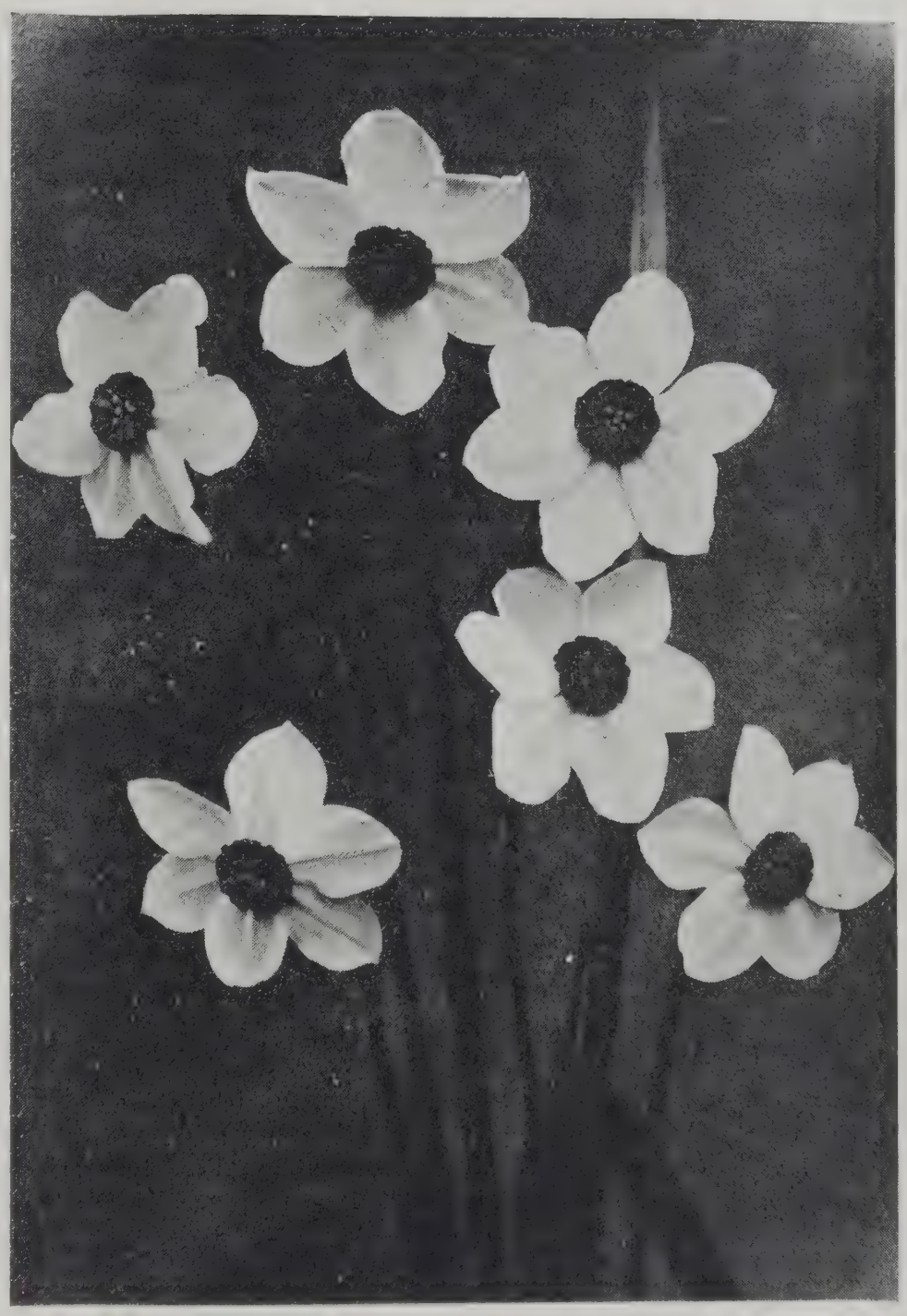
E. and C.—Someone showed a very fine flower under this designation at Edgbaston. It was a large flower with broad, clear white, very over-lapping perianth and a flattish yellow eye. To my mind it was very attractive free from stiffness, and the large size of the petals, not too flat, gave it a bold and effective appearance. It was specially interesting to me, as on my return to my "ditch" after the Midland Show I found a very similar maiden flower on a four year old seedling from Almira crossed with a small yellow flat cup seedling. This seedling, although a good flower, would have to take a back seat to E. and C., about which I feel convinced we shall hear more of in future.

C. LEMESLE ADAMS.

Pendeford Hall, near Wolverhampton.

MR. A. M. WILSON'S DAFFODIL FARM AT SHOVELL.

A SPLENDID stretch of land that easily lets at £4 an acre for agricultural purposes, situated on one of the lower slopes of the Quantock Hills, about eight miles from the sea and four from the town of Bridgwater; loose, friable soil with that peculiar buttery feeling when rubbed between the fingers which always indicates its suitability for Daffodil culture, from 4 feet to 6 feet deep; everything done in the way of cultivation that ingenuity and rich experience can suggest, viz., deep ploughing, digging, knocking about, surface hoeing and enriching; a thorough and painstaking head of affairs; these ingredients combined necessarily produce a home for Daffodils which is second to none in the British Isles.



THE NEW NARCISSUS ORMOLU SHOWN BY MR. A. M. WILSON AT BIRMINGHAM LAST APRIL.

When Mr. Wilson lived in Lincolnshire he was known as an excellent cultivator, and on the few occasions on which he entered in competitive classes he was invariably a prize-winner. I remember the year 1906, when he showed at Birmingham a Minnie Hume and a Virgil which were wonderful examples of good culture, easily securing premier prizes in their respective divisions. His trade exhibits of to-day have the same distinguishing features, and a visit to Shovell lets one into the secrets by which this is done.

"The farm" at the present time may be said to be divided into three parts, *i.e.*, the series of walled gardens close to the house, in which most of his very special and most expensive varieties are grown, such as Crœsus, Bernardino, Maud Muller, The Fawn, Geheimniss, the charming little red-edged Peter Pan, Fleet Wing, Buttercup and many other good things, both named and unnamed. One, No. 228, must be noted. It is a small Poet with a 2¼-inch perianth, round and symmetrical in shape, with a seven-eighths of an inch eye, the colouring of which is very unusual, viz., pale emerald green, shading to primrose, with a narrow pink edge.

Then, secondly, there is what I may term the "home farm," where the bulk of his stocks are to be found. Here, first of all, we come to a small enclosure where there is a second agglomeration of the very choicest varieties. One named Ecru (giant Leedsii) was pointed out on account of the extraordinary width of its foliage. I measured one of its leaves and found it to be 1⅝ inches wide. Passing through this we find ourselves in a large open field filled for the most part with broad patches of such Daffodils as Mme. de Graaff, Firebrand, King Alfred (2 feet high), Virgil, Epic and Lucifer, together with smaller blocks of more expensive ones, such as Pilgrim, White Slave, Victory and Circlet. A few Tulips are also to be found, relics of a past age, for Mr. Wilson practically gave them up when he left Lincolnshire. It is in this part that we get that wonderful deep rich mellow soil which Mr. Crosfield told me he thought was probably the best in the world for growing Daffodils.

The third part of Mr. Wilson's bulbs were grown on some stiffer land at a considerably higher level, and some little distance away from the rest. Here were a very large number of seedlings, more Tulips and stocks of various descriptions. I thought it a very wise precaution to secure this change of soil. It was another example of the thought and care which is given to the business. Before I pass on to the enumeration of a few particular specialities I must mention that Mr. Wilson is *not* wholly and solely a Daffodil man. He has the beginning of choice collections of shrubs and herbaceous plants and a splendid strain of rich deep crimson Polyanthuses.

Among the "good things" to be specially noted I would single out Buttercup, the first and most attractive of any Jonquil hybrid that I have come across. It is one of the flowers that I long to possess a lot of. A bunch in the drawing-room

at Llanarth, this spring captivated me, and now I have got a bulb or two. As it is a fast increaser and of a robust constitution, I hope it will not be very long before my wish is fulfilled. If I had a bottomless pocket, Mr. Wilson would not have many left to plant for another year. Cossack, a very beautiful Barri (3B in the 1910 classification), is an excellent exhibition flower. It has broad ivory white, overlapping segments and a shapely, deep crimson cup. It is a good doer, and is in every way a plant that I can recommend. Moonbeam is a pure all-white Leedsii; diameter of perianth 3½ inches, and of the cup about five-eighths of an inch. Substance and form combine to make this a flower of the greatest refinement and symmetry. Eoster is an ideal florists' flower, the counterpart of such things as Homespun, White Knight and Challenger in its respective class. Its defect, if such it is, is its small size. It is only 2½ inches, and the public wants 4 inches. It has a white perianth and a small canary cup.

Ethelbert is a flat-eyed variety of quite good form with an orange-tinted centre and broadly overlapping segments. Pilgrim is a fine exhibition Leedsii. The flower opens primrose-coloured, but becomes ivory white with age. Ormolu, a most attractive variety, is on the borderland of the Poets and incomparabilis. This also opens a pale lemon, which passes off to white. It has a pale red eye of an uncommon shade. I liked it immensely at Birmingham, where it obtained an award of merit. The illustration on page 394 is taken from Mr. Wilson's stand there. Radiant, which I have down in my notes as an improved and brighter Eyebright, is very charming, and should be in everyone's possession. Crœsus is probably the best red and yellow incomparabilis in existence. Although the price in early spring was about £3<, I see from Mr. Wilson's new list that he is "sold out," and as he holds the main stock, it is not very good news to those of us who are eagerly waiting for it to "come down." With the bare mention of such choice things as Hypatia, The Fawn, Snow King, Maud Müller, Bernardino, Ivorine, Beryl and Phantasy I must end. However, I think I have said enough to give readers an idea of this Daffodil paradise, of its owner, and of some of the floral treasures to be found there.

JOSEPH JACOB.

NARCISSUS HEROINE.

THE Narcissus illustrated on this page is a very "taking" flower—one that is bound to attract attention in whatever company it is placed. It is so fresh-looking, and the contrast between the broad white-pointed perianth and the rich red-edged yellow cup is so striking that few pass it by without making some eulogistic remark about it. It was introduced some years ago by Messrs. J. R. Pearson and Sons of Nottingham, and their description of it as a "giant form of the now well-known Albatross" is a very apt one, and conveys a good idea of what it is like. It received an award of merit at Birmingham this year. I think I am right in saying that in the garden it delights in a soil which is on the light side. Both for show and for decorative purposes I can confidently recommend it.

A. B.



THE NEW NARCISSUS HEROINE.

RAISING DAFFODILS FROM SEED.

HAVING some little experience in raising Daffodils from seed, the following notes may be of use to those who are beginners, or who may wish to begin to try their hands at what is one of the most fascinating of all gardening operations. First of all, a good selection of varieties to breed from is an all-important matter, and I think the following list will prove a good one for a beginner; the varieties named can all be bought at a reasonable rate:

Yellow Ajax: King Alfred, Lord Roberts and Monarch.

Bicolor Ajax: Weardale Perfection, Duke of Bedford and Victoria.

White Ajax: Mme. de Graaff and Florence.

Incomparabilis: Princess Mary, Mrs. Bowley and Marina.

Leedsii: Minnie Hume and Hon. Mrs. Barton.

Parvi (including flat cups): Beacon, Oriflamme, Circlet and Ethelbert.

Poeticus: Cassandra, Comus, Horace and Virgil.

The following rather more expensive sorts can be added to the above if the beginner is more ambitious, but the first list is quite a good one to start with:

Ajax: Cleopatra (yellow), Mrs. R. Sydenham (white) and Cygnet (bicolor).

Medii: Evangeline, Bernardino, Lemon Star and Moonbeam.

Parvi: Cossack, Occident and Red Chief.

Poets: Acme, Kestrel, Kingsley and Matthew Arnold.

In addition to these I should recommend one or two good triandrus hybrids; they do not, as a rule, seed, but they are useful as pollen parents.

I do not intend to go into the matter of how the cross-fertilisation of the flowers is effected, for it is set out at length in the Rev. J. Jacob's book entitled "Daffodils," and also in Messrs. Cartwright and Goodwin's pamphlet, "The Latest Hobby." I recommend all who are quite beginners to acquire these two publications. But there are one or two questions I have often been asked. One is, "What are the best weather conditions under which to carry out the operation of crossing the flowers?" The reply to that (from my experience) is that the state of the

weather is not so very important, so long as it is not bitterly cold, and even in the latter case I have had some results; but, for choice, I like a day on which the bees are out and about. Another question I am often asked is, "How long will pollen keep good, and how do you keep it?" I can say to that, that pollen can be kept good for quite a fortnight, and probably a little longer providing it is kept close (*i.e.*, in some air-tight receptacle). My own practice is to gather the anthers as soon as the bud shows signs of beginning to open, and then to lay them out, exposed to the air, on small pieces of tinfoil until the pollen comes up; they should then be folded up in the tinfoil so that the air is excluded. I then put them into small envelopes about 2 inches square, on which are written the names of the varieties and the date on which the anthers were gathered. Some people use small glass-topped boxes for the same purpose, but I rather think the pollen keeps better in the tinfoil, and the latter has the advantage of being more easily sent away by post if one wishes to exchange pollen with someone living at a distance. In reference to the exchange of pollen with others living at a distance, I may, perhaps, be allowed to quote a note I sent to THE GARDEN some time in 1905: "For the last three years various people have kindly sent me pollen of Narcissi for crossing purposes, and I have kept very careful records of the results, which for the three years are almost identical. The average number per cent. of flowers crossed with pollen from a distance that set seed exceeded that of flowers crossed with home pollen. Similarly, the average number of seeds per pod from the foreign pollen was higher than that from the home pollen."

There is also the advantage in an exchange that one can send one's friends pollen of varieties they do not possess, and *vice versa*. In my own case there is a further advantage, on account of the fact of my garden being situated in the North of Scotland, owing to which my earlier flowers are fully a fortnight or more later than the same flowers in the South of England, and three weeks to a month later than Cornwall. The result of this is that I can send pollen of early flowers to the South that will keep for a considerable time longer than the Southern growers could keep their own in good condition; and in return I get from the South later pollen that I can use on my earlier flowers, which pollen I could not otherwise obtain so early except by growing under glass.

Brodie Castle, Forres, N.B. BRODIE OF BRODIE.

DAFFODILS AT KEW.

A GREAT compliment was recently paid to British horticulture in an after-dinner speech by Mr. Pattison of Victoria, Australia. Mr. Pattison said: "Early this year I was in the South of France and enjoyed lovely spring weather there; later I went to Switzerland, and enjoyed spring there amid magnificent scenery. I came on to England, and paid a visit to Kew just when the Daffodils were at their best, and a more lovely sight I never wish to see."

COLOURED PLATE.

PLATE 1432.

FIVE NEW NARCISSI.

WHEN the Editor sent me an early proof of the coloured plate presented with this issue, I busied myself to think what was the connecting link between the varieties that are there illustrated. It was not their novelty, nor their conformity to an ideal florist type, nor their size. For some time I was unable to think what the Editor's intention could have been in singling out these particular flowers for reproduction. While in this uncertain state I chanced to look over my note-books of last spring, and I found that the very varieties pictured are those which for one reason or another had very often caught my eye. "I have it," I said to myself; "he has tried to bring together some particularly taking varieties; popular and general favourites that have everyone's good word, be they exhibitors or just lovers of beautiful things."

If ever a flower was appropriately named it is Fairy Queen, a small and exquisite Leedsii, almost a pure white. Fair Maiden is after the style of Seagull, but not quite so large. It has more pronounced colour in the cup, the centre of which is pale yellow and the margin orange. Mermaid will be recognised as one of the giant Leedsiis. This is a type of which I am very fond.

Unfortunately, the majority of them are expensive to buy, but the time will come when they will be as reasonable in price and as widely distributed as Emperor and Empress. White Queen, which is the pioneer of these beautiful silvery flowers, is a dwarf plant and not particularly well adapted for gardens. Mermaid in this respect is a great improvement. Its distinctive characteristic is its large bold crown, which is deeply flanged at the mouth, and which, opening a pale primrose, gradually fades with age into a creamy white. Cœur de Lion is a brilliant and yet a very harmonious flower of the new Barri section. When I saw it on Mr. Wilson's and Messrs. Barr's stands I noted it "very good." It has a real all orange red expanded cup and flat-pointed petals of deep primrose. Hamlet is one of the most taking yellow Ajaxes that we have. It nearly approaches a self. The tone is that of Captain Nelson, only it is a good many shades deeper. I am sorry to say that it never does very well with me, but that is no reason why it should not flourish elsewhere. I would advise all those who buy this lovely variety to begin by lifting it every year until they see how it is going to do. A single bulb of each of these five Daffodils would cost, according to Messrs. Barr's list, £1 17s. 11d. The Editor informs me that the flowers from which the coloured plate was prepared were kindly supplied by Messrs. Barr and Sons, the well-known firm of King Street, Covent Garden, London, W.C. J.



DAFFODILS NATURALISED IN GRASS AT KEW.

DAFFODILS IN POTS.

HAVING for the last three years grown a large collection of Daffodils for the March exhibition at the Royal Horticultural Society's Hall, I thought a few notes on the best varieties for the purpose might be of interest to readers of THE GARDEN. At the outset I would point out that it is no easy matter to get varieties, some of which flower naturally at the end of March and others which open as late as May, so "timed" that they shall be at their best at any given date, even though it be as late as the middle of March. The very early ones, such as Golden Spur, obvallaris and Henry Irving, will flower by that date if potted and flowered in a cold frame; the difficulty lies rather in keeping them back than in bringing them forward.

Daffodils, when grown in pots, do not always bloom in the same sequence which they follow when grown in the open, and these irregularities must be made note of and allowance made in succeeding years. Late varieties, such as Mme. de Graaff, J. B. M. Camm, White Lady and most of the Poets, should be potted early, say, the last week in August or the first week in September, and the plants must be brought into the greenhouse early in January if well-developed blooms are wanted by the middle of March. Early preparation of the late sorts is an absolute necessity, as any attempt at forcing them in a temperature above 60° will only be courting failure, for the flowers will be so small and lacking in substance as to be almost worthless from an exhibition point of view.

Now, setting aside flowers for exhibition, I will mention some of the varieties which have proved themselves of especial value as indoor plants. For earliest forcing I would place the old Telamonius plenus, which by early potting and careful forcing may be had in bloom soon after Christmas. This is not a flower admired by all, but it gives a bit of bright yellow and a good bulk of bloom when flowers are scarce. Henry Irving is very early and good, but is not quite as free-flowering as it might be. Golden Spur is the finest of all early yellows, being both early and very floriferous, good bulbs generally averaging two flowers each. Obvallaris is dainty, early and lasting, but is rather on the small side. Maximus, though not very free, is a grand flower, and in this district comes finer as a pot plant than it does in the open. It comes quite early, and the flowers have wonderful lasting qualities. Sir Watkin is good and free-flowering, but if forced the least bit too much it comes small and of no substance: It may be stated as an axiom that no short-cupped Daffodil will equal the early trumpet varieties for really early work. Many of them are excellent for March, but if brought on earlier they are small and have but little substance, and it takes a lot of them to fill a vase in house decoration.

Of those coming a little later than those before mentioned, Emperor is a grand variety. There is something really satisfying about a good potful of this noble Daffodil. I always say of Emperor and Mme. de Graaff that, taken all round as garden plants, they have not yet been beaten, though some of the newer varieties on the same lines are undoubtedly more telling on the exhibition table. Glory of Leiden is good as a pot plant, its dwarf sturdy habit and large blooms being two very good points in its favour. The somewhat stiff pose of the flower is not so noticeable when seen growing as it is when one tries to arrange the blooms in vases.

Of the bicolors I would place Victoria first. It is an ideal pot plant, and shows to much greater advantage than when grown in the open. Horsfieldii is free, but a little lacking in substance. I prefer Empress, though a little later. J. B. M. Camm is very late when grown indoors, but makes a beautiful show of delicate flowers when it does deign to expand them.

Among the short cups, Crown Prince is a great favourite of mine. It has such a clean-cut and bold look with it, while it is also a good lasting flower. Lucifer is very brilliant in colouring and very effective, but the bloom is rather weak, and if given a little too much heat goes as limp as a piece of rag. Firebrand is small, but makes such a grand spark of colour that it is well worth growing.

Of the Poets I have not tried to force many varieties. The old ornatus is always fine if good bulbs are used and the forcing is not too severe. Præcox grandiflorus is too small and starry for indoor work. Of the newer ones I think Homer is about the best. It comes flatter and with more substance than any I have tried. Chaucer gives a bit of bright colour, but the flower soon loses form. I hear good accounts of Horace as a forcer, but with me it has not come up to expectations. Blackwell (which ought to have been mentioned among the other red-cupped fraternity) is grand as a pot plant. It is naturally early, of faultless form, and has a very fine orange red cup. By the way, Gloria Mundi is no good at all for inside work.

Among the Leedsii group, Duchess of Westminster is good, and so are Fairy Queen and White Lady, though the latter is very late. A very cheap one, but by no means to be despised, is Mrs. Langtry. Opened under glass the flowers are very dainty and pretty, and, although of frail appearance, they last a long time. Some of the new Giant Leedsiis are good in pots, but their price is at present prohibitive for this work. I was nearly forgetting Leedsii M. M. de Graaff which is charming, though late and rather small but its lovely apricot-tinted cup gives a rare spot of colour which thus early in the year will be much appreciated. Later on, when coloured cups are plentiful, it may be overlooked among its newer rivals. Waterwitch is a very pure and graceful flower, but late. Seagull and Albatross are both good, Seagull being the more lasting flower of the two. Autocrat is one of the very best of the older incomps., and gives a lovely bit of pure yellow whether grown indoors or in the open. Of the more expensive varieties, Southern Star, Homespun, Circlet, Lord Roberts (grand), Cornelia, Mrs. James H. Veitch and Weardale Perfection are all good. Of the smaller Daffodils, W. P. Milner is excellent. The flowers, which are sulphur colour in the open, come quite white under glass. It makes charming pots, and is also first-rate when grown in fibre in small bowls. Queen of Spain is another dainty little thing, and the flowers last quite an extraordinary long time. Several of the still smaller kinds, such as triandrus albus, nanus and cyclamineus, are very dainty and interesting. These tiny ones show to far greater advantage when grown in shallow pans than in the usual deep-sided pots.

These notes have been penned entirely from memory, and I feel sure that many good things have been omitted; but I think sufficient have been named to satisfy most amateur growers. To my mind no bulbous plant is of greater value for growing in pots than the Daffodil; nothing is less trouble, and, if the cheaper varieties are employed, nothing is less expensive; while the flowers are always welcome, and no forced flower lasts longer. Daffodils are now forced by the thousand where they were formerly used by the dozen; but I believe the time to be not far off when they will be employed to a much greater extent than they are even at the present time, and their popularity as greenhouse plants will, no doubt, be much advanced by the annual exhibitions held each March by the Royal Horticultural Society, for when visitors to these shows see to what perfection and in what endless variety they may be had in bloom, while those outside are only just showing their foliage, they will surely be stirred up to try their skill at the forcing of Daffodils if they have never previously given it a thought.

Lowdham, Notts. J. DUNCAN PEARSON.



A NEW DUTCH DAFFODIL: WHITE GIANT.

DUTCH DAFFODILS.

GOLDEN JUBILEE AND WHITE GIANT.

THE popular impression about Dutch Daffodils is that they are large and coarse, and lacking in that refinement of texture and form which distinguishes English-raised flowers. Speaking in the most general way, this certainly was true of almost all of their early seedlings; but the nurserymen of Holland are quick to see the trend of things, and before very long they are sure to put themselves in line. To-day seedling-raising is going on there just as enthusiastically

and almost as largely as it is in the British Isles. Let me mention a few of the best-known flowers and their raisers: Fairy and all the older Poetaz, Van der Schoot; Van Waveren's Giant, Van Waveren; White Knight (the best florists' white trumpet), de Graaff; Whitewell, Polman-Mooy; Glory of Noordwijk, de Groot; Mme. de Graaff, de Graaff; and Miss Willmott, Van Tubergen. Mrs. H. J. Veitch, Olympia (a tip-top garden Ajax), Almira, Glory of Leiden, Lady of the Snows, Mrs. Robert Sydenham, Victoria and the whole of the Tazettas all come from the land below the sea. The two flowers Golden Jubilee and White Giant, of which illustrations are given on this and the previous pages, are two new varieties of great merit. The former, raised by de Graaff Brothers, is a seedling from Autocrat and Monarch, and was shown at the great Haarlem Show last year for the first time. From a strictly florist standpoint it is an ideal bloom, and would be classed as a rich yellow self giant incomparabilis. The other flower, White Giant, is an enormous pure white trumpet variety, and was raised by Messrs. E. H. Krelage and Son of Haarlem. It is one, and probably the best, of a series of splendid trumpets which this firm have lately exhibited in Holland, many of which gained awards at Haarlem either this season or last. J.

LISTS OF DAFFODILS FOR SHOW PURPOSES.

ARRANGED IN CLASSES ACCORDING TO THE ROYAL HORTICULTURAL SOCIETY'S 1910 SCHEME.

THE varieties which appear in the following lists range in value from a few pence to £5. As a rule, I have given both dear and cheap flowers in each one. Sometimes, as in Class 1B and Class 5, it has been almost impossible to do it, all the best flowers in them being on the expensive side. I have found it far more difficult to compile 2A and 3A than 2B and 3B. From this it may be taken that among the Medios good yellow-perianthed flowers are much scarcer than white-perianthed ones. This is an interesting fact. As many readers may not be familiar with the new classification, as it is called, I append it in full.

CLASSIFICATION OF THE NARCISSUS.

Division 1: Trumpet Daffodils.—Distinguishing character, trumpet or crown as long as, or longer than, the perianth segments. (*a*) Varieties with yellow or lemon coloured trumpets and perianth of same shade or lighter (but not white). (*b*) Varieties with white trumpet and perianth. (*c*) Bicolor varieties, *i.e.*, those having a white or whitish perianth and a yellow, lemon, or primrose trumpet.

Division 2: Incomparabilis.—Distinguishing character, cup or crown not less than one-third but less than equal to the length of the perianth segments. (*a*) Yellow shades, with or without red colouring on the cup. (*b*) Bicolor varieties with white or whitish perianth, and self-yellow, red-stained, or red cup.

Division 3: Barri (incorporating Burbidgei).—Distinguishing character, cup or crown less than one-third the length of the perianth segments. (*a*) Yellow shades, with or without red colouring on the cup. (*b*) Bicolor varieties with white or whitish perianth and self-yellow, red-stained, or red cup.

Division 4: Leedsii.—Distinguishing character, perianth white, and cup or crown white, cream, or citron, embracing all sizes as found in the incomparabilis and Barri classes.

Division 5: Triandrus hybrids.—All varieties obviously containing N. triandrus blood, such as Queen of Spain, Countess Grey, Eleanor Berkeley, Moonstone, Agnes Harvey, &c.

Division 6: Cyclamineus hybrids.

Division 7: Jonquilla hybrids.—All varieties of N. Jonquilla parentage, such as Buttercup, odorus, &c.

Division 8: Tazetta and Tazetta hybrids.—To include N. Tridymus, Poetaz varieties, the Dutch varieties of Polyanthus Narcissus, N. biflorus, N. Muzart and N. intermedius.

Division 9: Poeticus varieties.

Division 10: Double varieties.

Division 11: Various.—To include N. Bulbocodium, N. cyclamineus, N. triandrus, N. juncifolius, N. gracilis, N. Jonquilla, N. Tazetta (species), N. viridiflorus, &c.

1A.

Alert	Outpost
Cleopatra	Monarch
Cornelia	Mrs. H. J. Veitch
Goldfinch	Leiden Jar
Goldseeker	Rev. R. D. Williamson
Hamlet	Lord Roberts
King Alfred	Rising Sun
King's Norton	Van Waveren's Giant.
Mervyn	

1B.

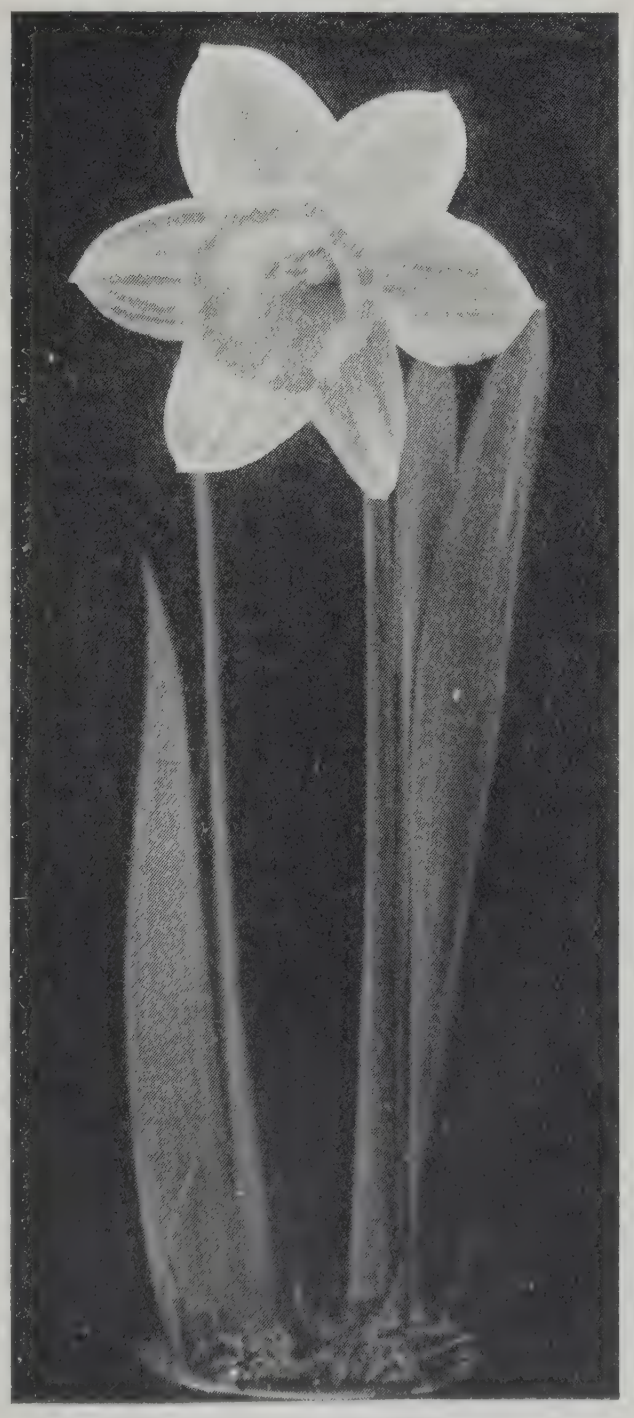
Ailsa	Mrs Betteridge
Alice Knights	Mrs. G. H. Barr
Florence Pearson	Mrs. R. Sydenham
Lady of the Snows	Peter Barr
Lady Audrey	Princess
Loveliness	Treasure Trove.
Mme. de Graaff	

1C.

Apricot	Judge Bird
Coronet	Miles Standish
Cygnet	Queen Emma
Duke of Bedford	Waxwing
Glory of Noordwijk	Weardale Perfection
J. B. M. Camm	William B. Hartland.

2A.—INCOMPARABILIS (YELLOW SHADES).

Autocrat	Lemon Queen
Blackwell	Pure Gold
Elegance	Noble
Flambeau	Marguerite Durand
Homespun	Solfaterre
Gannet	Tita
Giraffe	Ursula
Gloria Mundi	Wonderland.



NARCISSUS GOLDEN JUBILEE.

2B.—INCOMPARABILIS (BICOLOR).

Amber	Charles
Bernardino	Constellation
Brigadier	Diadem
Chaffinch	Fleetwing
Countess of Southesk	Great Warley
Heroine	Pedestal
Lucifer	Pilgrim
Magpie	Scarletta
Lady Margaret Boscawen	Whitewell
Princess Mary	Victory.
Orangeman	

3A.—BARRI (YELLOW SHADES).

Beacon	Occident
Castile	Northern Light
Cœur de Lion	Stonechat
Concord	Salamander
Fusilier	Watchfire
Glitter	Yellow Poet.
Joan of Arc	

3B.—BARRI (BICOLOR).

Armorel	Harold Fenn
Branston	Incognita
Bullfinch	King of Poets
Circlet	Queen of Scots
Cossack	Red Chief
Crown Prince	Radiant
Eyebright	Red Beacon
Ethelbert	Sunrise
Fair Maiden	Southern Star.

4.—LEEDSII.

Evangeline	Mermaid
Diana	Moonbeam
Eoster	Penguin
Fairy Queen	Mrs. W. O. Wolseley
Hon. Mrs. J. L. Francklin	White Queen
Hypatia	White Lady
Ivorine	White Slave
Janet Image	Venus.

5.—TRIANDRUS HYBRIDS.

Agnes Harvey	Eileen Mitchell
Alabaster	Lela
Cingalee	Moonstone
Countess Grey	Maid Monica
Dorothy Kingsmill	Marie Hall
J. T. Bennett-Poe	White Witch.

8.—TAZETTA AND TAZETTA HYBRIDS.

Aspasia	Irene
Cloth of Gold	Lucia
Elvira	Orient
Jaune à Merveille	Sunset.

9.—POETICUS.

Acme	Lullaby
Cassandra	Matthew Arnold
Comus	Rudyard Kipling
Homer	Socrates
Horace	Tennyson
Kestrel	Virgil
Kingsley	Walt Whitman.

10.—DOUBLE VARIETIES.

Argent	Inglescombe
Apricot Phœnix	Plenipo
Dubloon	Red and Gold
Cernuus plenus	Sulphur Phœnix
Orange Phœnix	Royal Sovereign.

In carefully going over 1912 dealers' lists, I notice that in several cases the pigeon-holing of the Royal Horticultural Society's list has not been followed. I regret this exceedingly, as it may lead to confusion on the tables. May I impress upon all show committees the necessity of following it implicitly, even if a mistake has been made in assigning a flower to its proper class. I am well aware this has happened more than once. It could hardly be otherwise in a task of such magnitude. JOSEPH JACOB.

THE HYBRIDISING OF NARCISSI.

EXPERIENCES AND SUGGESTIONS.

A CORRESPONDENT of mine writes that he has made 500 different crosses among Narcissi this year, but I am not sure that in the multitude of crosses there is wisdom. It is interesting from an experimental point of view; but I am rather inclined to think, from experience gained, that success lies more in the quantity of seed obtained (and seedlings reared) from *good crosses*, *i.e.*, crosses that habitually throw a large percentage of fine flowers, such, for instance, as Princess Mary × Poeticus. The raiser who has good fortune in this latter respect is, in my opinion, more likely to be the man whose flowers will stand well in competition in seedling classes at the shows and whose productions will gain a name for him. A veteran raiser, whose

name all lovers of Narcissi would recognise, once told me, "I stick to good stock and don't go trying about all over the place," and this remark illustrates in a way what I mean.

What a wonderful seed parent Princess Mary is comes home to me more and more every season. Several of us were making an analysis of the winning flowers in the single bloom classes at the Birmingham Show, and the ancestral influence of Princess Mary was most strongly apparent. A celebrated raiser even went so far as to declare that if he began again he would never use any other flower but Princess Mary as a seed parent. There is no rule without its exception, and where I would make an exception and have more promiscuous crossing would perhaps be where triandrus hybrids are concerned. People seem to have gone along one line in the production of triandrus hybrids. Those one sees exhibited, as a rule, are either the result of trumpets such as Emperor, Weardale Perfection or Mme. de Graaff, crossed triandrus, or Minnie Hume × triandrus. The result is that when, as in the case of the Walter Ware Cup at Birmingham, a class is arranged for triandrus hybrids alone, though all the flowers are delicate and lovely, there is a certain monotony. With the object of relieving this monotony, fresh ground should be broken, and raisers might legitimately seek fresh fields and pastures new.

The illustration is of a flower resulting from a cross between Firebrand (seed) and triandrus calathinus (pollen), and the flower may be said to be unique, being a sort of drooping two-flowered incomparabilis, with crown of citron yellow and slightly reflexing white perianth. Other combinations of this sort will occur to the versatile man, but I fear we shall never get a triandrus hybrid with rich colour, *i.e.*, shades of red or orange. So far as my experience of triandrus goes, it white-washes everything, even the most vividly-coloured flowers of the Parvi section. This is, of course, compensated by that delightful waxy texture which in almost all cases it imparts to its offspring.

Turning again to the subject of what I have called "good" crosses, the value of M. J. Berkeley is coming to be more and more evident to those of us who have habitually used it. Allied with Poeticus and other flowers of rich colouring, it has given me several very fine seedlings. Ill-proportioned as it undoubtedly is, curiously enough it seems to have more valuable inherent qualities than the better-balanced Emperor and others of that calibre. There is another flower I must speak of, viz., Will Scarlett. Much advice has been repeatedly given against the using of this variety for hybridising, and several who have not had practical experience of its use have rushed into print to warn the raiser of its bad breeding qualities, warnings which the writer has always refused to take. I was confident from the first that, if used in conjunction with flowers of the very best form, Will Scarlett would be of use to the hybridist, and my confidence has been eminently justified this season, as I have had the good fortune to flower several seedlings from it which have satisfied not only myself, but very prominent florists and men who understood what they were looking at. F. HERBERT CHAPMAN.



AN UNNAMED NARCISSUS OBTAINED BY CROSSING FIREBRAND AND TRIANDRUS CALATHINUS.

THE TOWN GARDEN.

THE DAFFODIL.—It is but fitting in these times, seeing that the Daffodil has during recent years become so popular with all classes of gardening folk, that some mention should be made of it in this column for the benefit of town and suburban dwellers. It is the more important at the moment and in an issue devoting much space to the varying phases and aspects of the flower—a flower which has become the idol of the few, the admired of many, and the delight of all. That is tantamount to saying that in the hundreds of varieties now catalogued there is enough for all: varieties that will satisfy the most critical and fastidious of Daffodil fanciers; varieties that will satisfy equally those whose tastes or fancies are less exacting; and varieties, still—and their name is legion—that will afford pleasure and delight beyond compare to the cottager or artisan who, untutored in the art, sees and appreciates beauty in every flower that blows.

WHERE TO PLANT.—The Daffodil, more because it is a plant of a bulbous nature than aught else, is almost invariably planted in beds that in early summer will naturally be required for the summer-bedding arrangements. That is an initial mistake, so to speak, the obvious outcome of lack of knowledge, and doubly so the failure to appreciate this important fact, viz., that the Daffodil as a permanently-planted subject has a value far greater than any bulbous plant of my acquaintance for British gardens. Hence to plant it wholly in beds early required for other things, which involves the lifting of the bulbs long before the foliage has matured, is not only an error of a fundamental character, but is so weakening in its after-effects upon the bulbs that the procedure is in large degree responsible for poor displays often seen in borders.

THE THING TO DO in such a case is to arrange matters accordingly, and by working to a prearranged plan, mental or otherwise, ensure the greater success the permanently-planted bulbs afford. The Daffodil takes a longer time to mature than some other bulbous plants; hence a more tender crop should follow it in the beds for a summer display. Then, if in conjunction with such an arrangement a deeper planting were indulged in, placing the bulbs 6 inches or even 8 inches deep in the earth, a light forking up of the surface soil to freshen it for the summer crop would be both possible and easy. As a plant to follow the Daffodil on these lines the tuberous Begonia has no equal, being easily managed and readily transplanted. For work of this kind, strong growers, such as Sir Watkin, Emperor and Empress, are all valuable, and they may be planted alone or interspersed with ornatus or some of the paler sorts of single incomparabilis. So good a yellow self as Golden Spur and so fine a bicolor as Victoria deserve special mention, and it is doubtful if in decoration the twain could be surpassed.

IN MOISTURE OR PARTIAL SHADE many Daffodils have a value of their own, the varieties whose "cups" or "eyes" are brilliantly coloured being rarely seen in good condition in full sun. In quite moist or even wet soils the popular varieties above named are excellent, and increase in vigour each year. This to the amateur is an important matter, since too often these and similar places are ignored. The varieties of Poeticus, too, delight in a soil that is constantly cool or uniformly moist, and a greasy clay—a clay of the consistency of a fairly-matured Cheddar cheese—is much more to their likingthan it is to the gardener whose duty it is to till it.

HOW AND WHEN TO PLANT.—Get all planting done by the end of September, or mid-October at the latest, and the earlier the better. Dig the ground deeply and liberally manure it low down. The Daffodil delights in enriched soils, but resents the manure-heap. Do not plant a dozen bulbs in a hole 6 inches across. A better size for all the trumpet Daffodils would be one whose diameter was 18 inches for the number named. This distance permits of bulb development. S. N. N.

GARDENING FOR BEGINNERS.

PLANTING DAFFODILS IN GRASS.

THROUGH the persistent efforts of a few good gardeners, who in the past seemed to see farther ahead than most of their fellows, we, the gardeners of to-day, are reaping the results of what they have sown, and the naturalisation of Daffodils and other bulbous subjects is now much better understood.



1.—HOLES WITH DAFFODIL BULBS READY FOR COVERING.

Interesting and beautiful as the Daffodils are when planted in masses in beds and borders, there is a way of utilising these bulbs that is incomparable with the older and more orthodox way of planting this subject.

There are growers who say that unless the turf be broken up before it is replaced over the bulbs, the stronger-growing Daffodils may lift it bodily as they evolve their young, vigorous growth. I am disposed to reply that a great deal depends on the manner in which the actual planting and covering of the bulbs is done. If an unduly thick layer of turf be cut when the preparations for planting are being made, and replaced over the bulbs just as it is, there may be some reason for the statement; but, assuming common-sense will be observed and a thin layer of turf cut in the first instance, and this replaced in proper form and with care, there surely is no reason why the results should not be quite satisfactory. In the present instance, a method that has been adopted with considerable success is illustrated, and so that the would-be grower may fully appreciate its worth, I will explain it in detail.

First of all, I would remind the reader that it is the common practice in some localities to obtain much the same results by more simple means. The turf is never lifted; instead, what is known as a turf punch is used. By the use of this implement it is possible to make holes that are each large enough to accommodate two or three large bulbs, or half-a-dozen smaller bulbs; but there are few Daffodils sufficiently small that it is possible to accommodate so many as six bulbs in one hole; such bulbs would not be much larger than those of ordinary Snowdrops. This turf punch may be used advantageously in meadows where the grass is soft and springy, and where an impression is easily made. Small holes may be cut out to accommodate the required number of bulbs, and in order to make this easy to understand, a series of holes with the bulbs in position is shown. A careful scrutiny will reveal the fact that the bulbs are planted round the sides of the holes equidistant from each other, and when adjusted in this manner, but deeper than shown in the illustration, the holes filled in with soil, and the small piece of turf replaced in position, they seldom or never lift the turf. Cut the series of holes in groups of irregular and natural outline, so that there may be nothing to spoil the picture when the blossoms develop. Fig. 2, and also the illustration on page 397, are good examples of what can be achieved by this system of planting Daffodils. The beginner will be careful to note that the natural beauty of the subject is enhanced by the irregular outline adopted in the system of planting observed in these instances. The Daffodils may be planted forthwith, and the earlier this work is done the better will be the ultimate results. D. B. CRANE.

BENDING DOWN ONIONS.

MANY cultivators of Onions put much faith in the bending down of the tops of these plants as a means of securing large bulbs with small "necks." No doubt the judicious bending of the stems does have some effect, but if the work be done without very careful thought, more harm than good will result. For instance, if strong stems be forcibly bent over, some of the inside layers will be snapped off, and then young stems grow again from the centre. This means ruin to the bulb, as the latter will again commence to form young roots and the outer layers of the bulb will split. Inexperienced cultivators should wait until the swelling of the stems ceases and the outer covering begins to shrivel a little; then carefully bend over all such stems, and the work can be done without any bruising of the interior part of the stems. The result will be that the stem or neck just above the bulb will lessen gradually in thickness, while the bulb itself will swell rapidly. The Onions may be watered when necessary, and also fed, until the bulbs may be readily lifted from the soil. When the latter stage is reached, all watering and feeding must cease, and in a fortnight's time the harvesting of the bulbs will be advisable. SHAMROCK.

HOW TO TRIM HEDGES.

THIS may seem, even to the inexperienced person, a very simple operation. However, it is not an easy matter to trim a hedge in a proper way unless the workman has had some practical experience. A well-kept hedge which encloses or divides a garden is sure to improve the general appearance of the latter, and a badly-kept one to detract from its good appearance. A well-balanced hedge should be rather wider at the bottom than at the top. Example: If it be 18 inches wide at the base, it should be 12 inches wide at the top; a gradual cutting away of 3 inches on each side. Unless required for some particular purpose, the hedge must not be of unusual height. A good average height is 4 feet 6 inches for boundary hedges and 3 feet 6 inches for divisional ones. The branches on both sides must almost touch the ground. There is a tendency on the part of some persons to "under-cut" the hedge, that is, to cut away some of the lowest branches nearer to the main stems than those about 1 foot higher up. When this is done, the regular sloping side of the hedge is broken and it has a bulging appearance. When the final height of a new hedge is being determined, the workman may use a garden line so as to be sure that the top is perfectly level. On subsequent occasions, when the hedge is trimmed, the harder wood will act as a guide as to how hard back the youngest shoots must be cut. The frequent trimming of such hedges as those of Thorn and Privet tends to secure a dense, well-filled surface. Use shears, not the tool generally termed the "brushing-hook." B.



2.—DAFFODILS NATURALISED IN GRASS UNDER TREES

THE CULTIVATION OF NARCISSI IN THE ISLE OF ANGLESEY.

At a meeting of the Anglesey Industries Association some ten years ago, the subject of bulb culture in Anglesey was introduced by Lady Boston. No steps were taken until the year 1907, when a small trial was made with some 6,000 bulbs of the common varieties in commerce, such as Emperor, Empress, Horsfieldii, Mrs. Langtry, Sir Watkin, princeps, ornatus and Cynosure. The opinion of Mr. Robert Sydenham was asked, and he very kindly visited the island and inspected the soil and conditions in various parts. He saw the few bulbs lifted, and advised a further cautious trial, which was made in 1908. Some 300,000 bulbs were planted, chiefly at Lligwy, Bodedern, Baron Hill and Llanfair P.G. A small syndicate was formed to carry on experiments near Llanfair P.G., and about an acre of land was rented for the purpose.

I will confine my remarks chiefly to these experiments. In 1908 about 100,000 Narcissi were planted by the syndicate. The result was so satisfactory that it was decided to extend the cultivation, and in 1909 about one and three-quarter acres were planted. These were lifted in 1910, and all marketable bulbs were sold and commanded high prices. In 1910 the area planted was again extended, and nearly three acres were planted with over 120 varieties. As I am writing, these bulbs are all in trays in the storehouse, and it would not be easy to equal them in quality and hardness, although it is possible that larger bulbs may be grown in Holland and elsewhere. They are absolutely free from disease, although some have been grown on the same land for three successive seasons. The increase has been quite up to the average in other places, so far as I have been able to learn. I have this season sent up samples of Barri conspicuus grown from last year's chips which are equal to any firsts on the market. Other varieties are equally good, and from what experts tell me I do not suppose better stuff can be grown.

This year the experimental stage is considered over, and the syndicate has been formed into a company under the name of The Anglesey Bulb-growers' Association, Limited, with a fully paid up capital of £1,000. A small farm of twenty-five acres has been rented close to Llanfair P.G. Station, and it is hoped that some six acres of Narcissi may be planted. The soil and climate of Anglesey seem to be ideal for the cultivation of Narcissi. There are thousands of acres quite as suitable as the few acres at present used for the purpose. I am not an expert on the subject, never having grown a bulb in my life until four years ago; but I have a considerable experience in horticulture and agriculture generally. That with no knowledge of the subject we have been able, with an ex-navvy as foreman and ordinary agricultural labourers to dig, lift and plant, to produce stuff which is second to none on the market speaks volumes for the soil and climate of Anglesey. They are both ideal for this industry. We have had planting bulbs from Holland, from Devonshire, from Lincolnshire and from various other places; but none I have seen come up to the quality of our own home-grown bulbs.

That Mr. Robert Sydenham—a most careful and particular buyer—should be so pleased with our bulbs as to give us top price for all we can grow, I think confirms this view.

We can compete successfully in the cut-flower trade. This year we sold nearly £80 worth of bloom from less than three acres, and a large part of that was planted with very small chips. Henry Irving and Golden Spur were marketed on March 6, and the flower season ended on May 9. Lifting the bulbs commenced on June 8, and was finished, except one or two small lots, on July 12. We commenced planting on June 17, and hope to finish in August. All the Poeticus varieties are planted as soon as possible after lifting. Our land is trenched about 2 feet 6 inches deep before we plant. It is then thrown out into 3-feet beds and forked over with a *new* fork. I emphasise that, as it means 3 inches or 4 inches and often more of extra cultivation. We use nothing but basic slag and bone-meal as manures, 4cwt. of the former and 10cwt. of the latter per acre. Land which has been trenched as above does not require trenching again for some years; deep forking is quite sufficient. We do all our cultivation with forks; they break up the land far better than spades.



ALLWOOD'S SUPPORT FOR DAFFODILS.

After planting we use the "Buco" Cultivator for scratching over the surface. I consider it has no equal for the purpose. A Dutch hoe is only allowed in the alleys, which are 12 inches wide. The "Buco" is used about every tenth day when the weather permits. The surface is never allowed to get caked. Cultivation ceases when the bulbs begin to show bloom, but commences again directly the flower crop is cut. Hand weeding is not often resorted to, as the "Buco" keeps down weeds if used at the proper times and often. Another tool we find most useful is the "Cuma" Cultivator. It is quite a small tool, and is most useful when hand weeding is necessary. Both of these are Canadian tools. Sometimes after weeks of wet weather and heavy sea fogs, with a muggy, warm atmosphere such as we get in the winter here, it is not possible to get on the land to cultivate, and weeds get ahead. On the other hand, after land has been trenched we can get on it almost at once after a heavy fall of rain. The subsoil is a very damp one, but water does not lodge. I was much struck when lifting Mme. de Graaff and Weardale Perfection after a seven weeks' drought this year that I was able to squeeze moisture out of the soil adhering to the roots. In March this year, after a very wet winter, finishing with twenty-four hours' downpour about the 10th, I was able in a few hours to prepare my Onion-beds and sow them the same day. I think this adaptability of the soil accounts in a large measure, coupled with the damp subsoil, for the wonderful growth Narcissi make. Any horticulturist knows the enormous advantage there is in having land he can cultivate on almost any day of the year. On my little place here we have had but one day's rain and a few light showers from the middle of April to date. Of course, some plants have suffered, but it cannot be said they have done so to any great extent. The surface is continually cultivated with the "Buco" and a "Plant Junior" wheel hoe and cultivator. I mention these details because I believe they account largely for Narcissi finding Anglesey such a congenial home. I may be of too sanguine a nature, but I believe thoroughly that the English market can be entirely supplied with Narcissi grown in Anglesey, and the huge sums which yearly go to the Dutch may be diverted to this island. We have the soil, the climate and the market. Who will supply the capital and the enterprise? A short paper on the cultivation of Narcissi in Anglesey from a commercial point of view will appear in an early edition of "Co-operation." R. STAPLETON-COTTON.

A GOOD SUPPORT FOR DAFFODILS IN POTS.

TIME-SAVING things will always have a value for busy people. The strenuous person likes to make the most of life. With these obvious truths let me introduce to notice one of the best things it has been my fortune to come across for tying up Daffodils in pots. The "supports" (Allwood's

Patent) originally came to me for Carnations, but it soon occurred to me that here was the very thing for Daffodils. I tried them and they worked splendidly. The advantages were (1) the saving of time; (2) the neatness of the central and only stick necessary to hold them. The disadvantages were (1) I did not like the look of the galvanised wire, so I painted them a nice sage green; and (2) that I could not alter their size without many breakages, so I suggested to the patentees that if they could be made in three sizes it would enhance their value very much. This has been done, and I am now looking forward to having my 200 or 300 pots staked in about a quarter of the time that it has previously taken, and to their having, when done, as neat an appearance as it is possible to get with plants grown under such conditions. The illustration on page 402 shows too neat a potful to please some people. The remedy is simple, "only use one wire." This will certainly give or allow a more natural disposition of the foliage. J.

HOW TO GROW DAFFODILS IN FIBRE.

IT seems strange to think of spring and the Daffodils, which are its attendants, when we are rejoicing in the wealth of midsummer bloom; but it is only by so doing that we can hope to meet with the fullest measure of success. All bulbs need a long period of growth, and the more roots there are formed, the finer will be the flowers that are produced. Then, again, if bulbs are kept a long time out of the ground they are apt to become dry, and so deteriorate. I always endeavour to begin potting some bulbs as early as I can procure them, from the middle of August onwards, and the main batch are put in about the first or second week in September. If any are needed for a later display, it is better to put them in almost as early as the others, and retard them when they have begun to shoot by keeping them in as cold a place as possible.

Daffodils can be grown in any kind of receptacle, from the expensive china bowl to the ordinary jam-pot; and as bulbs can be bought now so cheaply, it is a pleasure that is within the reach of the humblest gardener. I prefer the blue and white china bowls, which cost from about 6d. for the smaller sizes, increasing in price for the larger ones, or the plain green vases, which can be obtained from Mr. Robert Sydenham; but I often grow mine in plain glass jam-jars, as it is so interesting to watch the development of the roots. Later on the jar can be placed in a fancy pot, or the contents bodily transferred to another one.

In my humble opinion, one of the chief essentials to success in growing bulbs in this way is the provision of good drainage. When we grow plants of any kind in ordinary flower-pots, the surplus water is able to drain away through the holes; but even then we place crocks and other material to ensure that the soil does not become sodden. As there is no outlet for the water in the china pot, I always provide a layer of small lumps of charcoal at the bottom, so that any surplus water collects there and the peat or fibre does not become sodden and so cause the bulb to rot; the charcoal also serves to keep the water sweet. Daffodils are moisture-loving plants, and when they are growing require a good supply, but they must not be given too much until the roots are well formed and able to absorb it. The materials required, then, are charcoal, peat-moss fibre or Cocoanut fibre and oyster-shell.

The method of planting is as follows: Get a large receptacle or pan in which the fibre and shell can be thoroughly mixed, allowing about 6lb. or 7lb. of oyster-shell to a bushel of fibre, and mix it well with the hands, rubbing it so that no lumps are left. Then add water by degrees, turning it over until the whole is thoroughly moistened, so that when it is squeezed in the hand no surplus water runs out. Then take the bowl, place therein a layer of charcoal, and then the moistened fibre to about half the depth of the pot; then place the bulbs on this, gently pressing them down and putting them so that they do not touch one another. Fill up all the intervening spaces, just pushing the fibre down with the finger, and cover the bulbs to within half an inch of the top of the bowl, but do not press the fibre hard or make it very firm, or the roots when growing will push the bulb out of the pot. When the bulbs are potted they will need no further attention for a fortnight or three weeks, and then just examine them at intervals of a few days to see that the fibre does not become dry. If it should begin to dry at the top, water them carefully, and if they seem too moist turn the pots on their sides to drain away any superfluous water. If the weather is warm and dry they will need more frequent watering; but if it is damp or frosty they do not need so much, and in times of severe frost it is best to keep them on the dry side, as then they are not so apt to get frozen.

I do not find it necessary to keep the bowls in the dark, and on no account must they be kept in a close, confined cupboard. I place mine on shelves in a disused room at the top of the house, where they are shaded from the direct light, until they are well rooted; then when the shoots begin to appear they are gradually put into the light and brought on in batches by being grown in a sunny window close to the glass, so that they do not become tall and drawn. If the weather is cold and frosty, take them away from the window at night, or place newspapers between them and the glass; the worst that can happen is for them to be retarded a little. I believe that when they are well rooted and the foliage well up they can be gently forced by putting them into slight heat; but I find that unless great care is taken they are liable to go "blind." I have grown Daffodils, Narcissi and many other kinds of bulbs in this way for more than ten years, and I have hardly ever had a failure.

Nearly all kinds of Daffodils and Narcissi can be grown in this way; but I will give the names of some that I know by experience will give good results. The Paper-White Narcissus may be had in bloom by Christmas by planting early, and other Polyanthus Narcissi are French Monarque and Mont Cenis. Of Daffodils (trumpet varieties) the earliest are Obvallaris and Golden Spur, both of which do well; other later ones are princeps (one of the most moderate in price), Emperor, Empress, Victoria and J. B. M. Camm. Of the Leedsii section I can recommend M. Magdalene de Graaff and Mrs. Langtry, the latter especially, as it is very floriferous and always does well. In the Barrii section, Barrii conspicuus heads the list, both as to size and price, and others are Leonie and Sir Watkin. The Poeticus also always do well, and some of the cheaper varieties are ornatus, Poetarum and Almira, and also the newer Poetaz hybrids, such as Alsace, Elvira and Irene.

(Mrs.) C. M. HANCOCK.

Hurst Green, Sussex.

DISEASES AND ENEMIES OF THE DAFFODIL.

AS supplementary to what may be found in such books as the Rev. S. E. Bourne's "Book of the Daffodil" or the Rev. Joseph Jacob's "Daffodils," the following notes of his own observations have been communicated by Mr. W. F. M. Copeland, who is known as a very successful raiser of doubles and giant Leedsiis.—ED.

Mersdon equestris (*the Narcissus Fly*).—The fly lays its eggs at the point where the leaves emerge from the ground. They are believed to hatch almost immediately, and the tiny grub finds its way as speedily as possible to the base of the bulb, where it commences its boring operations, though on rare occasions it will start at the side. However, it makes, sooner or later, for the heart of the bulb. So long as it is alive it contrives to keep the entrance door open. The fly seems to lay its eggs somewhat late in the flowering season, or even after the Daffodils have flowered. Towards the end of January and in February the grub will emerge from the bulb and come within half an inch of the surface of the soil, where it turns into a chrysalis a few inches away from the destroyed bulb. Preventive measures are as follows: Thoroughly hoe the ground in January and February; the chrysalis may possibly be turned up to the surface and killed. The flies may sometimes be caught with a butterfly-net. If the Daffodils are lifted as soon as possible after some of the upper part of the foliage has gone yellow and the bulbs thoroughly dried, the lifting process will probably be completed before the little grubs have had time to commence operations, or, if they have done so, the drying will kill them. When planting bulbs that are suspected, a careful examination will always reveal the hole in the base, or a squeeze betray a strange softness in the bulb, or an absence of any commencement of growth about the roots (if planting late only) would show that something is wrong. Too much cannot be said to warn readers concerning this pest. If it once gets into a garden it is very hard to get rid of, unless every bulb is dug up. Each fly will lay about sixteen eggs a year, though, curiously enough, it will generally do so within a couple of yards of the bulb it emerged from.

Slugs.—A small quantity of soot scattered over the bed and dug in when the bed is being prepared will check these pests, as well as a liberal dressing of wood-ashes in February, which is about the time the slugs commence operations.

Basal Rot.—This disease is only very occasionally met with. A very cold and wet summer, when the ground should be naturally getting dry and warm, will cause some varieties to fall victims. Too much and too strong manure close to the bulb will also cause the disease, or soil that has not been double-trenched and is sour or too clayey, where the water cannot get away. See that the ground is properly dug and correctly manured, and a good position selected, and you will seldom be troubled with basal rot.

Rust.—This is a sort of brown reddish, rust-like fungus that attacks the foliage of Daffodils as soon as they have attained some considerable height. It begins at the tips and works rapidly down, sometimes in streaks, giving a casual observer the idea that the foliage is naturally dying back. It is a fungus and spreads rapidly, and if left unchecked will, in about a fortnight, cause the foliage to die off, this being most disastrous for the bulbs, because, though the next year they may not be affected by the disease, yet they will be very weak and produce few, if any, blooms.

The cause of this trouble is rainy and moist weather and over-damp situations. The cure is as follows: Get a chemist to make up in a glass-stoppered bottle 1oz. of carbonate of copper dissolved in 130z. of crude commercial ammonia. Take one part of this to one hundred parts of water and spray on the foliage occasionally.

Yellow Stripe.—A correspondent has found that by leaving the bulbs undisturbed for two seasons in a good and warm situation the stripe will disappear.

Heterosporium gracile.—This is a disease similar in its appearance to yellow stripe, but with this difference: that it stands up on both sides of the leaves, so that when a leaf is drawn between the fingers it feels very rough and lumpy. The leaves do not grow to their proper length and curve edgewise, and the flower-stems likewise are as if one side of the stem was partly shrivelled; hence they do not stand upright, but flop about. It is a contagious disease and very difficult to cure, as the bulbs will carry the disease in them from one season to another. To cure it syringe the plants well with a strong solution of permanganate of potash or Paris green. Scatter and hoe some quicklime into and around the soil in November and March, so as to make the ground white. Be most careful to burn all decaying foliage.

WILLIAM F. M. COPELAND.

Shirley, Southampton.

PERENNIAL PHLOXES.

LOOKING over a very large collection of these beautiful hardy plants recently enabled me to understand why it is that any two persons making selections of the, to them, best twelve or so would yet make entirely diverse selections. There is, in the first place, certain possible colour bias to be taken into account, and, in the second, the time of the season when the collection may be seen. Some varieties are at their best earlier than others, hence seem just then to catch the eye as more attractive. But to the grower of only a few varieties, such as a dozen, for instance, not only is it desirable that they should bloom fairly simultaneously, but also be of moderate height and give a good variation in colour. Then it is desirable to select also varieties which furnish fine heads of bloom, also break freely into side shoots for later bloom and have large, well-formed pips. The newer varieties all give these latter features in a more marked degree than the older ones, and have also less of the dull purple hues in them; indeed, pinks, salmons, carmines and orange scarlets now much more largely dominate, and thus furnish far brighter colours in the garden. But perennial Phloxes too frequently in gardens are by no means done justice to. The plants remain too long in the same place. They become clusters of stems, so crowded as to be incapable of carrying fine heads of bloom, or are otherwise badly treated, and soon lose their stem leafage. I would like to see someone propagate plants from early spring shoots when 2 inches long, rooting them in gentle warmth; then when hardened planting out quite thinly during the month of May on to a carpet of pure white Violas, the Phloxes being, of course, of bright colours. That is the way to see fine heads on single stems and pips of great size and of fine form and colour. Such plants lifted into the herbaceous borders would make fine clumps the second year. My selection, made on August 8, was: Whites, Tapis Blanc (almost too dwarf) and Sylphide. Regulus, Sergent Lovy, Solon, Stendhal, Aurora and Paul Martin, all pink, rose, carmine or scarlet; Selma, pink, crimson eye; Spirite, white, flushed mauve; Champignol, rich purplish red; and Lady Diana, deep rosy crimson. A. D.

THE PARENTAGE OF ROSES.

(*Continued from page* 386.)

Name of Variety.	*Section.*	*Raiser.*	*Date.*	*How Raised.*
Tom Wood	H.P.	A. Dickson	1896	Triomphe de l'Exposition race
Tony Babaud	H.T.	Godard	1895	André Schwartz × Van Houtte
Topaz	P.W.	G. Paul	1909	A Tea × R. wichuraiana
Tricolore	H.W.	Weigand	1906	Chance seedling R. wichuraiana
Trier	M.S.	Lambert	1904	Aglaia × Mrs. R. G. Sharman Crawford
Trierisch Kind	P.P.	Lambert	1909	Cineraria × Yvonne Gravier
Triomphe d'Amiens	H.P.	—	1861	Sport General Jacqueminot
,, de Bolwyller	N.	Baumann	—	R. sempervirens × R. indica flavescens
,, ,, Caen	H.P.	Oger	1861	Seedling General Jacqueminot
,, ,, Lyon	H.P.	Cordier	1859	Seedling Prince Lyon
,, ,, Pernet père	H.T.	Pernet p.	1890	M. Desir × General Jacqueminot
,, ,, Rennes	N.	Panaget	1857	Lamarque × Mme. Angelica
,, des Beaux Artes	H.P.	Fontaine	1857	Seedling General Jacqueminot
Triumph	H.T.	Hill	1906	Grüss an Teplitz × General Macarthur
Turenne	H.P.	V. Verdier	1861	Sport General Jacqueminot
Ulrich Brunner	H.P.	Levet	1881	Seedling Paul Neyron
Undine	Tea	Jacobs	1901	L'Ideal × Sunset
Unermüdliche	H.T.	Lambert	1904	Comtesse de Leusse × Caroline Testout
Unique	Moss	Robert	1852	Sport White Provence
Unser Peti	P.P.	Lambert	1909	Taunusblumchen × Schneewitchen
Valentine Beaulieu	H.W.	Barbier	1904	R. wichuraiana × Souv. de C. Guillot
Valerie Beaumez	H.T.	A. Schwartz	1908	Antoine Rivoire × Paul Ledé
Van Houtte	H.P.	Lacharme	1870	Mme. Victor Verdier race
Veilchenbleau	M.S.	J. C. Schmidt	1908	Seedling Crimson Rambler
Veluwezoom	Pern.	Pallandt	1908	Caroline Testout × Soleil d'Or
Venus	P.M.	Welter	1904	Mme. Moreau × Deuil de Paul Fontaine
Verschuren's Liebling	H.T.	Verschuren	1906	Seedling Farbenkönigin
Vice-President Taboury	Tea	Puyravaud	1907	Seedling La Caleta
Vick's Caprice	H.P.	Vick	1892	Sport Archiduchesse Elizabeth d'Autriche
Vicomtesse de Vezins	H.P.	Gantreau	1867	Seedling Triomphe de l'Exposition
,, Douglas	H.P.	Gonod	1864	Sport Baronne Prevost
Victor Hugo	H.P.	Schwartz	1884	Mme. Victor Verdier race
,, Pulliat	Tea	Ducher	1871	Seedling Mme. Villermoz
,, Trouillard	H.P.	Trouillard	1855	Seedling Geant des Batailles
,, Verdier	H.P.	Lacharme	1852	Seedling Jules Margottin
Vihorlat	H.Rug.	Kauffmann	1894	R. rugosa rubra × Etoile de Lyon
Violette Bouyer	H.P.	Lacharme	1881	Seedling Jules Margottin
Viscountess Enfield	Pern.	P. Ducher	1909	Seedling × Soleil d'Or
Vittoria Gagniere	H.T.	A. Schwartz	1909	Anna Chartron × Mrs. W. J. Grant
Waban	Tea	Wood	1891	Sport Catherine Mermet
Walküre	H.T.	Geschwindt	1909	R. canina × a Tea Rose
Waltham Climber I.	D.T.	W. Paul	1885	Seedling Gloire de Dijon
,, ,, II.	D.T.	W. Paul	1885	Seedling Gloire de Dijon
,, ,, III.	D.T.	W. Paul	1885	Seedling Gloire de Dijon
,, Standard	H.P.	W. Paul	1897	Victor Verdier race
Warrior	H.T.	W. Paul	1906	Marie van Houtte × Princess Bonnie
Wartburg	M.S.	Kiese	1910	Seedling Tausendschön
Weigand's Crimson Rambler	M.S.	Weigand	1904	Crimson Rambler × Blanche Rebatel
Weisser Herumstreicher	M.S.	J. C. Schmidt	1899	Daniel Lacombe × Ma Paquerette
Wellesley	H.T.	M. Natick	1905	Bridesmaid × Liberty
Wenzel Geschwindt	H.T.	Geschwindt	1902	Princesse de Sagan × Comte de Brobrinsky
White Lady	H.T.	W. Paul	1889	Sport Lady Mary Fitzwilliam
,, Pearl	Tea	Nanz	1890	Sport Perle des Jardins
William Askew	H.T.	Guillot	1901	Seedling Caroline Testout
,, C. Egan	H.W.	Dawson	1900	R. wichuraiana × General Jacqueminot
,, Francis Dreer	H.W.	Hoopes	1903	R. wichuraiana × Bon Silene
,, K. Harris	H.W.	Hoopes	1903	R. wichuraiana × Bon Silene
,, Notting	H.T.	Soupert	1904	Mme. Abel Chatenay × Antoine Rivoire
,, Paul	H.P.	Guillot p.	1862	Louis XIV. race
,, R. Smith	H.T.	Smith	1908	Kaiserin Augusta Victoria × Maman Cochet
,, Warden	H.P.	Mitchell	1880	Sport Clemence Joigneaux
William's Evergreen	S.V.	William	1850	White Ayrshire × R. indica flavescens
Xavier Olibo	H.P.	Lacharme	1864	Seedling General Jacqueminot
Yvonne des Buffards	Tea	Nabonnand	1902	Homère × Papa Gontier
,, le Baron	H.T.	Morainville	1909	Captain Christy × Souv. de la Malmaison
,, Rabier	P.W.	Turbat	1910	A wichuraiana × a Dwarf Polyantha
,, Vacherot	H.T.	Soupert	1905	Antoine Rivoire × Souv. d'un Ami
Zelia Bourgeoise	P.P.	Vilin-Vilin	1906	Bouquet de Niege × Miniature
Zigeunerblut	H.B.	Geschwindt	1890	R. alpina × Ile Bourbon
Zigeunerknabe	H.B	Geschwindt	1909	Seedling Russelliana

CLIMBING SPORTS.

Aimée Cochet	H.T.	—	—
,, Vibert	N.	Curtis	1841
Baron de Bonstettin	H.P.	Schwartz	1885
Bessie Johnstone	H.P.	G. Paul	1878
Bridesmaid	Tea	*America*	—
Captain Christy	H.P.	Ducher	1886
,, Hayward	H.P.	G. Paul	1901
Caroline Testout	H.T.	Chauvry	1901
Cecile Brunner	M.S.	Kershaw	1904
Charles Lefebvre	H.P.	Cranston	—
Clemence Thierry	H.P.	Oger	1880
Clothilde Soupert	M.S.	Dingee	1902
Comtesse Lebarthe	Tea	*Australia*	—
Countess of Oxford	H.P.	Smith	1875
Cramoisie Supérieure	C.C.	Couturier	1885
Devoniensis	Tea	Pavit	1858
Earl of Pembroke	H.P.	—	—
Edouard Morren	H.P.	G. Paul	1879
Etienne Levet	H.P.	—	1875
Frau Karl Druschki	H.T.	Lawrenson	1906
Hermosa	B.	Henderson	1879
Hippolyte Jamain	H.P.	G. Paul	1887
Jules Margottin	H.P.	Cranston	1874
Kaiserin Augusta Victoria	H.T.	A. Dickson	1897
Killarney	H.T.	*America*	1909
La France	H.T.	Henderson	1893
Lady Ashtown	H.T.	Bradley	1909
,, Moyra Beauclerc	H.T.	G. Paul	1909
Le Vesuve	Ch.	Guillot	1904
Liberty	H.T.	May	1908
Mme. Caroline Testout	H.T.	Chauvry	1901
,, de Watteville	Tea	Fauque L.	1901
,, Jules Grolez	H.T.	G. Paul	1908
Mlle. Eugénie Verdier	H.P.	G. Paul	1878
Maman Cochet	Tea	*Australia*	—
Marie Finger	H.P.	—	1874
,, Guillot	Tea	Dingee	1900
,, Pavic	M.S.	Benard	1904
Meteor	Tea	—	—
Miniature	M.S.	Lambert	1908
Mosella	M.S.	Conard	1909
Mrs. W. J. Grant	H.T.	E.E. Hill Co.	1899
Nabonnand	Ch.	Gamon	1896
Niphetos	Tea	Keynes	1889
Papa Gontier	Tea	Chevrier	1903
Paul Nabonnand	Tea	Nabonnand	1904
Perle des Jardins	Tea	Henderson	1891
Pride of Waltham	H.P.	Schwartz	1887
Queen of Queens	H.P.	W. Paul	1892
Souv. de la Malmaison	B.	Bennett	1893
,, of Wootton	H.T.	Dingee	1899
Ulster	H.P.	Harkness	1906
Victor Verdier	H.P.	G. Paul	1871
White Maman Cochet	Tea	*Australia*	—
,, Pet	Ch.	Corboeuf	1895

R. DANIEL, *Fishponds, Bristol.*

(*A key to the abbreviations will be found on page* 231 *of our issue for May* 13.)

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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ABOUT GARDEN LILIES.

IN garden or greenhouse, the Lily, be it what it may, is among the most prized of flowering plants, enjoying a popularity it justly deserves, ennobling the race to which it belongs by a queenly grace and beauty of form that is inimitable, and adding charm to its surroundings when grown in the open air by its fragrance alone. Richly endowed in its variety, unequalled either in its purity or brilliance—now of the purest glistening white or anon of the brightest vermilion—it is small wonder that the gems of this great race exercise a sort of fascinating influence over those who have failed again and again to cultivate them with any measure of success.

That there are Lilies, both species and varieties, that may be grown with permanent success in British gardens, and others—too frequently in the majority—where the failures are over-plentifully interspersed amid the successes, all those who have any experience of Lily culture will know quite well. The same band of devotees will also know full well how difficult it is to lay down hard-and-fast rules in respect to many kinds, how easy it is for the inexperienced to prophesy, and how difficult for those possessing even the ripest experience in such matters to know exactly what to do in certain circumstances. These circumstances naturally affect not only soils, districts and altitudes, but the individuality of the bulbs themselves, the more particularly perhaps when these are imported from abroad. It is a case where so much depends upon so little, as, for example, the thousands of rootless bulbs that reach our shores each year from Japan, sound apparently in "wind and limb," that soundness and plumpness which the inexperienced applaud so highly, but which at the same moment may be but the coverlet to a disease as fatal as it is irresistible.

On the other hand, a bulb of the same kind—shall I say L. speciosum Melpomene for the sake of argument?—of home growth, endowed as it were with all its faculties—roots and root-fibres, for example—may be planted in precisely similar soil and at the same moment and become a complete success. This, then, is the class of bulb one has in mind when speaking of a "good garden Lily," a Lily at once amenable to the conditions present in the garden by reason of its own individual fitness. This, too, is the Lily that we can grow, that will afford us infinite and lasting pleasure, the opposite of those for which the doctors know no remedy, and which are dumped upon our shores in the last stages of consumption. How long Lily importers in this country will tolerate the senseless species of mutilation responsible for the failure it is not easy to say, though the time is ripe when Japanese Lily exporters should have their attention drawn to so serious a matter. That Lilies may be collected root and branch, may remain for months in the dry state, and be brought to this country and become a success, the experiences of Mr. E. H. Wilson in China afford abundant proof. And if from China, why not from Japan? To succeed, however, the root-fibres must be retained intact, and the fact cannot be too loudly proclaimed. It is as important to the bulb-dealer as to the amateur or professional gardener who purchases, and sooner or later some of these will refrain from purchasing bulbs so productive of failure and disappointment.

In this matter of imported Lilies the public eye has been for years educated up to a condition of weight, apparent—the word is used advisedly—soundness and plumpness, and it may take a long time to convince that same public that a somewhat shrivelled bulb with roots and root-fibres intact is, for garden purposes, vastly superior to a rootless thing artificially inflated and "got up," as it were, to sell. How great the "sell" will be best known to those who have attempted the cultivation of the Lily in the past, and particularly those coming from Japan year by year. The few of these that succeed constitute the exceptions to the rule, to be regarded rather from the accidental standpoint than otherwise. In brief, their success may be due to the late appearing of the basal roots or to a superabundance of stem-roots, and if the former, there should be little or no difficulty in permanently establishing the bulb.

As a set-off against the wholesale failures of auratums and Japanese-grown Lilies in general, the North American kinds, which are rarely so mutilated, are interesting. Moreover, they are usually easily established, and remain so permanently, which is important. Hence what the Lily-grower should insist upon is Lily bulbs with roots, as without these

the chances of success are not great. That there are exceptions even here there is no denying, and such as tigrinum, the well-known Madonna kind, the elegans class and the noble-flowered giganteum occur at once to the mind as instances where the root-fibres are either produced and perish annually or occur but sparsely on the bulbs. Where this is the case, a greater period of time is required to re-establish the variety, and the more so if the latter happens to be of the non-stem-rooting class. Stem-roots, indeed, must ever be regarded as a sort of saving grace, something to be encouraged to the full, something capable of shouldering the responsibilities of the moment and of making success doubly sure. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 29.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster. Lecture at 3 o'clock on "Insect Pests," by Mr. F. Enock, F.L.S., F.R.S. Wood Green and District Horticultural Society's Meeting.

August 30.—National Vegetable Society's Show at the Royal Horticultural Society's Hall, Vincent Square, Westminster.

August 31.—Dundee Flower Show (three days). Sandy and District Flower Show.

September 2.—Ibstock Flower Show.

Exhibition of new Chinese trees and shrubs.—Readers of our pages will be interested to hear that at the forthcoming meeting and exhibition of the Royal Horticultural Society, a large collection of the new Chinese trees and shrubs will be exhibited by the Hon. Vicary Gibbs of Aldenham House, Elstree, Herts. The exhibition will be held at Vincent Square, Westminster, on Tuesday, August 29.

Crystal Palace and Kew Gardens.—A novel suggestion is made by a correspondent in the *Daily Chronicle*, who on visiting the Crystal Palace writes: "I was pained to find its original splendour desecrated, and found little else but 'shop' whichever way my eyes roamed. My feelings, however, received a greater shock on reading a notice of its public auction. Are the memories of its honoured founders thus so soon forgotten? This cannot and must not be. Englishmen, see to it that this noble structure, with all its honoured associations, be left to the country. It is unequalled in size and character, a world-wide known English institution, and one of the grand features of the country. It should be purchased by the nation and re-erected in Kew Gardens, where such an edifice is needed for monster specimen Palms and many other varieties of plants, as a memorial to its noble founders in general, and to the Prince Consort and Queen Victoria in particular."

National Vegetable Society's trial of Globe Beetroots.—Included with a much larger one of long-rooted Beets, which will be dealt with later in the season, were some seventeen stocks of Globe or round-rooted varieties kindly sent for trial by sixteen diverse seedsmen. Trials of the entire stock were conducted simultaneously on sand at *The Times* Experimental Station, Sutton Green, Surrey, under the control of Mr. H. Foster, and on loam at Marsh Farm, Twickenham, under the control of Mr. W. Poupart. That the unusually long spell of drought and heat checked the growth there can be no doubt, but under the circumstances the roots were excellent. In few cases were there very uneven stocks among the round-rooted section. The sowing was made in both cases early in the month of May. The primary tests were of the roots in form, and of the flesh in colour and in fineness of grain, as these features, and especially the latter, are of special importance. Consequently, of each stock several roots were pulled and cut to make the tests complete. After the most careful scrutiny of the roots of both trials, three marks or very highly commended were given to The Sutton Globe, from Messrs. Sutton and Sons, Reading; Crimson Globe, from Messrs. Dickson and Robinson, Manchester; Early Globe, from Messrs. Yates of Evesham; Early Red Globe, from Messrs. Barr and Sons, Covent Garden; and Blood Red, from Messrs. Hurst and Co., Houndsditch. Two marks or highly commended were given to Globe Witham Fireball, from Messrs. R. Veitch and Sons, Exeter; Selected Globe, from Messrs. Dobbie and Co., Edinburgh; Deep Blood Red, from Messrs. Alex. Dickson and Sons, Newtownards, County Down; and Crimson Globe, from Messrs. Toogood and Sons, Southampton. With respect to these latter four it is but fair to say that on other soils their flesh may equal in colour those of the first group; but it was obvious the results of the two trials named could only be adopted in this case. Several stocks showed the root flesh to be far too white or coarse to merit cultivation. The firms contributing seeds have the society's warmest thanks.

CORRESPONDENCE.

The Editor is not responsible for the opinions expressed by correspondents.)

The Fellows of the Royal Horticultural Society and the International Exhibition.—The Fellows of the Royal Horticultural Society owe a debt of gratitude to Mr. Lemesle Adams for having thus publicly drawn attention to the position of the Fellows in relation to the coming International Exhibition, although I fear the Rev. W. Wilks' reply to his letter will afford him little satisfaction. The Council, it seems, can hardly understand how great is the dissatisfaction existing among the Fellows in relation to this exhibition. The Council puts aside its great Temple Flower Show, one of the chief assets to the Fellows, in favour of the International Exhibition. That act represents an enormous gift to the International executive, but, all the same, a corresponding loss to the Fellows. Beyond that, it gives the executive of the International £1,000 down and guarantees it to the extent of another £4,000 against financial loss. For these huge gifts, what has the Council obtained in return? Practically nothing. The privilege to purchase tickets cheaper than non-Fellows can purchase them, but still at exorbitant prices, is no privilege whatever. Has the Council allowed itself to be sold, or have the Fellows been sold? In any case, the position shows that the Royal Horticultural Society has made an exceedingly bad bargain. If an International Exhibition was desirable, and all admit so much, why on earth, with all its great wealth its vast experience and its commanding position as the premier horticultural society of the world did not the Council undertake to organise the show itself and thus secure full control, all the essential credit and the financial accretions? Doing so would have been one of the most popular, as well as profitable, acts of the Royal Horticultural Society.—A FELLOW.

—— I am entirely in agreement with Mr. Lemesle Adams (page 390) in the matter of the advertised charges of admission to this exhibition. It surprises me that an immediate and general protest has not been raised, and I hope you will invite a full discussion in your paper. The charges for the first and second days are prohibitive, not only to the rank and file of the Royal Horticultural Society, but still more to the general public who are not Fellows and can obtain no reduction on their tickets. The men of small to moderate means are the strength of the Royal Horticultural Society and of horticulture outside it, and they are debarred from admission by these preposterous charges. The Royal Horticultural Society's secretary writes that "the directors of the company are free to fix such charges as will, from their point of view, prove remunerative." There is in this sentence a very disagreeable suggestion of an exclusive entertainment for the wealthy got up with a cash profit in view. Furthermore the Royal Horticultural Society's secretary emphasises the fact that the Royal Horticultural Society "has no manner of control whatever over the company." Surely the Council of the Royal Horticultural Society in giving its large subscription and guarantee could have, and should have exercised some control as to the difficulty or freedom of admission? Otherwise what real return is the Royal Horticultural Society as a whole getting for this great sum? The Fellows at large have a right to protest against such an expenditure on a rich man's show, which can be seen in its perfection only at a price impossible to, say, one-third of their number and unjustifiable to another third. The Royal Horticultural Society's secretary asserts that the Fellows are reaping nearly £16,000 in allowances on their admission tickets. Such figures are wholly illusory. It is doubtful whether a third of the Fellows will pay the monstrous charges for admission on the good days, and it is certain that such payments will be made with reluctance and indignation. Few will desire to go alone. To go the first day with one of my family would cost me £3 12s., which it is moderate language to call an extortionate and impossible charge. Such charges must defeat what ought to be the end and aim of the exhibition, namely, the delight and the education of the horticultural public. To adduce the high charges made at a similar show two generations ago is no argument. Horticulture belongs to the people now. Such a great exhibition must entail correspondingly great expense, but few will believe that it could not be contrived on other than prohibitive charges of admission.—G. H. ENGLEHEART, V.M.H.

The twelve best Sweet Peas for exhibition.—Now that the Sweet Peas have been exhibited freely, one would be very glad to have the opinion of other readers on the best twelve varieties for exhibition next year, because no doubt now is a much better time to choose and make notes than when the spring catalogues are issued. I enclose the names of those which in my opinion are the best: Elfrida Pearson, Thomas Stevenson, Tennant Spencer, Elsie Herbert, Mrs. Routzahn, Clara Curtis, Maud

Holmes, Etta Dyke, Mrs. C. W. Breadmore, Flora Norton Spencer, Tom Bolton and R. F. Felton.—F. OWEN, *Beechley, Wrexham.*

Northern Sweet Pea trial. — I feel sure that if the National Sweet Pea Society desires to have a Northern Sweet Pea trial, the North of England Horticultural Society will take the matter in hand with pleasure. Such a trial would be sure to give excellent results to practical growers, and I think we could arrange for three or four experiments in different localities.—J. BERNARD HALL.

Sun-heat and fungoid diseases.—A very interesting question is raised in reference to the prevalent heat and its effects on fungoid diseases. Conversing a few days since with our county bee expert, he informed me that the great sun-heat experienced this season was rapidly killing the bee disease. If that be so, then the matter is of the greatest interest to apiarians. My friend's theory of the disease is that cold, wet summers created mildews or fungus diseases in the flowers which bees frequent, and especially so in the pollen, but that these moulds or fungi could not exist in the prevalent heat; hence bees were once more becoming healthy because their food was healthy, and they could get plenty of air and exercise on the wing. Apiarians may find this view a bone of contention; but let us look at the Potato crop. How many years have elapsed since we saw all late breadths looking so clean and green as now? In many seasons we have seen breadths almost denuded of their leaves through the fungus disease by the middle of August. Yet, so far as I have seen over a wide area, not a vestige of the disease is to be observed on the leafage. That pest cannot live or grow in a dry heat; it must have moisture. If the heat generated thunder-storms, possibly the belated spores would soon find in the moist leafage the conditions of growth they need. The Potato, like the Tomato, is a semi-tropical plant and revels in warmth. It has been specially interesting to note how strong and bold has been the haulm in the intense heat, while leafage of hardy crops has greatly flagged and suffered. Where have been seen those virulent attacks of mildew on edible Peas which were so evident last year? If Peas have suffered severely this season, it has been more from thrips and spider generated by heat than from mildew. On Onions the too common mildew has been scorched up. If on the ordinary vegetables of our gardens and fields these are the product of sun-heat in thus killing fungi, what have been its effects on fruit trees and bushes? One of the most harmful of fungi on fruit trees is the stone fruit silver-leaf disease. Even if that has been in evidence this year—and doubtless it has been too largely—it may be that heat will have so weakened its vigour, in addition to creating woody matter of greater vigour and higher maturation, that less will be heard of it next year. Then, among bushes, a favourite subject for the fungoid alarmists has been the Gooseberry mildew. It would be very interesting to learn from growers who may have found that disease among their bushes whether it has suffered any check through the sun-heat or whether it has spread. Last year I received before this time several examples of the warty disease in Potatoes. So far none has come to hand, neither have I heard of any. However, others may have had different experiences. Still the question is, Has the great sun-heat been destructive to fungoid diseases?—A. D.

GARDENING OF THE WEEK

FOR THE SOUTH AND SOUTH MIDLANDS.

GREENHOUSE.

MALMAISON CARNATIONS. — The plants which were layered a few weeks back will now be ready to be potted into 4-inch pots. A suitable compost will be two parts loam, one part leaf-soil and a good sprinkling of sharp sand. Carefully sever the stem, and endeavour to move the young plants with a good quantity of soil attached to the roots. Place them in a cold frame and keep them rather close and shaded for a few days; then gradually inure them to full exposure.

Perpetual-flowering Carnations.—If these have been growing outdoors they will have made capital growth, the dry season being all in their favour. The pots being now full of roots, a little stimulant may be afforded the plants; weak soot-water occasionally will also be beneficial. Should the weather become cold and wet, the plants must be placed in their winter quarters without delay. This should be a light house where they can be placed on a stage near to the glass. Fumigate them occasionally to keep them clean.

Cyclamen.—The season has been very favourable for the growth of these plants, as it has been possible to remove the lights at night during the greater part of the season. This treatment may still be continued during favourable weather. The heavy dews which are usually prevalent at this time of year are very beneficial to the growth of the Cyclamen. They must now be liberally treated in regard to feeding. Diluted cow-manure is an excellent stimulant for these plants. This may be supplemented with a little Clay's Fertilizer, but care must be taken that the manure does not lodge on the surface of the corms, as this may cause the flowers to rot. If it is desirable to delay the flowering of some of the plants, the earliest flowers may be pulled out. The first batch of seeds may now be sown in shallow pans in a compost of loam, peat and leaf-soil in equal parts, with a good sprinkling of sand. Place the seeds over the surface of the soil about an inch apart, and cover them with fine soil. Place the pans in a moist atmosphere and thoroughly moisten the soil. Cover the pans with glass, and cover the glass with moss, which must be kept moist by syringing. When the seedlings have germinated, place them on a shelf near to the glass.

Chrysanthemums.—These will require plenty of attention now with regard to tying and removing side growths. Buds which are showing must be left. In some cases it may be desirable to retard these early buds; this may be done to some extent by leaving one or two growths at the base of the bud for a few days, but they must not be left too long, or the bud will be spoilt. The pots will now be full of roots, and they will require more liberal treatment in the matter of feeding. Where blooms are needed for exhibition, it is good practice to apply a surface dressing of some rich materials; but this should not be given till the buds are showing. Spray the plants occasionally with an insecticide to keep them clean, and during hot weather give them a vigorous syringing early in the morning and late in the afternoon.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

PROPAGATING BEDDING PLANTS.—Cuttings of many summer bedding plants may now be taken, beginning with the more tender and soft-wooded subjects, such as Iresine, Lobelia, Ageratum and Heliotrope. These will root best in a gentle heat in a closely-shaded frame or pit.

Lobelias of the erinus type, including the double variety, Kathleen Mallard, by reason of their persistent flowering properties, produce very few cuttings unless special means are employed to obtain them. The best method is to have a few plants left over at bedding-out-time, which should be planted out in boxes or cold frames in good, rich soil. Cutting over the plants when about to flower will encourage fresh young growths from the base, which will usually supply all the cuttings required. The plants thus treated can also be broken up into small pieces with a few roots attached, and if treated the same as cuttings will soon make suitable plants to provide stock for spring propagation.

Zonal Pelargoniums may be placed in pots or boxes and rooted in the open, although it is safer with our northern climate to place them in cold frames where the lights can be placed over them should the weather prove dull and wet. It is at this season more than any other that the disadvantages of Zonal Pelargoniums as bedding plants are apparent, for, to secure a sufficient supply of cuttings, the beds must of necessity be partly denuded of much of their beauty, and for this reason, as well as for the extra labour and room required for keeping them through the winter, a selection of hardier and less troublesome summer bedding plants has now become fashionable.

Tuberous Begonias have lately taken the place of Pelargoniums in many establishments, and the cool and moist conditions generally prevailing suit their requirements better than the latter. They are, however, very tender and easily damaged by frost. Some provision should therefore be made to protect them from early frosts, which are usually experienced for a few nights about the end of August and beginning of September, and are often followed by a month or six weeks of genial weather. To keep up a stock of fresh young bulbs, a few should be raised from seed annually and planted out in cold frames, where they will form strong bulbs and flower the same season. They can then be marked, according to colour, for use the following season.

Pentstemon Cuttings may also be put in at this time, especially of those varieties that are found difficult to increase, and a second batch may be got later on. Look over the rockery and the wall garden, and propagate by cuttings or divisions any that will require replanting in spring. A cold frame should be set apart for this purpose, and the cuttings dibbled in from time to time as each subject can be got in proper condition. The beds in the flower garden will require frequent and careful attention at this time to keep them in a tidy condition. Many of the occupants have this season, owing to the abnormal drought and heat, flowered earlier than usual, and are producing quantities of seed-pods. These should be removed at once to induce the plants to flower later on.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

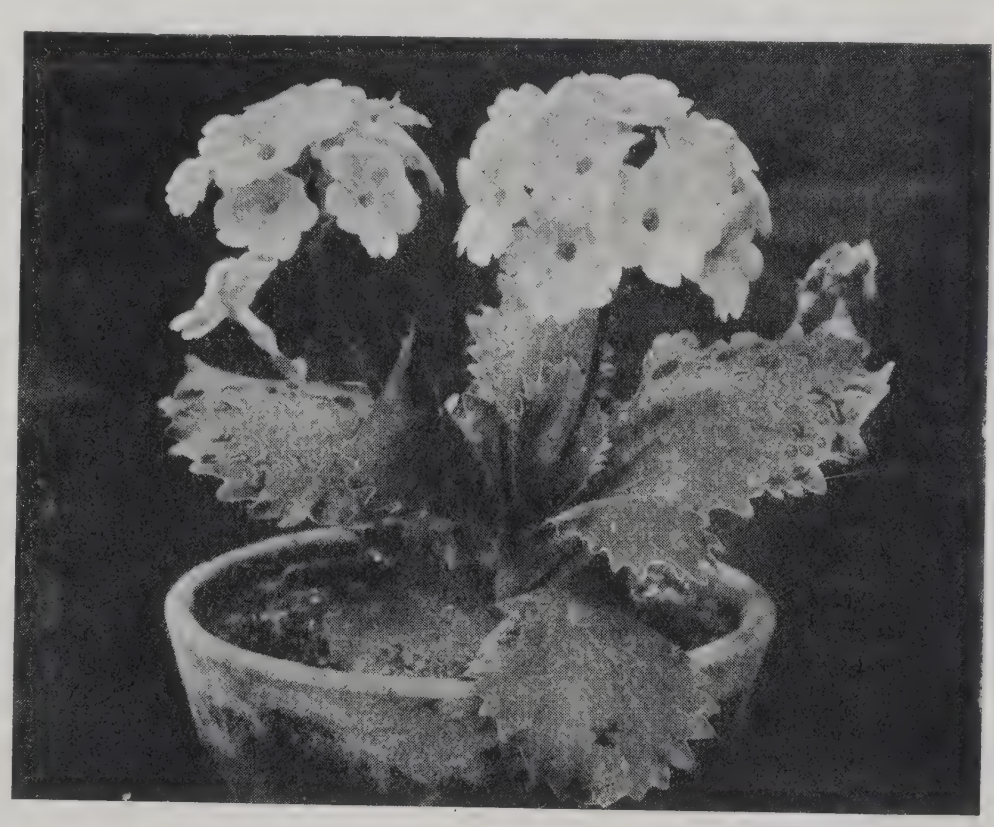
FRUIT NOTES.

FRUIT TREES ON WALLS.—Immediately the crops are gathered from the wall trees, the cultivator must find the time necessary to thoroughly examine them for the presence of insect pests. When fruits are approaching ripeness it is impossible, even should insects be known to be attacking the leaves, to have recourse to insecticides, and it is, therefore, quite possible for the infestation to assume serious proportions without the grower being able to take real steps to suppress the trouble. As soon, however, as the crops are harvested, the task of eradication must commence, one of the many excellent washes advertised in the pages of THE GARDEN being used in strict accordance with the directions which accompany them. One application will rarely suffice; repeat as may be required until there is not a sign of a live enemy on the plants.

RASPBERRIES AFTER FRUITING.—With the completion of the harvest of Raspberries it is necessary to turn to cultural matters in connection with the plants. It is perfectly well known that the canes do not crop a second time, and still inexperienced and careless people leave them in position for months after they have lived their useful lives. Directly picking is finished, cut out the shoots from the base and thus ensure that the new ones shall have full benefit from light, air and food. Of these latter five or six at each stool ought to be retained and all others cut out. Suckers which spring well away from the root-stock must also be similarly dealt with, as they deprive the fruiting growths of valuable nourishment. In the possible event of stock being wanted for the formation of a new plantation, a certain number of clean, healthy suckers should, of course, be retained; but in all other circumstances the sooner they are cut out the better. It is imperative, too, that the beds shall be cleansed of all weeds, and it will do good to point lightly over and mulch with good manure.

STRAWBERRY-BEDS.—All beds which have borne three crops of fruit ought to be grubbed at once, unless the work has already been accomplished, and the space occupied with another crop. One and two year old beds should be thoroughly overhauled with a view to the entire removal of weeds, dead and dying leaves, as well as runners, the surface being afterwards lightly pricked over and left open for a time. Beds of young plants put into position in July and during the early days of the present month will demand regular attention in hoeing and watering, as it is imperative to the most gratifying success that the progress of the plants shall be quite uninterrupted. The incessant use of the Dutch hoe will do immense good in keeping down weeds, and at the same time admit fresh air to the soil to keep it sweet and invigorate the roots.

RIPE PLUMS AND PEARS.—The promise of the earlier months of the summer was for magnificent crops of all kinds of fruit in practically every garden, but the fulfilment is not quite as satisfactory. It is, therefore, more than ever necessary to exercise such care in gathering and storing that not an individual fruit shall be damaged to the smallest extent, but shall find its way to the store in that perfect condition which alone ensures full value to the grower. The trees ought to be carefully examined daily and those fruits which are ready should be secured, as an hour or two may spell the difference between having or losing a proportion of the crop. Both the Pears and the Plums demand the utmost care in handling, and the choicest specimens of the former should be enwrapped separately in tissue paper and stored in drawers in the fruit-room or other convenient place. Good Plums are among the most luscious of fruits, and if they are handled with scrupulous care they will keep splendidly for some time after gathering. They will, of course, shrivel a little, but the quality will not be impaired.



PRIMULA MARGINATA LINDA POPE IN THE GLASNEVIN BOTANIC GARDENS.

THE FRUIT-ROOM.—The most careful fruit-grower will have had his fruit-room thoroughly cleansed and prepared for the reception of the crop before this paragraph sees the light of print; but others will not have put the task in hand, and the object of this note is to urge them to attend to the matter immediately. There must be no suspicion of staleness in the atmosphere, as the fruits at once take up the flavour of impurities and are thus more or less ruined. FRUIT-GROWER.

NUT WANDS.

AN early opportunity should be taken to remove all wands and sappy growth from Nut bushes. This allows light and air to circulate freely, and at the same time checks the loss of nutriment that simply goes to foster non-fruiting growth. In Kent, where Nuts such as the Kentish Cob and Filberts are grown with marked success, all of the bushes are uniformly trained in basin shape, being quite open in the centre. The wands are cut in lengths and used in packing Apples and other hardy fruits for market.

THE GREENHOUSE

LILIUM HARRISII.

INEXPERIENCED cultivators often met out wrong treatment to the bulbs of thi Lily when they are received and potted Directly the bulbs come to hand they mus be potted. It is a great mistake to unpac the bulbs and then lay them out on dr shelves. Keep them as moist as when they firs come from the bulb merchant, and then, if potte in this condition, no strength will be wasted.

Two courses may be taken—the bulbs may b placed in 6-inch pots and, in due time, repotte in larger ones, or they may be put forthwit into 7½-inch or even larger pots if more than on large bulb is grown in a single pot. If first starte in boxes, some of the roots are nearly sure to b broken off when transferring the bulbs to pots In every instance the pots and crocks must b very clean and dry when used, and ample drainag provided. Fibrous loam which has been stacke for at least four months and i quite free from wireworm, two thirds, and leaf-soil, sand an rotted manure, one-third, form good compost. The manure mus not be mixed with the soil, bu placed on the drainage materia Put in next a few inches of th prepared compost; then, in th centre and resting on a base o coarse sand, the bulb. The to of the latter need not be quit covered. Make the soil moderately firm around the bulb. Whe potted, give water to settle th bulb in the soil, place empty inverted flower-pots on those con taining the bulbs, and then kee the pots in a cool frame fro which frost can be excluded.

Very little water will be required until the pots are getting wel filled with roots and the stem of the plants are about 15 inche high. Remove the empty flower pots just before the stems grow tall enough to touch them. I due course a good surface mulch of rotted manure and fibrous loam must be put on, filling up the pots, but allowin space for watering in the usual way. When th bulbs are at first placed in filled pots, much car is necessary in regard to watering at all times else many basal leaves may be lost. Liliums wel rooted will force readily enough, and at this stag weak doses of liquid manure are beneficial. Th flowers last for a considerable time in a greenhous temperature. The points of the shoots must b kept free from green aphides, otherwise there ar not many insect pests to guard against. B.

SCHIZANTHUS WISETONENSIS.

EXCELLENT early-flowering plants may be obtaine if seeds are sown early in September. The seed are cheap and the plants are not expensive to grow but when they are well cultivated the amateu cannot have a more showy plant in his greenhous or conservatory in springtime and the early par of summer. The young plants are easily reare through the winter-time. If there is a warm sunny shelf in a greenhouse available, it will form an ideal place for the young seedlings. Sow the

seeds in a compost of fibrous loam and leaf-soil in equal proportions, and add sand freely. Use well-drained pots or pans and place them in a closed frame or on the stage in a greenhouse. If a square of glass and some brown paper are put on the seed-pan, the seeds will germinate more quickly; but in order to prevent the resultant seedlings being drawn up weakly at this season, all covering material must be removed directly they appear. When large enough, transfer the seedlings to small pots and repot them before they get pot-bound. They like the sunshine in winter-time, and must, as already stated, be wintered on a warm, sunny shelf not too far from the roof-glass. SHAMROCK.

THE KITCHEN GARDEN.

AUTUMN-SOWN ONIONS.

TO keep up a constant supply of Onions throughout the year, a good bed of the Tripoli type should be sown at once on well-prepared land fully exposed to the sun. It is needless to remark how useful this crop will prove in April, when the bulbs from the spring kinds are fast decaying. I have relied on a good strain of the Giant Rocca, Globe Tripoli and Lemon Rocca, the former two for many years, and in most seasons these produce excellent Onions. For this crop the land should be fairly rich, deeply cultivated and somewhat firm. I always sow the seed rather more thickly than when sowing in spring, so that in March a good number may be transplanted and others drawn and used for various purposes. Let the drills be a little deeper than when sowing in spring, and quite 12 inches apart, and as soon as the plants are well above the ground the Dutch hoe should be run between them. This ought to be repeated at intervals till late in the autumn. Few crops respond so readily to a little extra care and attention, and if large bulbs are required, liberal quantities of liquid manure when the land is in a rather dry state in spring will prove very helpful in assisting the swelling of the bulbs. The frequent use of the hoe cannot be over estimated. H. M.

SPINACH BEET AND TURNIPS.

YOUNG, tender leaves of Spinach Beet make a capital substitute for ordinary Spinach, and, as it is very hardy, it should be grown somewhat largely for maintaining a constant supply during winter and spring. I have grown it now for several years, and found it exceptionally useful at different times when the winter Prickly Spinach has been very scarce. The seed should be sown on rather rich land in rows 18 inches apart, and when the plants have attained a fair size they should be thinned out to allow each plant room to more fully develop. The plants readily respond to transplanting if this is carefully done and they are watered in dry weather till they have taken to the new soil, so that from a few rows good beds can be made from the one sowing. Some of the best and most dependable varieties of Turnips which I grow for winter use are Red Globe and White Stone. If two or three sowings are made during August on land that has been moderately prepared for the reception of the seed, and which is fairly rich, a regular supply of sweet roots will be maintained throughout the winter and spring months. There are different ways of protecting Turnips during very severe weather, all of which may have something in their favour. We find the roots keep well when pulled up and packed thickly in trenches sufficiently deep to completely cover the roots. H. MARKHAM.

Wrotham Park Gardens, Barnet.

THE FLOWER GARDEN.

PRIMULA MARGINATA LINDA POPE.

THIS Primula is a new hybrid recently sent out, and seems likely to prove an acquisition for the rock garden. It is a great improvement on the type, as the flowers are not so thin and of good shape, resembling in the latter respect the alpine Auriculas, the colour being soft mauve lilac. At Glasnevin it grows freely, and when not in flower possesses the same attraction to the alpine-lover as its parent. The leaves are decidedly pleasing, of a soft green, with sharply-toothed margin, edged with a silvery powder. They are also larger and of greater width than those of the parent. The flowers are freely produced from April to May. P. marginata alba, although described as a pure white, is often blush colour, and seems rather thin in the flower. After this type of Primula has been in the same place for a few years it makes a stem and becomes rather leggy. It can then be taken up and divided, the stem being planted deeply and nearly to the leaves. Roots are emitted from the stems, and more vigorous plants are thus secured. This Primula can be grown in ordinary loam mixed with grit. C. F. BALL.



BULBOCODIUM VERNUM IN A ROCK GARDEN NEAR LONDON.

A BULBOUS PLANT FOR THE ROCK GARDEN.

Now that the autumn is just upon us, it is as well to give some thought to what bulbs we shall shortly plant for early spring blooming. When considering bulbs for the rock garden, it is well to bear in mind that only the smaller-growing ones are in keeping with the dwarf growths among which they will be planted. Another advantage of a careful selection of bulbs for the rock garden is the considerable increase in flower it enables us to enjoy in the earliest days of spring, as many such plants are in full flower long before most kinds have responded in the smallest degree to the slightly increasing daylight.

One of the most welcome of these early visitors which gladden us as we walk among our treasures in mid-February is Bulbocodium vernum (the Spring Meadow Saffron) from the Alps of Europe, pushing up its dainty rosy purple flowers in advance of its leaves, like its cousin the Colchicum. It is curious what short stalks these flowers have, appearing to come direct from the ground itself. One interesting point in regard to this flower is the long time the pollen appears to remain good—often for some days after the petals have withered. It is not particular as to soil, and I find that sandy loam, with a little leaf-mould added, suits it excellently. When planting I usually mix a little Vaporite with the earth in case it contains any uninvited guests which might harm the bulbs, while if a few small pieces of Arenaria balearica are planted over the place where the bulbs have been inserted, they will greatly add to the "furnished" appearance of the group when the flowers come through the soil.

While this plant is not fastidious as to position, the flowers last longest if planted where some surrounding rocks check the force of the cutting winds, and yet where they will receive what small amount of winter sunshine there may be. It looks best planted in small colonies, and on no account should it be inserted singly, while a charming effect is produced, and admirably in keeping with the "natural" appearance a rock garden should possess, if the bulbs are placed so as to form a "drift"—say, a space 6 inches wide by 2 feet or 3 feet long, tapering at one end to 3 inches and in a diagonal direction on the rockery.

South Woodford, Essex. R. A. MALBY.

CAMPANULA VIDALII.

THIS species of Campanula is widely removed from the rest of its family, as it forms a plant of a shrubby character, clothed with dark green oblong-shaped leaves about 2 inches in length and of a thick waxy nature. It was discovered by Captain Vidal on a small island near Flores in the Azores in 1851, so that it has been known in this country for sixty years. When in full bloom it is a very attractive plant. It is of shrubby growth, forming a woody stem about 1 foot in height, from which numerous erect branches start, many of these elongating into flower-spikes. These often attain a height of over 2 feet, and an example bearing thirty or more flower-shoots presents a remarkably pleasing picture. The blossoms are long, drooping and bell-shaped, creamy white in colour, with a bright orange ring at the base of the cup. The flower, which is waxy, is very substantial in texture, and remains fresh for a considerable period. It is contracted in the middle, but expanded again at the mouth. The narrow, serrated leaves have glossy upper surfaces. This Campanula cannot be recommended for open-air culture, except in the very warmest localities, and will not withstand 10° of frost, plants having been killed with that amount of cold in South Devon. In mild winters, such as are usually experienced, however, they are generally unharmed. The subject of the accompanying illustration lived in the open for three years before it produced the marvellous profusion of blossom shown. In the spring it began to make strong growth, and eventually threw up thirty-three flower-spikes, the tallest reaching a height of 35 inches from the ground and carrying eighteen blooms, while, in all, the plant at the time it was photographed was bearing about four hundred blossoms. Its main stem, from the top of which the flower-shoots were thrown out, was woody, 9 inches in height and 4 inches in circumference. It was at its best at the end of July and, curiously enough, produced a second, autumnal crop of flowers, and early in November was again in bloom. The second time it threw up ten flower-shoots, the largest one far exceeding any of the summer shoots in size and bearing thirty-four blossoms. Unfortunately, every growth made developed into a flower-shoot, and the strain was so great that the plant made no fresh growth but died. I have never met with this Campanula permanently planted in the open, though it is quite possible that there may be other instances besides that of the plant here illustrated. I have, however, several times met with it flowering in the open; but this was where the pots were plunged in the border and were removed to glass protection in the winter. As may be seen, a good specimen of this native of the Azores is an attractive sight when in full flower, the long, white, pendent bells, which stand out from the flower-stems on footstalks about 2 inches in length, some of which carry three or more blooms, giving the plant a distinct character. Campanula Vidalii produces seed in quantity, which, if sown in the early spring, generally germinates well. Plants will flower the second year from seed. Cuttings taken in the spring are sometimes recommended, but the glutinous, white sap which freely exudes from them often renders them difficult to strike.

WYNDHAM FITZHERBERT.



CAMPANULA VIDALII IN A SOUTH DEVON GARDEN.

SWEET PEA NOTES.

THE FLORAL COMMITTEE. The newly-constituted floral committee has had its turn, and it is therefore time for the critics to commence their important labours. Last year the trouble largely arose because one firm stood head and shoulders above all others, and there were those who were inclined to take the view that the members of the committee had shown favouritism. Now the results show the same firm in the same proud position, but some of the old members were out of power and new blood was at work. The natural deduction is, then, that if there was favouritism last year, there was this; but it will be a bolder man than I to assert it. As far as I can glean, there is real dissatisfaction with the results, and I begin to think that it will be impossible to bring together nine or twelve human beings who will please everybody; and as we cannot have angels, we had better let it go as it is and chance the results. The present committee is a good one, and with some improvements in the rules will do the work as well as any other nine members of the society who might be chosen.

OUTSTANDING NOVELTIES.—Readers will ask whether there were any novelties of really outstanding merit. I should say no, for, as far as my capacity for judging goes, it would not be easy to find a more mediocre lot than the honoured Sweet Peas of the present season. If we have reached the limit, which I do not for one moment believe, the best thing will be for the society to abolish its floral committee and trials and leave the growing public in the hands of raisers and distributors, as was the case in the days gone by. It is waste of time and money to adjudicate upon varieties which show scarcely any advance upon their predecessors; and the fact that awards are made to such by the powers that be must tend, in some degree at least, to mislead the grower into thinking that they are conspicuously good in some direction or another. Some of the finest varieties at the trials were not absolutely true and were passed over, and it was suggested that there was something in the soil of Sutton Green that encouraged variations in certain colours. Whether this be true or not I am unprepared to say, but since there is a living doubt, let us take it as a powerful argument in favour of the duplication of the trials.

AN INTERESTING POINT.—There was a law in the National Sweet Pea Society that varieties would only be received for trial from the raiser or distributor, and I should like to know whether this has been rescinded. If not, are Messrs. Dobbie and Co. either the raisers or distributors of Thomas Stevenson, which received a first-class certificate? It is true that the word "Improved" was added, but this signifies a selection from a stock already raised and not the production of a new variety. Be it thoroughly understood I am not questioning the merits of Dobbie's strain of Thomas Stevenson, but simply the validity of its acceptance at the trials, seeing that Thomas Stevenson raised the variety and Robert Sydenham distributed it. Unless I am much mistaken I have seen bunches of it grown from the original strain which were equal in every respect to the present "Improved," which may be taken to mean that it is easily the finest of this glorious colour at present on the market. If Dobbie's had given us a Thomas Stevenson which would not burn, we would have called down the sincerest of blessings upon their heads and promised them a record sale for the variety in the following season. I ask the Editor to spare space for the views of readers on a point that, to me at any rate, is extremely interesting, and is obviously of importance.

Barbara and Others.—In addition to Thomas Stevenson, Improved Barbara was the only variety to receive the first-class certificate. It was sent by Mr. Robert Holmes, and came quite true in the trials; the colour is salmon orange. Red Star was sent by Mr. Alexander Malcolm, Duns; it is a glowing red of good form and substance, and is said not to burn. F. Seymour Davis came from Mr. F. Seymour Davis, Farnham; it has a white ground suffused with pale violet, and was true. Mauve Queen, from Messrs. Dobbie and Co., had the merit of being true. May Campbell also hailed from Dobbie's; it has a cream ground, with heavy rose purple in the standard. It contained one rogue. Mrs. B. Gilbert was sent by Messrs. Gilbert and Sons, Dyke, Bourne, Lincolnshire; it has a white ground faintly lined with blue or purple. It contained one rogue. Taking them altogether, they are, as I have already said, only a very moderate set.

A. B. Essex

BULBS FOR FIBRE AND THEIR CULTIVATION.

A correspondent from Bristol earlier in the year enquired what bulbs other than those he had tried could be recommended for growing in fibre. He wrote: "I have taken up the growing of Dutch bulbs in this way for the first time this season, and am more than pleased with the result. I shall be glad if you will name some good standard sorts which can be purchased at a moderate price."

The Editor has entrusted me with the reply. Before, however, I enter into details, I think I ought to give the list of what our correspondent grew himself, viz.: Hyacinths — Grand Maître and La Grandesse. Tulips — Murillo, Keizerskroon and Rose Gris-de-lin. Narcissi—Golden Spur, Emperor, Poeticus ornatus and Barri conspicuus. Crocus—Sir Walter Scott. Every one of these did well with the exception of Tulip Rose Gris-de-lin. They were all grown in ordinary rooms in his dwelling-house, and a remark that he casually makes hits one of the essential nails upon the head, and I want to drive it home by repeating it, viz., "to get the best results, bulbs should be grown *as hardy as possible*, although it delays the blooming for a few days." Another essential is to *pot early*, not later than the end of September. After potting, put the bulbs in a dark, cool and airy cellar for a few weeks; then gradually inure them to the light. A third essential is to keep them in a cool and sunny room. A room where there is no fire and where there is no gas used, with a good light window, is the best place for them to spend their growing period in. It is only as they are nearing their flowering that they should have any extra warmth or any extra stimulant. Then, just before the buds burst, a pinch of a good fertiliser has a good effect, but it must be used sparingly. A fourth essential is keeping the fibre *neither too wet nor too dr*. The golden rule is "just moist all through from potting to flowering time." Here is the great practical difficulty for beginners, and for older hands too. Nothing but care and observation can conquer it. Given these, there should be very few failures indeed.

Our friend and other readers will be interested, and very likely not a little surprised, to hear about the result of a little experiment I made last year. The fibre mixtures are expensive, so I bought some finely-ground peat-moss litter. Some I used just as it was, some I mixed with shell and charcoal, and some with old finely-powdered cow-manure. I also filled some of my bowls with just ordinary *light* garden soil, and others with ordinary coarse silver sand from Leighton Buzzard. As far as results were concerned, I could see no difference between the flowers from these and from those grown in expensive mixtures, with one very surprising and important difference. In every case identical varieties were grown in soil or sand, and also in peat or fibre. In every case without any exception those in the former matrix bloomed some days before the others, and were every bit as fine and healthy, and they were just as easy to manage during their time of growth.

Passing on now to what can be recommended in addition to the list already given, I would suggest the following as being, all of them, suitable varieties from which a good selection for this purpose might be made:

Hyacinths.—Roman (pot the first week of September for Christmas bloom), Schotel (light blue), L'Innocence (white), General Pelissier (red), Jacques (blush) and La Victoire (carmine, expensive, but excellent).

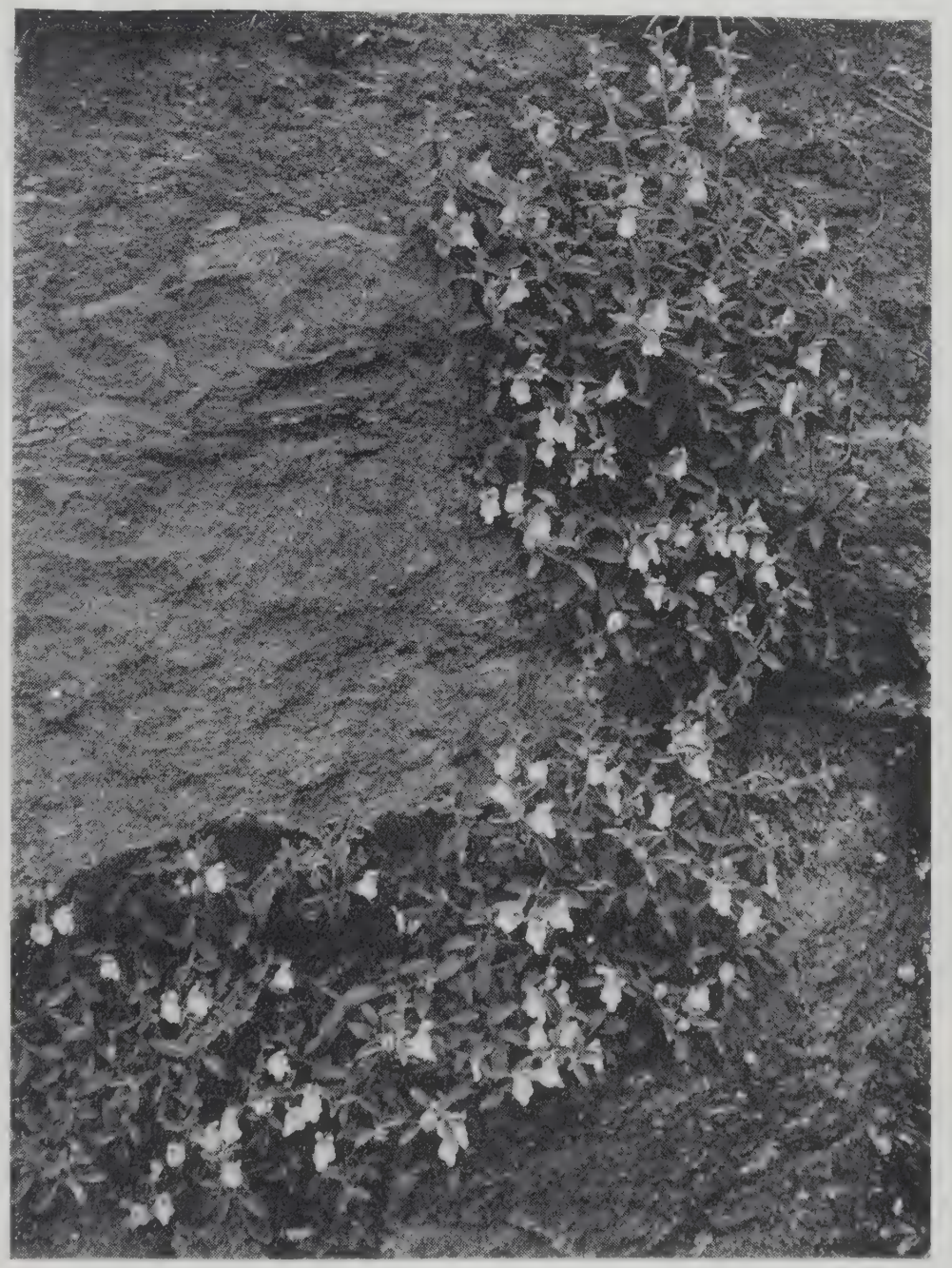
Miniature Hyacinths.—I like the small spikes of these so much better than the big, heavy ones of first-size bulbs that I grow very few but these now. The most beautiful bowl I have ever had was one filled with a new seedling of Polman Mooy's, Winter Cheer. I strongly advise a trial of these miniature Hyacinths to all who do not know them.

Tulips. — Prince of Austria (orange red, absolutely tip-top), Rose Luisante (deep rose), Vermilion Brilliant (scarlet), Yellow Prince (yellow) and Globe de Rigaud (deep mauve and white striped, a very pleasing change).

Daffodils. — Obvallaris (deep yellow, early, not large), Seagull (a grand new kind, white perianth, cup yellow, with an orange edge very often), Empress (bicolor trumpet), Fairy (grand all-yellow Ajax), Mrs. Langtry and Fairy Queen (two lovely pale small-cupped varieties), Crown Prince (lovely red-edged cup), Sir Watkin (giant yellow incomparabilis), Blackwell (splendid, yellow perianth, long cup suffused red), and Aspasia and Elvira (two lovely bunch-flowered and sweet-scented kinds).

Crocus.—Dorothea (a new lavender), May (white), John Bright (deep globular purple, the long-stemmed types fall over too soon) and Sieberi (a most charming little species, very cheap, and as it does so well in pots, it is worth a trial in fibre).

I have never found Snowdrops, Squills and Glory of the Snow really satisfactory, but I intend to try for late flowers some Wood Hyacinths (Scilla *campanulata*, not nutans). Excelsior (blue) and Rose Queen are two good companions to the white (alba). Joseph Jacob.



ANTIRRHINUM GLUTINOSUM AS A PLANT FOR THE ROCK GARDEN.

ANTIRRHINUM GLUTINOSUM.

Among the Antirrhinums, or Snapdragons as they are more affectionately known, are a number of beautiful species suitable for the rock garden. Not the least interesting of these is Antirrhinum glutinosum. This plant is found growing wild in the Spanish mountains. It is a low-growing or trailing subject of free-flowering habit. The flowers are small, of a yellowish white colour, with a deeper yellow lip and a suspicion of purple above. The plants come into flower during July and August when most alpines have long completed their good display. That the plants readily adapt themselves to their surroundings is clearly evidenced by the fact that those shown in the illustration had only been transplanted a matter of a few weeks before the photograph was taken

TREES AND SHRUBS.

A LITTLE-KNOWN GAULTHERIA.

(G. OPPOSITIFOLIA.)

THIS is a rare species recently introduced from New Zealand. So far very few plants are in cultivation, and it is yet too early to say whether the new-comer will prove quite hardy or not. One or two plants have been tried outside at Kew, but they have not taken very happily to their new surroundings. G. oppositifolia has not the neat-growing habit of its better-known relative the Partridge Berry (G. procumbens), for although it is low-growing, it is of rather straggling habit. Its season of flowering when grown in a cool frame or greenhouse is late May. The flowers are creamy white, but up to the present this species has not produced berries in this country. Should this plant prove to be hardy, it will doubtless become useful as an undergrowth or edging to other shrubs and trees. It is not really amenable to pot culture, owing to its straggling and somewhat untidy mode of growth. Like most members of the Erica family, it is at home when growing in a peaty soil.



A RARE NEW ZEALAND SHRUB: GAULTHERIA OPPOSITIFOLIA.

A NOTEWORTHY SHRUB.

(ZENOBIA SPECIOSA.)

THE Order Ericaceæ furnishes many very beautiful flowering shrubs, a number of which may be considered as the aristocrats of the garden, for they are of distinct appearance and of a highly decorative character without being coarse. The plant under notice may be considered as one of these, for it has a great many points in its favour. A native of the Southern United States, it forms a bush 2 feet to 3 feet high, with oval leaves and white bell-shaped flowers, which are borne in profusion from the leaf-axils of the previous year's growth. The flowers have a peculiar waxy appearance and are thick in texture, a fact which assists in prolonging the flowering period. The normal blossoming-time is the end of May and early June, but of late years the shrub has become popular for forcing. It is doubtful, however, whether it will ever be cheap enough to be forced extensively, for it is of very slow growth when young; consequently, a period of several years must elapse between the sowing of seeds and the plants being large enough to warrant their being forced. The variety pulverulenta is of even more distinguished appearance than the type, for its leaves are of a pretty glaucous hue. If seeds of this variety are sown, both the variety and the type may be obtained from them.

THREE GOLDEN-LEAVED ELMS.

PEOPLE who are keen on golden or variegated leaved trees can find varieties of both kinds to suit them among the Elms, for there are several with silver variegated leaves and at least three with golden foliage. Of the last-named, two are included as varieties of the common Elm, Ulmus campestris, and the other is a form of the Wych Elm, U. montana. The most vigorous of the three is U. campestris var. Louis van Houtte. This forms a handsome tree, and has the appearance of growing eventually to the same size as the type. The leaves are large and the majority golden; some, however, are a combination of green and gold. They keep their colour well throughout the year; therefore it is a good tree to plant in groups where a colour effect on an extensive scale is desired.

U. campestris var. antarctica aurea is a very different tree from the last-named, for it is not of vigorous growth and the leaves are small. It grows slowly into a tree 20 feet to 40 feet high, with a narrow head of very fine branchlets. The leaves are golden or green and gold, and keep their colour well. It may be used effectively where a small tree only is required, but is less imposing than the last-named. U. montana var. fastigiata aurea is characterised by a stiff, upright habit and large golden leaves. It keeps its colour well and is useful for positions where columnar trees are desired. It is sometimes met with as U. Dampieri aurea, U. Dampieri Wredei and U. Wredi.

D.

THE TOWN GARDEN.

BORDER PINKS.—Where "pipings" of these were secured in June or July and inserted in a cold frame, they should be now sufficiently rooted to admit of planting at any favourable opportunity. In those instances where "pipings" were not so secured at the period mentioned, cuttings, if taken off with a "heel," may be inserted without further ado. The former is the orthodox method adopted by many of the florists, and, where intelligently done, yields almost cent. per cent. plants for cuttings. In other words, the failures are few and far between, row upon row and line upon line, hardly without a blank, proving this up to the hilt. The essentials to success are moderately young points or shoots, to be sharply plucked from their sockets by a quick upward pull and inserted in a partially-shaded frame or hand-light without further preparation and with as little delay as possible.

THE SAME CLASS OF CUTTING or "piping" may still be selected for insertion, though at this later date preference would be given to the "heel" cutting above named as a time-saver alone. Indeed, the current season's growth taken by the "heel" any time during the present month would root readily, and may be planted out at any moment when rooted, which condition is usually clearly indicated by the progress and development of the heart leaves of the plants. One need hardly refer to the popularity of the Pink, its hardiness or its fragrance, its freedom of flowering or its simple cultural requirements, all of which are well known. It is, however, of importance that reference should be made to

THE SUPERIORITY OF THE CUTTING as compared to the divided plant, the latter producing flowers of decidedly inferior quality and, frequently enough, less abundant also. Apart from this, there is a freshness and vigour, as well as compactness, about the young plant that is lacking in the old, and for these and other reasons one would urge the perpetuating of such things by the more up-to-date methods named. Dividing the plants and for the sake of convenience burying their stems inches in the ground is by some considered a simpler way, but it is both slipshod and inferior, leading to no good result. To make the most of things should be the aim of all whose heart is in gardening, and there is no way better than the best.

ARUM LILIES.—Where these have been resting in pots without water during the past few weeks, the plants should now be overhauled and the soil thoroughly shaken from their roots or corms, divesting them at the same time of the small superfluous growths that appear round about them. The corms should then be repotted in good fresh loam to which about one-third of its bulk of well-decayed manure has been added, affording a little sand if the loam is of a clayey nature. Being great surface-rooting subjects, *i.e.*, producing a considerable number of root-fibres from the apex of the tuber or root, the latter should be buried 1 inch at least in the soil. It is important, too, to remember the moisture-loving nature of these plants, so that in the repotting, which should be firmly done, ample room is left for affording free supplies. It is very necessary, too, that ample drainage should be given, since stagnant and sour soils are abhorrent to these plants. When the potting is completed, give a thorough soaking of water and stand the plants in an open position for the coming weeks.

S. N. N.

GARDENING FOR BEGINNERS.

LAYERING CLEMATISES AND LILACS.

IF there is one thing that is more highly prized by the novice in horticultural matters than another, it is that of being able to raise plants for beautifying his garden without outside assistance. The layering of Clematis shoots may be done at any time during the summer months, and the present is a most suitable period for this work to be carried into effect. Layering is more often resorted to in the case of plants that are difficult to strike from cuttings, as well as in the case of subjects that fail to root readily. The advantage of layering the shoots of any plant is that they derive partial support or sustenance during the rooting process. Failure in such circumstances is exceedingly rare when ordinary care is observed. Nothing could be more simple than the layering of the Clematis. All that is really necessary is to scoop out sufficient earth to form a basin-like cavity of a shallow kind, and then to bend down the shoot it is desired to layer into the cavity, after having placed therein a layer of light sandy soil. If a joint of the layered shoot be cut halfway through, the rooting process is the more speedily accomplished; but, of course, this same joint must be pegged down securely in position and soil packed over and round the layered portion of the shoot if the result is to be quite satisfactory. Fig. 1 serves to illustrate how a shoot of the Clematis should be layered. The writer has seen excellent results from layered shoots of the Clematis that have never been cut in any way. Shoots of the present year's growth have been simply embedded and pegged down, and afterwards covered, and these growths have rooted thoroughly and well. Five-inch pots filled with suitable soil have been utilised for the same purpose. The joint has been slightly embedded in the surface soil, and a stone placed on the shoot to keep it in position while the rooting has been taking place, and capital young plants have evolved in this way. The rooted layers should be severed as soon as there are indications of progress, and these young plants may be put in a sunny position in the garden during October and November, or in February and March.



1.—A LAYERED SHOOT OF CLEMATIS.

With regard to Lilacs, which are known to botanists by the name of Syringa, a simple process of increasing the stock is that of removing suckers from the old plants. As a rule, these suckers are plentiful enough; they may be removed and be replanted at any time between October and February, when the weather is open, although I should be disposed not to interfere with the suckers during December and January. Budding choice varieties on the common species is a practice followed in many gardens and nurseries. Common species, too, are not infrequently grafted on the Ash in March or April. The layering of Lilacs is seldom observed nowadays, although this may be done quite satisfactorily and with comparative ease. Growths of the present season may be taken in hand, no matter whether they be sucker growths or otherwise. The same rule as to making a basinlike cavity for the reception of the depressed shoot should be observed in this case as was advised for the Clematises, and stout pegs for maintaining the layered shoots in position should be utilised. The proper way to make a layer is to first bend down the shoot, make a cut half through, from underneath with a sharp knife, then continue to cut up the centre of the shoot for 1 inch, more or less, this forming a tongue. The cut portion should be lightly pressed down to the soil, and then pegged down just below a point of the shoot where the cut was made. Cover with soil as shown in Fig. 2. Here, it will be observed, are two shoots pegged down in position. The shoot illustrated in the background has been notched with a sharp knife just below a joint, and when treated in this manner such shoots will root quite satisfactorily. When the layers are well rooted, they should be severed and then planted in prepared quarters elsewhere.

D. B. CRANE.

BLACK CURRANTS.

THE bushes should be thoroughly syringed directly all the fruit is gathered from them. Many inexperienced cultivators cut off the tops of the branches, with the result that quite a cluster of small, unripe shoots grow at the ends or tips. These late-formed shoots are quite useless; they obstruct both light and air from the main branches and the strong young shoots made early in the current year. Instead of cutting off the tops of all branches, cut out a few of the older ones entirely and prevent overcrowding. The bushes will be strengthened, the buds on those valuable young shoots made earlier in the season will swell up properly, and the prospect for next year's crop will be enhanced. The wise gardener will not wait until all the leaves have fallen off the bushes before commencing the work of thinning out the old branches, but will do it at once, for two reasons—first, because he can see at a glance which bushes are too much crowded; and, secondly, those main branches retained get the benefit of light, air and sunshine, and in this country we rarely have more sunshine than is good for fruit trees of all kinds.

B.

ENDIVE.

I HAVE seen many very fine plants spoiled during the autumn months owing to wrong treatment. The plants are grown well in the open border up to a certain stage, and then they are lost through excessive moisture when an attempt is made to blanch the hearts. From the present time onward all decaying outside leaves must be very carefully removed. Frequently these bad leaves are broken off, with the result that the stem portion rots and affects the whole plant. It is a good plan to clear away a small quantity of soil from the base of the plants which have decaying leaves on them; then it is an easy matter to free the plant entirely of all bad leaves. There are various ways of blanching Endive. Early plants may be tied up similarly to a Lettuce plant; but this method does not answer later on, as too much moisture gets among the crinkled leaves and causes decay.

The blanching of these plants in the open border is a comparatively easy matter in cases where the soil is naturally dry and well drained; but in gardens where a heavy, retentive soil obtains, the plants are best carefully lifted and replanted in cool frames placed on a raised border. The plants may be packed almost close together, the outer leaves touching each other; but the soil used must be rather dry and form a sloping border in the frame, so as to prevent any water lodging there. Some water must be given to settle the soil around the roots and to maintain the freshness of the plants; but it should be applied on a fine morning, and the frame-light must be kept off until all the leaves are dry.

SHAMROCK.



2.—LAYERING LILAC SHOOTS.

THE ROSE GARDEN.

THE SUMMER PRUNING OF RAMBLER ROSES.

ALTHOUGH this marvellous season has discouraged to a large extent the production of new growths, yet we find in many parts the plants have grown remarkably well, especially the wichuraiana Roses. I do not advise the wholesale discarding of old wood from the wichuraiana Roses as with the multiflora tribe, because they will produce good growths and blooms from the two, three and four year old growths that cannot be expected from the multiflora group; but, unless there is ample space to spread out the growths, it is well to discard a lot rather than to allow what remains to be smothered. It is found by the best growers that the most beautiful trails of bloom are produced on the ripe annual growths and from the thriftiest of the two year old growths if these latter have their laterals cut back hard in March. Where the wichuraiana Roses have been neglected for some years, now would be the time to give them a good thinning out, taking care to preserve from injury the well-developed growths of this summer's production. I find it an excellent plan where these Roses are upon disconnected arches to run a wire or two between each pair of arches and just tie on to them one of the best growths. This can be done so as to form a perfect screen without in the least reducing the effectiveness of the arches. If the Roses are upon pillars, put another pole or two close to the pillars and clothe these with growths also; then what remains over may be cut away. The multiflora tribe, represented by Crimson Rambler, Blush Rambler and Mrs. Flight, should be severely relieved of their old wood, relying solely upon the young ripened growths of this year for next summer's crop of flowers, which should be well tied out so as to complete their ripening early. If time permits, old-fashioned summer-flowering Roses could be gone over and an old branch or two cut away. These Roses are often sadly neglected in this respect, and no Roses pay better for careful attention to small details. About the end of September will be time enough to look over the Hybrid Perpetuals. By that time many old growths will have served their purpose and may then be discarded. By having not more than five or six growths to a plant, each growth will have an opportunity of becoming well matured before Christmas. P.

ROOT-RUN FOR CLIMBING ROSES.

GENERALLY, when one contemplates placing climbing Roses near a wall or building, a considerable amount of trouble is taken in preparing the ground; but if we are to go by the results often found in the case of cottages and many buildings with a brick or stone pathway running close up to the wall, leaving absolutely no room for a border or even an inch of soil except the small portion occupied by the Rose stem, it would seem that such trouble was quite unnecessary. I do not mean to advocate this apparent neglect of all preparation and culture; but do we not often find such specimens thriving in an almost incomprehensible manner? We find the old Banksians, Ayrshires and heaps of others that would apparently need more room, culture and feeding than the other classes of Roses. But they certainly do not have, and never have had, this attention in many cases that have come before my notice. At the present time—and what is really the instigation of these remarks—there is a grand plant of Félicité Perpétue near me that is full of growth and flower. The plant is enormous in size, and has been there for a great number of years. The occupier says he has never touched it with knife or spade, nor fed it. Indeed, the last two operations, so frequently insisted upon by the average Rose-grower, would be quite impossible. How are we to account for this? I can only suppose that the warmth of the pathway, whether gravel or bricks, was in some way congenial to the older roots at the base of the plant, and that the rambling, feeding roots had got beyond the pathway into the better soil usually found among the various subjects growing on the other side of the narrow walk. But then we not infrequently find such grand specimens growing where almost the whole of the yard or surroundings is paved, and this greatly discounts the first theory.

We find other subjects besides Roses thriving in such positions, such, for example, as Wistarias and Figs. I am not saying that all the preparation given before planting Roses in these positions is wasted labour; but it does occur to me that if the situation is correct and the soil naturally suited to the subject, we often spend more labour than is necessary. I have seen other Roses besides Félicité Perpétue thriving in the same manner, and not all of them such strong growers as William Allen Richardson, Gloire de Dijon, Mme. Alfred Carrière, Ards Rover and others with large flowers. Instances of Mme. Lambard, Anna Olivier, Marie van Houtte and Caroline Kuster are not unknown, and doubtless readers can call to mind cases that have come under their own notice. Can they give any reason why one may afford every help that seems possible and yet fail comparatively, while in such cases as I have noted the plants grow as freely as any Briars in our hedgerows? A. P.

NEW PLANTS.

ALTHOUGH the usual fortnightly exhibition of the Royal Horticultural Society was not held on Tuesday, August 15, yet the committees met to consider new plants which might be brought before them. No awards, however, were made by either the fruit and vegetable or the floral committees, but the following awards were made by the Orchid committee:

Cattleya Rhoda Illuminata.—A variety remarkable for its colour harmony and beauty. The sepals and petals are of salmon rose, suffused and bordered with orange. The lip is of large size, heavily tassellated and bordered with crimson magenta, the tubular portion, which is of rich golden orange, rendering the variety more conspicuously beautiful. Exhibited by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Trichopilia Lehmanii.—The sepals and petals are distinctly serrated and slightly undulate, some 2 inches in length and of the purest white. The labellum, which is also white, is about 1½ inches broad, and rendered conspicuous by a golden orange centre. The plant carried four racemes and a total of twelve flowers, the latter being delicately perfumed. Exhibited by Sir Trevor Lawrence, Bart., K.C.V.O., Burford, Dorking. Award of merit.

Gongora leucochila.—A curiously beautiful and interesting species, of which the sepals are white within and violet purple without. The labellum is cream to ivory white, with a large oval violet blotch near the base. The drooping raceme carried seven of its curious triangularly-formed flowers. Exhibited by Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Sophro-Cattleya-Lælia Goodsonii (Sophro-Lælia heatonensis × Lælio-Cattleya Luminosa).—The sepals and petals are acutely pointed, 3 inches or so in length and coloured reddish carmine, the lip being of an intense ruby crimson. A charming and distinct variety. Exhibited by H. S. Goodson, Esq., Fairlawn, West Hill, Putney. Award of merit.

CHRYSANTHEMUMS

SEASONABLE HINTS.

IT is a common sight in these times to see Chrysanthemums as well grown for the furnishing of the greenhouse and conservatory as for exhibition purposes. If there is one stage of the growth of the plants when they are more interesting—from a cultivator's point of view—than at any other, it is now, when the buds are swelling up and giving good promise in many instances of large and beautiful blooms. The actual growth of the plants has now almost ceased, that is, the stems of the plants will not lengthen much more, but they will increase in thickness and the main leaves in substance. The strength of the plants will be mainly concentrated in the development of the flower-buds, and it is the satisfactory or the unsatisfactory progress of the latter that the cultivator must watch.

"Taking" Buds of Incurved and Japanese Varieties.—Second or late first-crown buds of the Japanese section must be secured as quickly as possible now, but all side shoots should not be removed on one date. Remove only one or two at a time, so that the bud will continue to swell without being checked. The present is an ideal time for the "taking" of buds of the incurved section. Of course, no cultivator, however clever he may be, can have buds of the right kind available just on a particular date, as so much depends upon the weather conditions throughout the whole summer season. An approximate date only can be given, and the period embracing that date may extend to about a fortnight. If buds are secured during that period, they are nearly all likely to develop into very fine flowers in due course. A crown bud is one that is surrounded by young shoots, and the "taking" of the bud means the removal of the young shoots and retention of the bud which is expected to grow into a large bloom. A terminal bud is one that is surrounded by a number of smaller buds, not shoots, and the terminal bud is "taken" when the cultivator has gradually removed all these smaller side buds.

The Value of the Buds.—If a bud is taken too early, it is a very long time in developing, and rarely does so freely. The petals are numerous enough, often too numerous, very short, narrow and badly coloured. A bud taken too late for the particular variety possesses few flower-petals, but they are generally broad and highly coloured, and the bloom, as a whole, lacks substance. If a bud be taken at the right time for the particular variety, it has a full complement of good points when the

plant is well grown. The petals are of normal width and substance, highly coloured and just numerous enough to build up a perfect bloom.

Insect Pests and Tying.—The earwig is the most troublesome of all insect pests that the grower has to deal with. It works at night and hides away in the daytime. Hollow Bean-stalks act as traps if they are fixed among the leaves of the plants. Every morning the stalks should be examined and any earwigs in them blown out into a pailful of water. They may also be caught and killed at night, as they get to work between eight o'clock and midnight. The plants must not be shaken, but carefully examined with the aid of a candle or lantern. All shoots bearing flower-buds must be tied out to their fullest extent consistent with proper form, so that air, light and sunshine may ripen the leaves and stems. All shoots should be made secure to the stakes with ties close up to the top, otherwise nearly 1 foot of stem must be left free. Whereas 3 inches or 4 inches of untied end of shoot may be blown off, a length nearly 1 foot long, independent of the stem of the bud, will not be broken.

Feeding.—Weak doses of clear manure-water, alternating with similar ones of soot-water and artificials, may be given at every watering now to healthy plants. Those whose leaves are at all yellow must not be fed so freely for a time. Maintain the soil and roots in a consistently moist state. Avon.

NURSERY NOTES.

ROSE BUSHES IN THE MAKING.

WITHOUT doubt a number of readers, especially those who live in or near large manufacturing districts, have no idea of the large tracts of land required to produce the Rose plants for their gardens, nor can they conceive any idea of the labour entailed in producing them. For it must be remembered that there are thousands of growers in the country who want to replenish or add to their stock yearly.

It was my good fortune during the Rose season to journey to Dereham to see where and how Hobbies, Limited, build up their enormous stock of plants. Genial Mr. John Green and his son Reginald gave me a hearty welcome, and soon I was in "the thick of it." Yes; thick of it was right in more senses than one, for very shortly after entering what is termed the home nursery, one is buried in standards of varying heights. There were scores upon scores of them towering 10 feet to 12 feet high, just bearing their first season's flowers of the many kinds of ramblers. I will not bother the reader with names; if I were to I should only have to repeat the firm's catalogue. Suffice it to say they grow only those which experience leads them to believe are the best of the older types and the choice new kinds in all classes. It rather puzzled me how these were budded, and I learned that a couple of pairs of extra tall steps are required for the purpose. This year's weeping standards were not done when I was there, but there looked more of these tall Briars than had ever been done before. I asked Mr. Green how he managed to get such lengthy Briars, to which he replied with a smile, "Norfolk soil will grow things well."

A glance through the glass houses revealed thousands of pot plants which had been grafted earlier in the season, and which were now being hardened off to be subsequently planted out to strengthen. Next we walked to the Rose fields down the Norwich Road, right away from the town and railway into the pure country air Here it is that the dwarfs and further batches of standards revel. The first gateway abutting upon the main road greets one with a rambler on each post. The day was a warm one, and the writer began to calculate how many miles he would have to traverse to see only a portion of the glories of the enormous numbers of Roses stretched over those many acres, but the sight was so grand as to compensate one for the exertion. To give some idea of numbers, I casually asked Mr. Reginald Green how many Briars there were in a small field of seedlings just ready for budding. He coolly remarked that there were a thousand in each row, and I can safely say there were over a hundred rows. As I have said, this was only one field of several to be done; but what of the others and those done last season, which were now sending up their sturdy strong growths and forming such splendid plants to send out this autumn. It would take seven figures to enumerate them. Upon these seedling Briar stocks, Manettis and others, scores of men, each accompanied by a boy to clean off thorns and leaves, were putting in buds as quickly and deftly as possible. Others were tying up the growths of this year on last year's budded stocks to prevent damage by wind; others were cleaning the soil and aerating the roots, nothing being left undone which can help to make a clean, strong plant.

After we had strolled up and down rows of Hybrid Teas, Teas, garden Roses, Hybrid Perpetuals and others, I said to Mr. Green, "And will the public want all these Roses?" His eyes twinkled, and the reply came with an emphatic "Yes, and more. Last year we cleared, and orders are coming along well for this season." Such is the demand for the national flower, and a firm who have a reputation for building up such healthy plants and sending out such good quality true to name can rely upon plenty of customers. I thoroughly enjoyed my inspection of "Roses in the making" away in the pure air of an open country which seemed to invigorate both human and plant life. Amateur.

THE EDITOR'S TABLE.

Solanum Wendlandii from a Reader's Greenhouse.

From Mr. R. H. Legg, The Gardens, Melksham House, Melksham, we have received some handsome flowering sprays of Solanum Wendlandii. This beautiful plant, native of Costa Rica, is usually regarded as a climbing stove shrub, but our reader is very successful in its cultivation in a cold greenhouse, where it bears a profusion of its lilac blue flowers from the middle of July onwards.

A New Border Carnation.

There is something really striking about the new Carnation W. A. Watts that has been sent to us by the raiser of that name from St. Asaph, North Wales. The new variety possesses many good points. In the first place, the colour, deep rose pink, is vivid, yet pleasing, and it should prove of great value for table decoration, since, as the specialist would say, there is "life" in the colour, and this may be used with telling effect. Another attribute of this novelty lies in its precious gift of fragrance, and this is at once apparent, for the flowers, which are "non-bursters," are strongly Clove-scented. Moreover, the variety is a vigorous grower, making strong, upright and free-flowering shoots, together, we are informed, with plenty of grass around the plant, so that it may be very easily layered. It is a good all-round border variety, which bids fair to become very popular as soon as it is sent out.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* Publisher.

FLOWER GARDEN.

Sweet Peas going off (*W. P.*).—The disease has been very prevalent this year, and has caused great losses to Sweet Pea-growers in many parts. It does not seem to affect the common varieties so much as it does the newer and improved sorts. It is a fungoid disease, for which, so far, no remedy has been found.

Watering with hose-pipe (*Rodwell*).—One of the chief drawbacks and dangers to watering with a hose-pipe supplied direct from the service pipe is that the users of such things are not content unless they are driving a hissing, hard-forced stream of cold water at the feet and legs of unoffending plants, the work being done regardless of the time of day or the amount of heat at the moment. During times of great heat, such as have been experienced this season, the early evening, say, after 6 p.m., is a good time, and then the work should be thoroughly done. Peas of all classes are greatly injured if watered as above described, while if watered from a gully drawn a few inches from the row no harm ensues. The watering, however, should be done to saturation point. Lawns may generally be watered without injury, likewise hard-wooded subjects as trees and shrubs. Roses, if well saturated at the root once a week, would not require much overhead watering, a proceeding which in times of much heat engenders mildew.

Carnation seedlings (*C.*). — The blooms sent are a moderate type of border seedling Carnations. As ordinary border varieties they are worth growing, but they are not so good as the numerous named varieties now in cultivation.

Destruction of Violas and Dianthus (*R. T. G.*).—The insect pest you describe which feeds on these plants is, without doubt, the wireworm. The pest may be greatly reduced by persistently placing traps of sliced Potato or Carrot fixed to pointed sticks in the ground and examining these from time to time. Even with this precaution a few may escape and do much mischief. The pest is perhaps the worst enemy of the Carnation family, to which, of course, the Dianthus belongs. Where it is possible, the old-fashioned remedy of gas-lime is good, and if the beds are clear in the autumn and could so remain for a space of three months, this material may be freely applied. Assuming the beds or borders to be

more or less permanently cropped, the traps mentioned, in conjunction with hand forking and hand picking, will be found the best.

Montbretias gone off (*E. M.*). — There is no disease on the Montbretias. For some reason or other not evident they are ripening their growth without flowering. Were they planted late? The failing is not uncommon this year. Doubtless the long period of drought has something to do with it.

Curious change in Aconitums (*J. G.-A.*).—The change in the Aconitums may be due to reversion to type, or some plants of the blue kind may have been growing near from which the seeds may have dropped among the clumps of A. variegatum. In this case the vigorous seedlings may have crowded out the old plants and taken their place.

Number of flowers on a Sweet Pea spike (*Cottager*). — That stems of Sweet Peas are occasionally exhibited carrying five or six blooms all visitors to the most important shows know quite well. The proportion of these is, however, small, and probably ninety-six out of every hundred stems from the most successful growers carry four blooms. A perfect vase of fours wants a lot of beating.

Sun-scorched garden (*Drought*). — Your lot appears a hard one indeed, and as we know something of the nature of the soil in your district, you have our fullest sympathy. To have water at hand, and to be virtually precluded from making use of it without pains and penalties so severe as you describe, approaches very nearly to the dog in the manger theory, since the amateur in most districts can have his hose-pipe and water his garden on payment of a certain fee per annum. In the circumstances we can only advise you to read, mark, learn and inwardly digest the remarks in "The Town Garden" notes, to which you refer, and in addition, and as opportunity affords, deepen your soil and lay in a bed of cow-manure low down, so that the root-fibres are attracted from the surface. Above all things, studiously avoid the bed or border with raised or highly-manured surface, which throws off even the rainfall from the roots of the plants. Mulching in such a season as the present is excellent, and should not be lost sight of. For this purpose, if you can possibly secure it, you would find spent Hops of an even greater value than manure, since they are not only moisture-retaining, but less disfiguring generally. In the case of Roses and Carnations, flowers that quickly respond to sun-heat and as quickly feel the ill-effects of long-continued drought, you could only hope for more complete success by making specially deep beds and borders—by the excavation and discarding of some of the "foxbench" or allied subsoil where such occurs.

TREES AND SHRUBS.

Scotch Heather for New York (*Scotia*).—Your best chance of introducing Scotch Heather successfully into New York State is to obtain good strong plants which have been raised in a nursery. These may have their roots bound in damp but not very wet moss, and they may then be packed in a strong box. In packing, place a layer of plants along each side or end, with their heads pointing inwards. On the roots place battens nailed or screwed to the box. These must be firm enough to keep the plants from moving. On the battens other layers of plants may be placed and battened down in turn, and so on until the box is filled. Place a strong lid on the box and label it conspicuously: "To be placed in a cool part of the hold away from the boilers—Living Plants." Plants dug up from a common or hillside are not likely to travel so well as nursery-raised plants. They may be sent in October.

Pruning evergreens (*A. B. P.*).—The best time to prune evergreens is April, for at that period new shoots are soon formed, thus hiding any cut branches which may have an unsightly appearance. Hedges, however, may be clipped any time up to the end of September.

Caterpillars on Lilac (*Miss M. A.*). — The only way to keep your Lilac from being damaged by caterpillars is to remove the caterpillars when they are first noticed. This may be done by picking them off by hand or spraying the bush with an arsenical wash so as to poison them as they feed.

Rubus deliciosus seeding (*J. R. D.*). — There is rarely a year passes but that Rubus deliciosus ripens fruit. Some years a fairly good crop is ripened, at no time a heavy crop, while at others a few seeds only may be obtained. It is probable that local conditions may have something to do with this plant not producing good seeds. At any rate, in the course of twenty years' experience in the neighbourhood of London, there has rarely been a year when seeds could not have been obtained had they been required, while seedlings have frequently been hoed up with weeds beneath the plants. Seedlings from beneath the plants have also been used for stock from time to time.

ROSE GARDEN.

New Rose-bed (*E. D. C.*).—Roses revel in sunshine, and it is hardly fair to plant the newer varieties in your shady bed. The following might grow well, but as to their free flowering, we could not guarantee this, for usually Roses in shady places run to growth. As you would like some of the newer Hybrid Teas, we name the following: Mrs. Stewart Clark, Avoca, Lady Ursula, Colonel Leclerc, Dr. O'Donel Browne, His Majesty, Jacques Vincent, Kronprinzessin Cecilie, Laurent Carle, Lohengrin, Mme. Hector Leuilliot, Veluwezoom and W. E. Lippiatt. Most of these are strong growers, and you would find it best instead of pruning hard to treat them as pillar Roses, and by so doing they would be more likely to bloom freely.

Injury to Rose foliage (*D. M. M.*). — The Roses are attacked by mildew. Spray the plants once or twice a week with Jeyes' Horticultural Wash.

Old-fashioned Roses (*Ignoramus*). — With the exception of Mrs. B. R. Cant and Marie Baumann, we think the list a very good one. Of course, there are some of the more recent Roses, such as Lyon Rose, Mme. Melanie Soupert, Mrs. Aaron Ward, Marquise de Sinety, &c., that you would do well to add. Although we do not wish to condemn the new Roses, we must say that many of the old sorts still hold their own, especially in fragrance.

Rose buds injured (*M. P.*).—We believe the injury is caused by ants or earwigs. On some of the buds this was very evident. The other buds appeared as though they had been watered overhead when the sun was shining, or the brown marks may be caused by the heavy dews. If you try to entice the ants away by placing jars of syrup close by and buried up to the rim in the soil, we think you will get rid of at least one of the pests that are causing the trouble.

Newly-planted Roses (*Bottom Rung*). — You need not be alarmed at the poor quality of the flowers; it is attributable to the season. The plants needed a good soaking once or twice, and also some liquid manure applied. You may have done this, but not sufficiently. During such a drought it is best to mulch the beds with spent Hops or other similar material, then water well in the evening about twice a week. Read the useful hints on watering as given in THE GARDEN for August 5, page 367, and you may even adopt the plan now. A good book for you to study would be "Rose Growing Made Easy," published by *Country Life*, Limited.

Rose for new bed (*H. Y. B.*). — General Macarthur would be far superior to Commandant Felix Faure in the matter of free and continuous flowering. Hugh Dickson would be an alternative choice, but it is not so free in flowering, although a taller grower than either of the above. Prince de Bulgarie would do well for one sort for the bed, and instead of Viscountess Folkestone we should advise Mme. Leon Pain or Earl of Warwick. You could very well edge the bed with Polyantha Roses, as by keeping these cut back they do not encroach much on the other Roses. Of course, if you could conveniently make the bed 5 feet wide, we should advise you to do so.

FRUIT GARDEN.

Peaches falling (*G. R.*).—It is difficult to advise you with any degree of certainty in the absence of further particulars, but in all probability the fruits are dropping owing to the border being much too dry. The small fruit sent for inspection has the appearance of having fallen from an overcropped tree which has not received sufficient food or moisture, or, again, the tree may have been transplanted late in the season, which would impair this year's fruit considerably. The larger fruit sent is of quite good flavour and much more juicy than the former. We should say that there is nothing amiss with the tree from which this fruit was picked.

Newtown Pippin Apples injured (*E. J. F.*).—The injury to your Apples is the result of sunburn or scorching. It is not unusual with Apples grown against walls in such hot weather as we have had lately.

Disease on Gooseberries (*C. S.*).—The Gooseberries appear to have been attacked by the fungus Glœcosporium fructigenum. It may be prevented another year by spraying the bushes with Bordeaux mixture in May soon after the fruits are well set.

Diseased Pear leaves (*J. L.*). — The leaves are attacked by the Pear leaf blister mite, Eriophyes pyri. When only a few trees are affected, the leaves should be picked off early in the season, before the mites have had time to migrate to others or to the buds, and they should be sprayed, *while dormant*, with a wash made by mixing 3lb. of quicklime and 1lb. of caustic soda together, and slake with hot water in which 3lb. of flowers of sulphur have been well stirred. Stir the mixture and add 3lb. of common salt. Allow it to boil for some time, then make up to ten gallons.

Peach trees attacked (*A Regular Subscriber*).—The leaves of the Peach have been attacked by the common Peach aphis (Aphis amygdali). You will probably find that by this time they have all left the trees, as they migrate to some other plant, and it is therefore too late to do much good with them this season. Another year you will find if you spray with Quassia and soft soap, fairly frequently, as soon as the pest puts in an appearance you will be able to keep it in check, but the spraying must be thorough. Care should be taken not to confuse this aphis attack and the resulting crippling of the twigs and curling of the leaves with the leaf-curling due to the attack of the fungus Exoascus deformans.

Arch of fruit trees (*E. H. L. L.*).—A double-stemmed upright, cordon-trained Pear tree would, we think, prove the most satisfactory and remunerative for the arch in question. The Pear grows faster than the Apple, and by its habit of growth is more suited to the position. The Cherry, we are afraid, would be a source of considerable trouble when the fruit was ripe owing to the depredations of birds, and in the spring and summer from insect pests such as the black fly, to which the tree is subject. By planting one side of the arch with Pear Williams's Bon Chrétien, an early supply would be secured, and a later supply in December by planting the variety Doyenné du Comice on the other side. If Cherries are preferred, the varieties Black and White Heart are good. Handsome Apples to grow in such a position would be Lady Sudeley and Gascoyne's Scarlet Seedling. Any nurseryman advertising in THE GARDEN may be depended on to supply good trees, correctly named, and at moderate charges.

THE GREENHOUSE.

Treatment of Pelargoniums (*Novice*). — By Pelargoniums do you mean such as the show and decorative kinds? If so, it will be useless to attempt to get them in flower in winter. If Zonals, you might give them a possible chance, and the same applies to the Ivy-leaved varieties. To obtain the best results, take them in hand at once and pick off every flower and bud. Then give them a shift into some new soil and, possibly, pots a little larger, but care must be taken not to overpot.

Injury to Cinerarias (*Novice*). — Your Cinerarias are attacked by the leaf-mining insect, which often causes a good deal of trouble in the case of Marguerites and similar plants. This pest is in its perfect state a small fly, the female of which punctures the leaves and deposits her eggs in the interior. Directly the young grubs are hatched they tunnel about between the two surfaces of the leaves in quest of food. After a time the grub changes into a chrysalis, and, finally, the perfect insect emerges therefrom. One of the best preventive measures is the spraying of the plants with Quassia extract, while the Auto Shreds fumigant will kill many of the grubs themselves, even when sheltered within the leaf. In the case of the leaf sent, the pest had done its work and departed. Leaves in such a state are useless to the plant, and had better be picked off and burnt.

Greenhouse flowers for Christmas (*Novice*).—Some seeds may now be sown, the resultant plants from which will flower in early spring, and possibly a few of them sooner. Among such subjects may be especially mentioned Browallia elata, Clarkia pulchella in variety, Erysimum peroffskianum, Candytuft, Mignonette, Nemesia of sorts, Rhodanthe Manglesii, Schizanthus in variety and Stocks. Freesias and Roman Hyacinths potted now may be had in bloom by Christmas. Of such winter-flowering subjects as Primulas, Cinerarias, Cyclamen, &c., it is now far too late to raise seedlings, as the plants should be at the present moment well advanced. For early spring a good deal might be done by means of bulbs, such as Hyacinths, Tulips, Crocus, Narcissi, &c. These should be potted in September or in the first half of October, and covered with ashes outdoors till rooted, taking them afterwards into the greenhouse. Other hardy subjects will, if potted in the autumn, flower in early spring. They include Chrysanthemums, Spiræas, Dielytra spectabilis, Solomon's Seal and Lily of the Valley. Zonal Pelargoniums and Carnations, which are so much appreciated for winter flowering, need to be established in their flowering pots long before this.

KITCHEN GARDEN.

Marrow plants failing (*A. S.*). — There is no insect or fungus on the Marrows. No doubt the water supply is insufficient, though possibly insects to carry the pollen are not present in sufficient numbers. The bed should be so made that the water supply is regular and the plants at no time get really dry at the roots. There is no need to water along the stems, but syringing helps to stop the loss of water.

Onion and Carrot fly (*W. W.*). — Nothing can usefully be done to save Onions when once badly attacked by the fly. They would be best pulled up and burned. The method of dealing with this and the Carrot fly lies largely among preventive lines. Try the effect of watering along the rows with an emulsion of carbolic acid (one quart of soft soap dissolved in one gallon of boiling water into which one pint of crude carbolic acid is poured). Dilute this with thirty times its volume of water. Sprinkling sand moistened with paraffin along the rows is also useful. The practice of rotation of crops is very important.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

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ROSES FOR AUTUMN FLOWERING.

IN the well-cultivated modern Rose garden the display of autumnal flowers should be almost equal to that of summer. There will be but few of the rich crimson flowers represented chiefly by the Hybrid Perpetuals; but in the lighter shades found among the Teas and Hybrid Teas a richness and depth of colouring will be developed in the cool October days which is often absent during the hot weather of June and July, to say nothing of the longer period during which the flowers will remain in good condition.

In making a selection of varieties, it is best to avoid those with very full flowers, such as Bessie Brown, Mildred Grant and Kaiserin Augusta Victoria. Even Florence Pemberton, which is splendid in hot weather, is rarely satisfactory in autumn. The varieties enumerated here are selected mainly with a view to garden decoration, although many of them will produce blooms fit for exhibition.

Hybrid Teas.—Of pink Roses, perhaps the most generally grown is Caroline Testout, on account of its vigorous growth and large globular flowers. It may be grown either as a standard or bush, and should be but lightly pruned. Königin Carola is of somewhat similar habit, with rather lighter flowers, and is at its best in autumn. The old favourite La France is best grown in standard or half-standard form. It has a tendency to make a good deal of small wood, and therefore requires rather free thinning in summer. Gustav Grunerwald is of vigorous growth, with large rosy pink flowers shaded yellow at the base. Mme. Abel Chatenay, carmine rose, shaded salmon, is a profuse bloomer of somewhat straggling growth, and should not be severely pruned. Dean Hole, light carmine, and Earl of Warwick, salmon pink, are both good in standard form. Joseph Hill is a fine variety with large flowers of a salmon pink colour shaded yellow, which in autumn are suffused with a reddish orange tint. Darker colours are represented by Countess of Caledon, with large, full flowers of a carmine rose colour. The buds are produced in large clusters, and the plants should be rather freely disbudded. Camoens is invariably good in autumn, the bright rose flowers being produced freely. This variety should be very lightly pruned. Lady Battersea makes a good standard, and is valued for its long pointed buds of a cherry carmine colour, shaded orange. Marquise Litta is a variety requiring high cultivation, but when at its best is unequalled among the darker-coloured Hybrid Teas. It should be grown in bush form, cut back rather hard in spring, and some of the numerous buds should be removed. The large, full flowers are of a bright carmine, with vermilion centre. Grüss an Teplitz should be grown as a pillar Rose or in standard form. It requires very little pruning in spring, but some of the older wood should be cut out annually after flowering. Other good dark flowers are John Ruskin (rosy carmine), Liberty (velvety crimson) and George Laing Paul (dark crimson). Blush and flesh coloured varieties are represented by Admiral Dewey, a light, blush-coloured sport from Caroline Testout; Viscountess Folkestone, with large, loose flowers, creamy white, shaded flesh colour; and La Tosca, with similar flowers, but of more vigorous growth. The last two varieties make splendid standards. Clara Watson is a good autumnal bloomer, the flowers being pearly white with rosy peach centre. Antoine Rivoire is a vigorous, upright-growing variety with rosy flesh flowers. Prince de Bulgarie is of similar habit and colour, with large, full flowers, which in autumn are shaded with orange. It is a profuse bloomer, and requires rather free disbudding. Pharisaer is a vigorous variety, and makes a good standard. The flowers are rosy white, with salmon rose centres. Yellow varieties are not very numerous, and a true golden yellow is badly wanted. Gustave Regis, a tall-growing variety, bears semi-double flowers, which are of a yellowish buff colour in the bud stage, but almost white as the flowers expand. It is a profuse bloomer, and is best grown as a pillar Rose, requiring very slight pruning. Mme. Hector Leuilliot is a semi-climbing variety with large, full flowers of Gloire de Dijon shape, the colour being a deep yellow, tinted carmine. Mme. Ravary and Le Progrès are two good yellow varieties, but not very vigorous in growth; they require good cultivation, and are best grown in bush form.

Teas.—These are best grown in beds by themselves, and require a rather lighter soil than the other sections. Some of

the more vigorous varieties may be grown against low walls, and by this means flowers may be obtained till quite late in the year. Tea Roses should be protected in winter by earthing up the stems with dry soil, which may be removed when pruning in April. The darker colours are represented by Corallina, a strong-growing variety with rosy crimson flowers, freely produced in autumn; Princesse de Sagan, with small flowers of a deep cherry red colour; and Souvenir de Catherine Guillot, coppery carmine, with orange shading in the centre. Of pink and rose varieties, G. Nabonnand is one of the best, the colour being pale rose with yellow shading. Mme. Antoine Mari, rosy pink, with creamy white centre, and Mme. Lambard, salmon, shaded rose, are also good in autumn. The best of the white and flesh-coloured varieties are Hon. Edith Gifford, white, with flesh-coloured centre; Marie van Houtte, creamy white, edged bright rose; and Mme. Hoste, pale lemon yellow. Lady Roberts and Mme. Charles should be grown for their deep apricot flowers.

Hybrid Perpetuals.—Very few Roses of this class can be depended upon for autumn blooming. Victor Hugo, a moderate grower, with deep crimson flowers, requires liberal treatment, as does A. K. Williams, the flowers of this variety being deep carmine. Ben Cant is after the style of Victor Hugo, but of more vigorous growth. Mrs. John Laing and Mrs. Sharman Crawford are two good pink varieties, while Frau Karl Druschki resembles a Hybrid Tea Rose in the profusion with which its flowers are produced in autumn.

China Roses. — These are all good autumnal Roses, and are best grown in bush form, requiring but little pruning. The common blush China Rose is in bloom for the greater part of the year, and other varieties which should be grown are Laurette Messimy, rose, shaded yellow; Mme. E. Resal, coppery rose; Cramoisie Supérieure, bright crimson; and Ducher, pure white.

Climbing Roses.—In this section reliance must be placed mainly on the Tea, Hybrid Tea and Noisette classes. Gloire de Dijon is still one of the best, and Mme. Berard (fawn yellow), Bouquet d'Or (yellow, shaded salmon and copper) and Cheshunt Hybrid (cherry carmine) are three strong growers for planting against walls. The climbing variety of the old Bourbon Rose Souvenir de Malmaison is also very free-flowering on a warm wall. For arches and pillars Mme. Isaac Pereire, light carmine; Mme. Alfred Carrière, pure white; Zepherin Drouhin, silvery pink; Longworth Rambler, rosy crimson, and François Crousse, bright crimson, are all good. Gloire des Rosomanes should also be grown for its bright crimson, semi-double flowers. It should be borne in mind that climbing Roses, especially when grown against walls, require abundance of water in dry weather.

Erith. C. W. CAULFIELD.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 4.—Mansfield Horticultural Society's Meeting. Kelso Flower Show. Preston and Fulwood Flower Show (three days).

September 6.—Alnwick Flower Show.

September 7.—National Dahlia Society's Show at Crystal Palace (two days).

September 9.—Eddleston Flower Show.

Scholarships for agricultural research. — In connection with the scheme issued by the Board of Agriculture and Fisheries for the promotion of agricultural research and local investigation (see page vi.), the Board, in order to secure the services of a number of carefully-trained men, propose in each of the years 1911, 1912 and 1913 to offer twelve scholarships of the value of £150 per annum, tenable for three years. It is proposed that candidates for scholarships should be selected by a special committee, representing the institutions under whom the selected candidates will subsequently work. The award of twelve scholarships will be conditional on a sufficient number of thoroughly suitable candidates presenting themselves.

Royal International Horticultural Exhibition, 1912.—In connection with the great International Horticultural Exhibition, which is to be held in the grounds of the Royal Hospital, Chelsea, in 1912, a powerful Kent committee has been formed, consisting of the following: President: The Marquess Camden. Vice-President and Chairman: Sir Marcus Samuel. Mr. W. H. Bacon, Miss Edith Bradley, Mr. E. Bunyard, Mr. G. Bunyard, V.M.H., Mr. H. Cannell, V.M.H., Mr. G. D. Clark, Mr. M. J. R. Dunstan, Viscountess Falmouth, Mr. J. J. Hewitt, C.C., Mr. C. Igglesden, C.C., Mr. A. C. Leney, Mr. H. G. Mount, Mr. G. Reuthe, Mr. T. W. Sanders, Mr. J. G. Weston, Miss F. R. Wilkinson, Dr. George Wilkes and Mr. G. Woodward. It is hoped that the numerous horticulturists and gardening societies in the Garden County will cordially help in furthering the interests of the exhibition. It is proposed to hold meetings at various centres in Kent. Mr. Walter P. Wright, the County Horticultural Superintendent, is acting as hon. secretary. Copies of the schedule and other particulars may be obtained on application to him at The Grey House, Lyminge, Folkestone.

Garden sundries and the Royal International Horticultural Exhibition.—Plans have been prepared and arrangements are now organised for exhibitors of horticultural sundries to negotiate for spaces at the Royal International Horticultural Exhibition, to be held in the Chelsea Hospital Gardens from May 22 to 30, 1912. By the term "horticultural sundries" is to be understood all subjects relating to a garden other than plants, flowers, trees, shrubs, seeds and such-like. Garden-houses, garden furniture and ornaments, glasshouses, heating apparatus, implements, appliances, tools, manures, insecticides and garden recreations and games, &c., will be considered as sundries. Open-air spaces and spaces under canvas are both provided for. Plans, particulars and application forms can be had from Mr. Arthur J. Gaskell, Royal Horticultural Hall, Vincent Square, Westminster, London, S.W., to whom all communications respecting horticultural sundries should be addressed for the present. As the amount of space available for sundries is limited, those desiring the better positions are advised to write for particulars before September 30, on which date the information will be despatched to all simultaneously. A special jury will inspect the sundries exhibits, and will recommend awards.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Fellows of the Royal Horticultural Society and the International Exhibition. — Having received the wholehearted support of the Rev. G. H. Engleheart and of "A Fellow," I am emboldened to move further in this matter, but in what way it is early days to say, and perhaps little can be done until I hear further from the Rev. W. Wilks, who has written in reply to a further letter to him saying my letters will be placed before the Council on his return from his holiday. In the meantime I think it would be very useful if any Fellow of the Royal Horticultural Society who agrees with the view expressed by Mr. Engleheart and myself would write me to that effect. I cannot undertake to answer letters, but I will see that all correspondents' views are submitted to any meeting that may be hereafter called if sufficient support is forthcoming.—C. LEMESLE ADAMS.

Golden-leaved Elms.—In a recent issue you had an article on Golden Elms, about which your correspondent is not quite up-to-date. There is a large-leaved one of the Ulmus montana or vegeta tribe, canadensis aurea, which is most telling. The leaves are very large, clear greenish yellow, and the growth is most vigorous, suitable for a bold park tree. There is also a very beautiful golden yellow form, Ulmus cornubiensis aurea, which was first shown at Holland Park in July, 1910, and is a very distinct and strikingly beautiful tree or pruned shrub. As a tree it is suitable for positions where a large tree is unsuitable, as these Cornish Elms are very compact and neat in growth, forming naturally conical trees; in fact, they are among the best for towns.—GEORGE BUNYARD.

The autumn show of the National Rose Society.—At present the date stands fixed for September 14 whereon the National Rose Society proposes holding its autumn show. In the absence of rain, which most growers have experienced, the show on this date cannot but be a failure, and the officials would do well to postpone the show until the end of the month. There would be quite time to take a referendum from the usual exhibitors, if that were thought necessary. In the interest of the society and the general public the date should certainly be postponed, for it would be hardly fair to allow exhibitors from Scotland to dominate this show, which gives a very wrong impression.—P.

Seats in public parks and gardens. During the present tropical summer I have visited many of our public parks and gardens, and in several cases have been surprised that many of the seats for the accommodation of visitors are placed in the full sun, where it is absolutely impossible to take advantage of them. As most of the seats are movable, a little forethought would obviate all this, and thus prove a great boon to visitors. On August Bank Holiday I was in one of our public gardens where visitors were counted by thousands, and every seat in the shade was eagerly sought after; still, there were many in

full sun so hot that they could scarcely be touched, and it was therefore impossible to take advantage of them. This was from no lack of shade in which to place the seats, for suitable trees were plentiful enough in many cases close by. Of course, those who prefer to sit on the grass, or, rather, where the grass should be, are independent of all this; but for more aged persons the possession of a seat entails less discomfort than when compelled to rest on a lower plane.—H. P.

The leaf-cutter bee and Roses.—Referring to the Rev. C. W. Dixon's note on the leaf-cutter bee and Roses which appears on page 366, it may be of interest to know that this bee does not confine its attention to Rose leaves. I enclose some leaves of Spiræa Douglasii, from which I have seen the pieces in process of being cut. The size of some of these exceeds Mr. Dixon's measurements, being fully thirteen-sixteenths of an inch by half an inch. The latter would probably have been greater had not the bee encountered the midrib of the leaf; this doubtless accounts for the unusual shape to which Mr. Dixon refers. I may add that the bee has its nest in a window-box a few yards from the plant, and that the leaf-cutting has been almost entirely confined to one branch of the plant.—G. W. L. BARRACLOUGH, *Floraville, Woodford, N.E.*

—— For the last eighteen years I have been acquainted with the leaf-cutting propensities of this bee (Megacheile centuncularis), and all this time I have been familiar with the fact that she cuts out two patterns (oblong and circular) for the construction of her nest. Circumstances of convenience and possibility seem to determine where the bee will scoop out the tunnel in which to build the nest. Sometimes it is made in the lawn, and at other times in the softer parts of a gravel path. This year a bee selected a flower-pot standing in the garden, and as I saw her enter I made her a prisoner for the purpose of inspecting her handiwork. I carefully dug out the nest, and found one section completed and being filled with a mixture of pollen and honey for the sustenance of the young grub when it should hatch out. The nest was begun with two circular pieces of Rose leaf, which may have been intended for packing the end of the tunnel. Then followed twelve oblong pieces, such as that mentioned by the Rev. C. W. Dixon, page 366. These were built in from the inside, so that three pieces completed the cylinder, and ten out of the twelve had the apical portion of the leaflet at the innermost and closed end of the cell, the ends being neatly tucked in and concave, completely closing the end of the horizontal cell. The innermost of the oblong pieces of leaflet were gummed at their edges. A circular piece tucked in at its edges completed the construction of this section, and here the pollen and honey were stored, at first liquid and shining, but after a few days the whole mass assumed the colour of brown sugar, with the consistency of lard. No doubt this section would eventually have been closed with circular pieces of leaf had I not interrupted the operations. Only in one instance was the actual apex of a Rose leaflet used in the construction of the nest, thus showing how fairly regular or systematic the bee is in her operations. The varieties of Roses selected are those having fairly large, thin leaflets, such as those of Hybrid Perpetual, Hybrid Tea, Tea and Rambler Roses. So far I have not observed the small, hard leaflets of Dorothy Perkins, Lady Gay and other wichuraiana Roses being cut in this way.—J. F.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

LATE VINES.—There should not be much difficulty in thoroughly ripening Grapes in late houses this season. On the contrary, there may be some difficulty in keeping them from ripening too early. Here we discarded the use of fire-heat for several weeks during July and August. At this date the nights are too cold to entirely do without a little artificial heat, or moisture will condense on the fruit, which is very injurious to Grapes that are nearly ripe. The heating apparatus must, however, be carefully managed to prevent the pipes becoming overheated, as this will cause the Grapes to shrivel before the end of the season. See that the roots do not suffer for the want of water, which should be given early in the day, so that the atmosphere in the house may get dry before nightfall. Wasp netting should be placed over the ventilators to keep out wasps, which are very plentiful this season.

Midseason Grapes.—Grapes such as Black Hamburgh and Madresfield Court which are quite ripe should be shaded during hot weather, or they will quickly lose colour. It is a good plan where there are only a few bunches left in the house to cut them and place them in bottles in a cool room. The house then can be thrown wide open and the Vines thoroughly washed with the garden-engine every evening.

Renovating Peach Trees.—Trees which have been unsatisfactory should be lifted and root-pruned. If this work is carried out now and is done carefully and expeditiously, there need be little fear for next year's crop. A quantity of new soil should be prepared to replace the old. The Peach does not need a too rich soil, as it will cause the trees to make gross wood. Plenty of old mortar rubble should be used in making the new border. I do not advise the use of manure unless the soil is very poor. In this case crushed bones should be included. The roots may be cut well back, leaving the surface of the cut facing upward. Endeavour to lift the trees with a good ball of soil. Before replanting see that the drains are quite clear, and place a good quantity of drainage material underneath the new soil so that water may pass away freely. If the subsoil is heavy and retentive, it is a good plan to place a layer of concrete on which to make the new border. Ram the new soil firmly about the roots, and when all is finished give the trees a thorough soaking. Syringe the foliage two or three times a day, and shade from bright sunshine till the trees have recovered from the check.

Cucumbers.—A sowing may now be made for supplying fruits during late autumn and winter. Prepare a hot-bed of stable litter and leaves. The material must be thrown in a heap, and turned several times at intervals of two or three days to sweeten it before placing it in the house. Let the house be thoroughly cleansed and the walls limewashed. Put out the plants on mounds of turfy loam about 4 feet apart. All the Year Round and Dreadnought are excellent varieties for this purpose.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

STOVE PLANTS.—Increased ventilation should now be given with less moisture in the atmosphere especially where plants are required for house and table decoration. They will thus be less liable to injury from the dry conditions in the dwelling-rooms. Crotons, Dracænas and others that are liable to attacks from red spider should still be thoroughly syringed at least once a day, and where the pest has made its appearance, a weak solution of Spidacide is one of the best remedies I know. Liquid manure may still be supplied to plants that have their pots filled with roots, but its use should be discontinued some time previous to using them for table decoration, so that no offensive smell is carried indoors.

Crotons.—To finish off the colour of Crotons properly, they must now have full exposure to the sun and be kept near the glass. Cuttings of Crotons may be put in at this season, using shoots that have their growths fully matured. A close propagating-frame with a bottom-heat of 80° is necessary, the cuttings being inserted singly in small pots in a light sandy compost.

Dracænas may also be propagated at this time either by cuttings or from short pieces of the stem inserted in pans of sand. The latter furnish the most suitable plants for growing into medium-sized specimens for the following summer and autumn.

Caladiums have now finished their growth and the foliage is losing its brilliant colouring. Water should be gradually withheld as the leaves begin to fade; but during the resting period they should not be allowed to become so dry as to shrivel, nor should they be wintered in a low temperature.

Clerodendron fallax is one of the most brilliant subjects for conservatory decoration at this season. Plants from seeds sown early in the year, if kept growing freely in a stove temperature, should now be opening their flowers, and if moved to the conservatory will continue in flower till late autumn, when cold and dull days will cause them to fade. Seeds of this plant are often scarce and always expensive, so that growers would be well advised to save their own seeds. In spring old plants will soon show signs of starting, when, if cut slightly back, growth will be made which can either be treated as cuttings or the old plants may be repotted and grown on. These flower earlier than seedlings, and are best for providing a crop of seed, but the young plants produce much finer heads of flower.

Bouvardias should not be pinched after this date. The plants should be given ample room in the cold frames and the lights removed entirely at night, unless there is danger of frost. Liquid manure should be applied freely if fine flowers are to be expected.

Zonal Pelargoniums for winter flowering should now be allowed to develop their flower-buds, removing the plants to a warm, airy greenhouse at the first approach of cold or wet weather.

Chrysanthemums.—The buds intended for big blooms will now be all secured, and careful attention is necessary to prevent them being damaged by earwigs or green fly. The former must be trapped. The latter should be kept in check by dusting the affected parts with Tobacco powder in the evening and syringing with clear water the following morning. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FLOWER GARDEN.

GLADIOLUS TRISTIS.

THIS Gladiolus is very rarely met with in gardens, but is one of the most valuable species, since it is by far the earliest of all to flower, being at its best in the South-West from the middle to the end of April, long before the so-called early Gladioli of The Bride section are in bloom. It is said to be a native of Natal, but is perfectly hardy in Devon and Cornwall, even when planted only 3 inches below the surface and entirely unprotected by mulching through the winter. In Nicholson's "Dictionary of Gardening," G. tristis is said to have the three upper segments of the flower spotted with minute reddish brown dots; but this form is quite unknown to me. In THE GARDEN, Vol. LII., page 301, there appeared an illustration reproduced from a photograph, sent by Mr. Greenwood Pim, showing G. tristis with a band of purplish black stretching up the centre of each of the three upper petals. This form I know well, as it is the one that is apparently always sent out by nurserymen when G. tristis is ordered, all of my friends whom I have advised to obtain this Gladiolus having been supplied with it by different firms. This variety cannot for a moment compare for attractiveness with the pale sulphur yellow form entirely destitute of markings here illustrated. A coloured plate of this appeared in Vol. XXXVIII., page 58, of THE GARDEN, which, while giving a good representation of the individual flowers, depicts only two on a scape, whereas four or five blossoms, all of which are expanded simultaneously, are carried on strong flower-stems. The blooms measure 3½ inches across, and in the evening become delightfully fragrant, a group of twenty or thirty flower-scapes outside an open window scenting the night air with a Magnolia-like perfume, while a few brought indoors will scent a room. The coloured plate in THE GARDEN was named Gladiolus sulphureus, and Mr. Watson, writing on it, said, "The plant represented in the plate and called G. sulphureus is merely a large-flowered, self-coloured variety of G. tristis." He also said, "G. tristis is very variable. It is said to vary in the colour of its flowers from pure white to almost wholly purple." G. sulphureus, according to Nicholson, is a synonym for Babiana stricta sulphurea, a plant only 9 inches in height, whereas with me G. tristis grows to a height of 3 feet 6 inches, with the late Mr. Archer-Hind 4 feet, and in a certain Cornish garden I have seen it almost 5 feet high. This Gladiolus is one of the few Cape bulbs that apparently grow better in somewhat heavy and deep soil than in a light and sandy staple, as it never grows so strongly with me in such a soil as in the two other gardens, where the soil is deeper and heavier. To distinguish it from the other forms of G. tristis it should be named G. tristis sulphureus, or concolor. The leaves are Rush-like, about 3 feet in length, and when cut horizontally show a section like a Maltese cross in form. By the middle of July they are withered. G. tristis increases very rapidly by bulblets, and also by seed. As I invariably cut the flower-scapes as soon as the blossoms faded, I was unaware that it perfected seed; but in Mr. Archer-Hind's garden I found that the scapes had been left uncut, and that all were bearing seed. In the same garden numbers of self-sown seedlings were to be seen springing up around the parent clumps. The following year I allowed the flower-scapes to remain, with the result that I obtained about 200 seeds. Three fine colonies were exceedingly beautiful in this garden during the past spring. It is a pity that this charming and practically hardy plant does not appear to be procurable in the trade.

WYNDHAM FITZHERBERT.



GLADIOLUS TRISTIS IN A SOUTH DEVON GARDEN.

SWEET PEA NOTES.

THE GREAT PRIZE.—The history of the competition for the big money prize has been written in beautiful language times without number, and it is not my intention to describe the superlative beauties of the wondrous display, but rather to express the opinion that as a show of Sweet Peas the affair was something of a failure. Of course, the promoters could not foresee, when they urged the early sowing of seeds, that the weather would be almost continuously hot and dry, and that, therefore, the probabilities were that thousands of plants would have passed the power to develop perfect exhibition blooms by the chosen date. Whether this was appreciated or not, it is safe to say that out of the several thousands of bunches forwarded there were few of really outstanding merit, and none that would win a gold medal at the gatherings of the National Sweet Pea Society. There is no need for me to say that the premier bunch came from across the Border, for the story has been many times told; but, as far as I have observed, there has been no criticism of the winning bunch; the decision of the judges has been loyally accepted by successful and unsuccessful alike. This is precisely as it ought to be; but the mission of a writer is different, and he is justified in questioning the wisdom of an award when he regards it as contrary to the interests of the subject of which he treats. When I saw the stems in the winning exhibit, I rubbed my eyes in amazement and looked again to be sure that I had not made a mistake. I next made careful enquiries for the names of the judges, which were instantly forthcoming from one of the officials, and when I learned them I was still more astonished. All were well-known men in the Sweet Pea cult, and some of them rank with the greatest authorities of the flower in the world, Yet the prize had gone to a bunch containing as coarse stems as the most rabid enthusiast for size need wish to see. I was not allowed to handle the golden flowers, but it was clear that the blooms were very badly placed on the stems, and that they were flimsy and flabby through over-cultivation and the imbibing of excessive supplies of water probably sucked up after the gathering. The National Sweet Pea Society sets its face against coarseness—at least it is supposed to do so—and here we find some of its most important officials stamping as coarse a set as one is ever likely to see as the finest of a collection of about 10,000 bunches. It is the fortune of war, and I congratulate the winner, while at the same time expressing the opinion that she was very fortunate in securing the award. Those who were not so happily placed as to be able to visit the Crystal Palace to see the flowers for themselves have simply to turn to the pages of the illustrated morning papers of the following day to see in the reproduction of the leading bunch the placing of the blooms on one stem for the inclusion of which alone the bunch ought to have been passed over at once.

COARSENESS AT EXHIBITIONS.—While on the subject of coarseness in one instance, I may take the opportunity of alluding to it in a more general

manner. The charm of the Sweet Pea must ever largely lie in the beautiful pose of perfectly-formed flowers on a stem. Whether the number of blooms be three, four or more is immaterial; they must be so placed that the individual beauty of each can be seen at a glance, and there must be no ugly gaps between them. Stems with immense flowers extending over a length approximating to 1 foot are not uncommon at some shows, and in many instances they secure awards; but, as far as I have seen this year, there has been more severe condemnation for this fault than was apparent in 1910. It is well that it is so, and it is to be hoped that the powers that be will before next season formulate a standard of judging that will govern all judges at the "National" itself and at exhibitions of societies which are affiliated to it. We should then, perhaps, see more uniformity in the decisions of judges in various parts of the country, for I am quite sure that many of those adjudicating would be only too pleased to have clear and definite rules to guide them in making their awards. At present, except those who have collaborated with the leading experts, many judges do not know the points that go to make the perfect Sweet Pea.

A. B. ESSEX.

DELPHINIUMS AND THEIR CULTURE.

THESE hardy herbaceous plants are finding favour with the public more and more every year. One cannot wonder at this, because the flowers are very showy, are produced over a long period, and the plants are exceptionally easy to grow. They will succeed in almost any kind of soil, and are good plants for town gardens. Although the plants are so accommodating, they give splendid returns for good cultivation. Whatever the quality of the soil may be, it should be very deeply dug or trenched before any roots are planted. The poorest soil must be enriched with rotted manure, and the best should receive surface mulchings occasionally. The most favourable time to plant is in the autumn, from the middle of September to the middle of November, and again from the middle of February to the end of April.

The roots should be put in to form clumps of three or five near the back of a herbaceous border or in rows in a similar position; isolated plants also look very beautiful. The average height of the plants may be taken as 4½ feet. The roots of Delphiniums are very numerous, so it is advisable that ample space be allowed between the specimens at the time of planting. A good average distance is 3 feet, but the tallest and strongest growing varieties should be 4 feet apart. The dwarf sorts may be about 2½ feet asunder.

As the stems are all cut down in the autumn, it may appear to the inexperienced to be unnecessary to give these plants any attention during the winter and early spring months. Unless the crowns are protected from the ravages of slugs, the spikes of blossom will be sadly marred in the summer, and only the late early autumn spikes will prove at all satisfactory. A nice coating of dry, sifted ashes must be put on to a depth of 1 inch before the slugs have a chance to get near them. In clay soil slugs are very troublesome It may be necessary to renew the coating of ashes in the early spring to tide over the growing shoots, which will be safe when they are about 2 inches high. Before the plants have had time to suffer through over-dryness of soil during the summer months, they must be well watered and subsequently mulched with rotted manure. Neat staking also improves the appearance of the plants, and if the earliest spikes are cut out directly the flowers begin to fade, fresh but smaller spikes will grow freely on strong plants and give the cultivator a good display of blossom late in the season. The following are all good varieties: Lovely, beautiful light blue; Sir Edward Fry, dark blue; Sir Wroth Lethbridge, deep blue, with white centre, a grand spike; Paragon, royal blue, very double; Star of Langport, delicate sky blue, white eye, single flowers; Viscount Kitchener, light blue; Monarch of All, violet and purple, with brown eye, semi-double, large flowers and spikes; Brilliance, bright sky blue, semi-double; Dusky Monarch, dense blue, large branching spikes, distinct; and Viscount Melville, blue and soft pink, white centre.

AVON.



A WELL-FLOWERED COLONY OF GENTIANA FREYMANIANA.

A FREE-FLOWERING GENTIAN.

IT is a common failing with some of the Gentians, notably the beautiful species G. verna, that while making satisfactory growth under cultivation, they are extremely shy in producing flowers, and can rarely be induced under artificial conditions to blossom as they do in Nature. This failing, however, does not apply to Gentiana freymaniana, a comparatively rare species closely resembling G. septemfida. The flowers are intense blue, borne in clusters of usually four on stems less than 1 foot in height. The accompanying illustration shows this plant growing and flowering in the rock garden at Kew, where it has this season been the subject of interest and admiration among the lovers of alpine flowers. Like all other Gentians, it is sensitive of root disturbance. Plenty of moisture in the growing season and a soil thoroughly well drained seem to suit it admirably.

FIFTY GARDEN DAFFODILS.

IT is a matter of considerable difficulty in making up collections of Daffodils for particular purposes to know what to omit and what to include. After a good deal of thought I have finally come to the conclusion that I cannot do better than submit a list which would be satisfactory to myself, even if it contains one or two idiosyncrasies and omits other varieties which will make readers wonder what Jacob "was thinking about to leave them out." For the purpose of ready reference I will deal with them in order according to the 1910 classification.

Trumpets.—Astra is a low-growing and free-flowering Ajax. It is a self of a deep shade of "Nelson" yellow. I find it most useful for front rows or places in the herbaceous border where a dwarfer kind is wanted. Cornelia is a tall, vigorous plant of a delightful shade of soft yellow, with a large shapely trumpet neatly frilled at its edge. Coronet is a delightful bicolor, on the small side, and with an extra deep-coloured trumpet. It would make an effective and striking contrast to the magnificent Duke of Bedford, which is undoubtedly a fine flower and one of the most effective of bicolors. Its perianth measures 4½ inches across. Emperor and Empress are too well known to need any description, and too popular not to be included in the smallest collection. Golden Bell is one of the most floriferous Daffodils, and a very rapid increaser. As an early variety it is especially useful. It has a pale perianth and a deeper-coloured trumpet. When a massive-looking flower is wanted for any particular purpose, commend me to Glory of Leiden. It is surprising how this appeals to ordinary Daffodil people. It has a poor, rough-looking bulb, but this is nothing to go by in this case. J. B. M. Camm must never be omitted if a low-priced pale bicolor is to be included. It is a flower of excellent form, and if it can be put under partial shade, the delicacy of

its colouring is much enhanced. Mme. de Graaff is the flower that heralded the approach of a new and far more robust race of white trumpets than any that had been in existence before its advent. It is a good doer, but not very tall, and the blooms are not very long-lived. Now we have better things, one of which is Weardale Perfection, a pale bicolor of refined form and large proportions, a tall and robust grower, and in every way a garden plant "of the first water." The variety, however, which above all others is destined to supersede the now universally popular "Madame" is Florence Pearson. I believe it to be one of the small and select band to which I should apply the phrase "great Daffodils." Constitution, fertility, appearance, growth and power of increase are all just what are most wished for in a garden flower. It is one of the expensive kinds in my fifty, but I feel that £3 spent on a bulb now will be money well invested. Outpost is a very good thing, in the way of Emperor, but much earlier, and on this account valuable for succession. Olympia is probably but little known. Its size and colour make it an important flower where garden effect is the point aimed at. It always caught my eye when I went to my Daffodil-beds this spring.

Incomparabilis.—The only expensive one that I have included is the lovely Bernardino. Few Daffodils are more lovely and few are better doers. Its large creamy perianth and beautiful apricot orange cup appeal to everyone. As is the case with Florence Pearson, it is a rapid increaser. Then there are the well-known Sir Watkin and Frank Miles, both good, well-tried varieties, which, with the newer but equally excellent Solfatare, make up a useful trio of the all-yellow type. The latter is a very lasting flower, and its soft shade of yellow makes it very distinct. I couple with it, because it keeps in good condition so long, Constellation. It is the old Cynosure come back to life in better clothes. Blackwell, Torch and Gloria Mundi are three red cups, each in its own way particularly good—for earliness, Blackwell; for effectiveness and retention of colour, Torch; and for impressiveness, the grand, richly-suffused orange red cup of Gloria Mundi. Lucifer is a red cup of quite a different type. It is a dwarfish grower, with an all orange red cup and longish white perianth segments, which seem thin, but which, nevertheless, hold their own in any sort of weather for many days. Whitewell and Lady Margaret Boscawen are two big massive flowers of great utility in gardens. The former has a widely-expanded cup of orange yellow with a stiff, imbricated, ivory white perianth, and holds its head well above its foliage. The latter has a small trumpet-shaped cup and a broad, snowy white perianth.

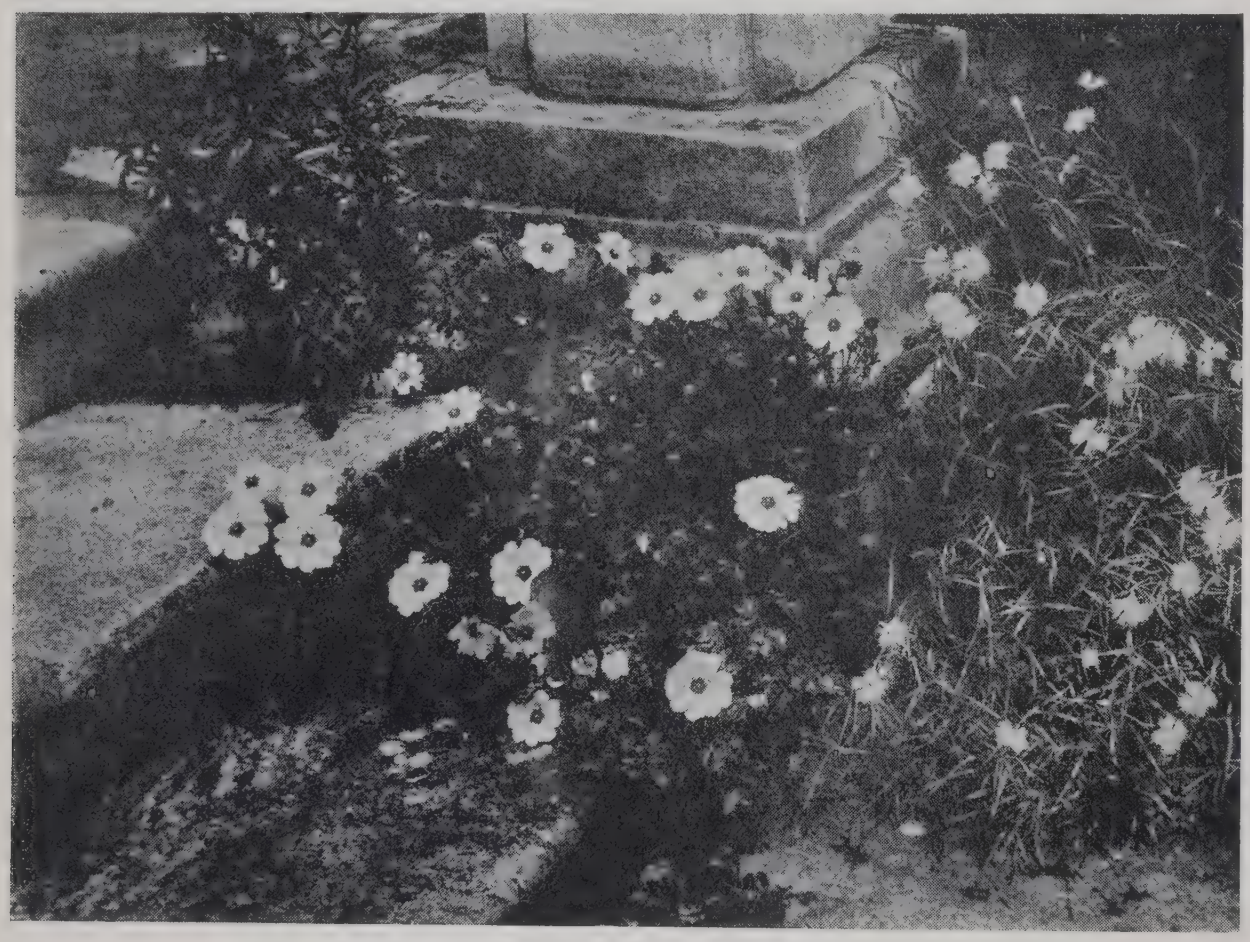
JOSEPH JACOB.

(To be continued.)

CISTUS FLORENTINUS.

THIS is one of the most useful of this charming family for forming a low, flat bush, or hanging over a stone, or, as shown in the accompanying illustration, at the side of stone steps. It is now regarded as a hybrid form, its parents being monspeliensis and salvifolius, and this is borne out by the fact that it is quite sterile, producing no seeds. It is so easily propagated from cuttings in the early autumn that it need never become a scarce plant. The purity of its white flowers, with yellow centres, is well set off by the becoming rich green of the leaves. Of course, the sunnier and better drained the position, the finer specimen it will make; but I find it one of the least exacting of its family. It is unfortunate that many beautiful species are not hardy. In cold localities it is advisable to plant at the foot of a wall with a southern aspect. They well repay any extra care and attention. It is best to renew the plants every three or four years, as older ones are liable to die off suddenly and leave unsightly gaps.

Waltham Cross. E. A. BOWLES.



THE ROCK ROSE (CISTUS FLORENTINUS) IN MR. E. A. BOWLES'S GARDEN.

COLOURED PLATE.

PLATE 1433.

ANTIRRHINUMS.

BY the popular, easily-pronounced and readily-remembered name of "Snapdragon" the Antirrhinum is recognised wherever the English language is spoken. By long acquaintance and association, as it were, one may be pardoned for regarding it as an almost essentially English flower, so accustomed has one become to seeing it in many a cottage garden or adorning, with its sturdy perennial tufts, the summit of many a fine old buttressed wall, or rendering doubly beautiful or picturesque rock or ruin or castle tower in positions where for years probably the plants have held undisputed sway.

To garden effectively one must needs foresee the end from the beginning—the well-flowered beds from the ordering or sowing of the seeds. That this is brought within the realm of practical horticulture so far as the Snapdragon is concerned no one, I think, with knowledge of the subject will attempt to gainsay. You may garden with pink or white, crimson or yellow, in tall, medium or dwarf, with every confidence as to the results, a confidence, by the way, that need not be shaken even though an occasional seed has in some unaccountable way strayed from its rightful place.

In dealing with the Snapdragon we are dealing with what is virtually and practically a hardy herbaceous perennial, yet one which is amenable to treatment either as an annual or biennial. For example, the seeds may be sown in gentle greenhouse warmth in January or February, and if grown on in pots and hardened off in frames, would be fit for transferring to the open garden in May for flowering in the ensuing August and September. Or seeds may be thinly sown in the open in July or August, to be either transferred to their flowering quarters as soon as large enough, or to be transplanted in rather poor soil for the winter, to be bedded out in spring.

A lover of comparatively poor or stony soils, it is important to observe that the Snapdragon does not often relish being fed on the fat of the land, and is, indeed, but made gross and tender and robbed of much characteristic beauty and freedom of flowering when planted in over-rich soils. Apart from this, the one most important item culturally is to keep the seedlings moving from the start, and allow ample room for development according to the varieties grown. The tall varieties attain to about 3 feet in height, the intermediates to about 18 inches, and the dwarfs, or "Tom Thumb" varieties, to about 9 inches in height when fully developed; and now that seed saving and selection has attained to such perfection, it is possible to obtain these types, as also their varieties, practically true to their kind. There are also varieties having striped flowers, and others distinguished by such descriptive colour names as Golden Chamois, Orange King, Cloth of Gold and the like. Moonlight, that figuring in the coloured plate in the present issue, is a new variety raised by Messrs. Dobbie and Co., Edinburgh, and belongs to the tall or majus section of these highly popular flowers. The dominant colour tone is a beautiful apricot yellow, with slight flushings of red on the upper parts of the flower. It is a handsome and striking variety, one destined for a large share of popularity because of its distinctive beauty and charm.

E. H. JENKINS.

ANTIRRHINUMS

DOBBIE'S MOONLIGHT



THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN SEPTEMBER.

DURING this month the amateur cultivator has the satisfaction of seeing the majority of the berries of various sorts assume that deep blue-black colour in the case of black and that rich amber in the case of white varieties. A few white varieties are never very pleasing as regards colour, even when they are properly ripened; but so few of them are grown that it is not at all necessary to dwell on them. Mrs. Pearson, a grand late white variety which keeps for a very long time, sometimes turns to a rusty green colour if the bunches are ripened very slowly and late in the season in a low temperature. Although the flavour is not much impaired, the general appearance of the bunches is marred. The variety White Tokay resembles Muscat of Alexandria to a great extent; it is a fine Grape and colours well. Dr. Hogg is another very satisfactory variety, and should be grown along with White Tokay where amateurs have a difficulty in growing that prince of white Grapes, Muscat of Alexandria, to perfection. The last-named is unsurpassed when properly grown and finished, and exhibitors cannot dispense with it. The berries always finish a grand rich amber colour when the Vines are grown in a fairly high vinery. In a low structure the cultivator must be very capable to get that much-to-be-desired finish. The inexperienced grower may not know exactly the stage when the berries of these Muscats commence to ripen. Up to the end of the stoning period (that is, the time when the stones become quite hard) the flesh of the berries remains firm; but when they begin to mature it softens, and so, by pressing one or two berries between the finger and thumb, the owner can tell when the ripening begins. At this stage there is not much danger of the berries getting scalded, as this happens mainly while they are stoning, and some light shading may be necessary. In order, then, to get the berries well coloured, they must be exposed to the light and sunshine, but not suddenly. At first just move a few leaves to one side a little. At the end of four days expose the bunches still more, and continue to do this until the whole of the bunches are practically exposed. When the berries are richly coloured, put back a few of the leaves over them, so as to just break the direct rays of the sun and thus prevent scorching of the skin of the berries if the Grapes are to be kept for several weeks after they are fully coloured before being exhibited.

Many persons think that late Grapes must be ripened late in the year; this is a big mistake. Muscats, Alicantes, Gros Colmar, Lady Downe's Seedling and similar varieties should be ripened by October 10 at the latest if they are to be kept in good condition until the following spring, or even to Christmas. The end of September is quite late enough for the ripening process to be completed.

Although the white or amber coloured varieties are all the better for being exposed to the sunshine while ripening, the black-berried ones require the shade afforded by the main leaves of the Vines, and if the berries are exposed to the sun's rays after the colouring process is complete, they will quickly become slightly tinged with red. If a lighted candle is held at night immediately behind a bunch of black Grapes, and the berries still retain their black colour and do not show any redness in them, they are perfect.



ORNAMENTAL VINES IN ALDENHAM HOUSE GARDENS.

Watering, Feeding and Ventilating.—It would be a grave error to allow the soil to get very dry. On the other hand, it would be a mistake to keep on day after day damping the surface of the border regardless of the state of the weather. Such damping need only be done when the weather is very dry. Give sufficient water to thoroughly moisten through the whole of the soil in the border, and before it gets at all dry again repeat the watering. Feed judiciously until the Grapes have nearly finished colouring; then use clear water only. With regard to ventilation, this must never be neglected. Very often during the month of September we experience hot days, and at such times free ventilation without causing cold draughts to blow directly on the bunches, or on the Vines, will be highly beneficial. Cold draughts will cause mildew to appear on the leaves, and in bad cases on the berries also. In dull and cold weather the pipes should be warmed and the ventilation reduced accordingly. B.

TREES AND SHRUBS.

BIGNONIA CAPREOLATA.

I HAD not seen the above for many years until I came across a nice plant the other day growing on the south-east side of an old Surrey inn, the foliage looking remarkably clean and healthy, and the flowers produced in fair profusion. Bignonia or, as it is now generally called, Tecoma radicans, is fairly common out of doors, fine old plants being found alike in public and private places; but capreolata is not so hardy and, so far as I know, is confined to the South of England, where it is well worth planting in any collection of climbers. The flowers, which are reddish yellow, with the red more pronounced in seasons like the present, are long and funnel-shaped, the diameter of the funnel being smaller and the lip much less expanded than in the case of the stove and greenhouse varieties. The foliage is apt to be attacked by red spider in some seasons, necessitating copious drenchings to keep it in a healthy condition. Nice young plants can be secured quickly and easily by careful layering, *i.e.*, pegging the shoots, notched, into a bit of good soil, taking care the soil is kept on the moist side until roots are well on the move, and deferring severance from the parent plant until this root action is a well-established fact. A. G. B.

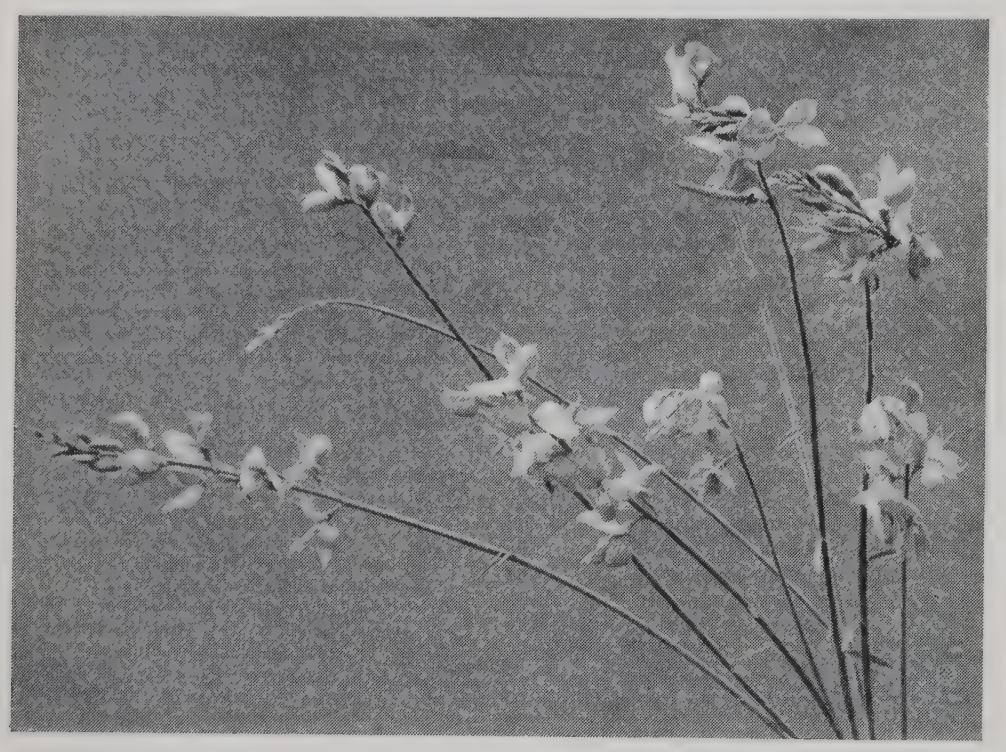
ORNAMENTAL VINES.

THERE are now in cultivation quite a number of highly ornamental species of Vines, many of which have been introduced during recent years. Most of them are of rapid growth, making many feet of new wood each season, and so are able to quickly cover buildings, arches, pergolas, columns, &c. Many of them also make handsome fruiting specimens, and last, but not least, take on the most beautiful tints in the autumn and retain their foliage until frosts cause them to drop. For covering poles and training on chains, with a little guidance and occasional attention, they are almost self-supporting with their own tendrils. Again, they are of hardy and vigorous constitution, their only drawback being that they are liable to become injured, when newly breaking, by late spring frosts, a fate sometimes suffered by many of our garden subjects. The planting is best performed just as the plants are on the move, so that they should be procured when in a dormant state established in pots. These plants like a good holding soil, preferably of turfy loam with which

has been incorporated a little old mortar or lime rubble and coarse sand, and the addition of bone-dust will be a great improvement. When growing and rooting freely in dry weather, growth will be much accentuated by occasional soakings of water and a sprinkling of patent manure watered in. On warm summer evenings, and also before the sun reaches them in the mornings, a syringing of the foliage will be beneficial. During the winter months a covering of sharp cinder-ashes will afford protection and prevent slugs gaining access to the buds when commencing to break. Where hares or rabbits exist, means must be taken to prevent them from eating the young foliage, of which they seem to be very fond, as far as they can reach.

Vitis Coignetiæ has been cultivated in gardens now for a number of years, and is well known. A native of Japan, it can, I think, be called the giant of the genus. The immense leaves, of thick texture, always command attention. It is of vigorous habit, and when autumn comes the foliage assumes most brilliant colourings of a variety of shades. As a plant for covering a porch or house with a south or south-west aspect it is invaluable. V. Thunbergii is another of robust constitution and has large leaves, the under side being covered with a dense tomentum. This, too, assumes vivid autumn tints. V. armata, a handsome Vine, is easily distinguished by its spinous stems. The leaves are of dark green throughout the summer, changing to red in the autumn. V. armata Veitchii, a recent introduction from China, is a distinct improvement on the former. It is most vigorous and the leaves possess a metallic lustre, which renders the plant highly ornamental; also very beautiful in the autumn. V. megalophylla cannot be mistaken. A native of China, this species has distinct leaf formation, large in size and bipinnate. It is also a vigorous grower, easily distinguished when in the dormant state. V. flexuosa Wilsonii has quite miniature foliage of a shining green and quite glabrous, but is a rampant grower and quickly covers its support. V. Brandt is also a vigorous grower and one of the best we have for fruiting. The leaves are green, slightly pubescent on the under surface, variable, but generally five-lobed and doubly serrate. V. vinifera purpurea has dark purplish-coloured foliage throughout the summer months, and as a subject for a pole or pergola has a telling appearance. There are several others of recent introduction, and where space permits nothing can be more interesting than a collection of them.

Aldenham House Gardens. EDWIN BECKETT.



FLOWERING SPRAYS OF THE SPANISH BROOM.

SPARTIUM JUNCEUM.

THE usefulness of this shrub for summer and early autumn flowering does not appear to be fully appreciated, for one sees it planted less frequently than the various Brooms which blossom in spring, and which have a comparatively short flowering season. It is well fitted for planting on poor soil, for it does really well in thin, gravelly loam and sand. When allowed to grow naturally it is inclined to become ill-shaped; therefore it is necessary to keep young plants pruned well back in order to secure a good foundation. If once a plant is allowed to get leggy it cannot be rectified, for if pruned back into old wood, new shoots are rarely formed. That it will stand plenty of pruning of one year old shoots is amply proved, for one sometimes meets with plants which have been cut back repeatedly with shears and formed into globes. Such plants bloom quite as well as those which have been allowed to develop in a more natural manner; hence it will be seen that pruning performed at the right time does not interfere with flowering. The earliest of the large golden blossoms appear in July, and the plants are usually at their best by the end of that month and early August. Flowers continue to appear, however, for many weeks. Seeds are borne freely, and they form a ready means of increase. Young plants must be kept in pots until they can be planted out permanently, for they transplant badly. A variety with double flowers is known, but it is worthless in comparison with the type. D.

THE TOWN GARDEN.

THE VALUE OF GREENERY.—During the unprecedented heat of the past weeks, one could but note the relative value of greenery in or about the garden, the more particularly in those gardens whose small size precluded the free use of any plant, much less any considerable variety. The outcome of these mental notes is that the common Virginian Creeper is without an equal, surpassing all else in vigour and freedom of growth, and seeming to delight in the long-continued heat and drought which have prevailed. Moreover, there have been apparent a coolness and freshness in its welcome curtains of green which all town dwellers must have appreciated to the full, and which has not been observed in any other plant. That this welcome freshness and leaf beauty has been produced by one of the best-known of garden plants renders it doubly valuable; the poorness of the soil and the conditions under which such lustrous vigour has been attained only enhance it.

THE VALUE OF SHADE has also been noted during the same period; not that of a dense, over-bearing character, but such as may be afforded by distant trees or those whose heads constitute, as it were, a thin protecting veil over the subject below. In such a place both the Sweet and culinary Peas have been far more satisfactory and enduring than where fully exposed to the intense heat, the water afforded having apparently been of much assistance, while just the opposite in the more open positions. Hence in our endeavours to garden it is well not to ignore the value of shade, since it not merely adds days or weeks probably to the life of the subject, but greatly minimises the tedium of watering, while giving freedom from the ill-effects of it where unintelligently performed.

PERENNIAL BORDER FLOWERS that were planted late in spring have suffered enormously, and in not a few instances, where the plants were small, have been killed outright. The herbaceous Phloxes and Michaelmas Daisies I have never seen in a more sorry plight. The four year old established clumps of the first-named have never produced a solitary head of blossoms worthy of the name, while those planted in the autumn of 1909 have in the circumstances been exceptionally fine. The obvious lesson here, then, is the value of maintaining perpetual youth in the subject, and this is best done by periodical planting and by a change of position, which is the equivalent of a change of soil. Phloxes of long standing which have been sorely tried by the heat will doubtless be much weakened at the crown also, the only remedy being an early autumn planting and the discarding of all that are of inferior growth. The Michaelmas Daisy more quickly recovers when the burden and heat of the day are past, but will doubtless give a poor display of flowers.

CHRISTMAS ROSES.—So long as these suffered but slightly by day and were seen to revive in the early evening, no attempt was made to water the plants, since which, however, generous soakings of water have been given. In doing this I avoid wetting the foliage, which I imagine assists disease germs to vegetate. Tufted Pansies have suffered most severely, and large numbers have been killed. Those that remain should be cut down without delay and encouraged to make a fresh growth from the base for purposes of propagation. Liquid manure will also be useful now, and will afford the plants increased vigour. A light mulching of manure will also be of service.

PROPAGATING BEDDING PLANTS.—The time is now ripe when cuttings of Zonal and Ivy-leaved Pelargoniums—the so-called bedding plants of so many amateurs—should be inserted. Avoid cutting away the good flowering shoots, but take in preference the smaller growths where these are more thickly placed. An essential to success is firmness in opposition to the sappy conditions prevailing in the stouter growths of the plant. Place six cuttings when made to a joint round a pot of 5 inches diameter and make the soil firm. The best place for the cuttings is a sunny position in the open. Avoid frequent watering; it is most harmful at this time. S. N. N.

GARDENING FOR BEGINNERS.

LIFTING AND TRANSPLANTING LILIUM CANDIDUM.

A FAIRER sight than irregular groups of this beautiful Lily in a well-tended cottage garden is hard to conceive, and equally pleasing results may be obtained in more pretentious gardens when due care is observed in the planting. An enthusiastic writer has very truly said that Lilium candidum "dislikes coddling or being meddled with, and thrives best when undisturbed for years in good garden soil." The writer has proved this to be a fact in his own garden, where the Madonna Lily has luxuriated for years. In periods of drought it is a good plan to give the clumps a thorough watering once a week, and at the present time any clumps that the grower does not propose to disturb should be mulched with thoroughly-decayed manure. So many growers fail with this beautiful Lily because they lift and transplant the bulbs at the wrong period. The Madonna Lily should be lifted and transplanted as soon as the old flowering stems are quite dead, at which time they should be cut down and the clumps be lifted forthwith. This would seem to suggest that late August and September is the time during which the planting should be done. The writer has planted as late as November, owing to special circumstances, and the plants have come through the ordeal satisfactorily and flowered well the following year. The earlier period, however, is much to be preferred, as this enables the bulbs to get established and make new growth before the hard weather sets in.

In lifting a clump that has been left undisturbed for some years, it is important that great care should be observed, otherwise some of the bulbs and offsets may get damaged in the operation. A fork or spade should be inserted all round the clump at a safe distance, and when the new quarters are quite ready the clump should be lifted, disturbing the soil as little as possible. Fig. 1 portrays an ordinary clump of Lilium candidum as lifted from the hardy border. A close observation of the picture will give the reader a good idea of the ready way this hardy Lily increases by offsets, so that in a few years an irregularly-planted clump may be represented by a dense mass of bulbs that will yield a grand display in the flowering season.



1.—CLUMP OF BULBS READY FOR TRANSPLANTING.



2.—METHOD OF PLANTING THE BULBS.

The bulbs may be separated with comparative ease, and each one with numerous fleshy roots adhering. The advantage of having the new quarters ready for planting is seen in the fact of transplanting the divided clumps, now represented by individual bulbs, before the fleshy roots can suffer from exposure. These bulbs are somewhat impatient of removal, and for this reason they should not be allowed to suffer in the slightest degree. The manner of planting is largely a question of taste. In the hardy border, where it is customary to plant the different subjects in groups or colonies, this hardy Lily should receive similar treatment. Plant the bulbs about 4 inches deep in irregular clumps of three, six, twelve or eighteen bulbs in each clump, adopting a method of arrangement much on the lines shown in Fig. 2. Allow each bulb ample space to develop its offsets. A space between the bulbs of about 6 inches answers very well. On the right of the picture will be observed a few of the smaller bulbs, showing the vigorous character of the roots at the time of dividing the clumps. Some growers prefer to plant this Lily 6 inches deep, but the writer is disposed to plant less deeply. Excellent results may be obtained by planting on the surface and just covering the roots. These results are easy to understand, as the natural character of these bulbs is for them to work their way near the surface when planted at any depth. The Madonna Lily succeeds in a variety of soils, though a moist loam suits it admirably. The bulbs seem to be less liable to disease when a small quantity of lime or old mortar rubbish is worked into the soil. This Lily is a universal favourite, and will do well in a sunny bed or border.

D. B. CRANE.

EARTHING-UP CELERY.

CELERY plants thrive best in a moist soil, and where plenty of water has been applied to plants during the recent spell of hot weather they have made good progress. If Celery is to be well grown, much skill must be exercised in its cultivation; it is a crop that tries the abilities of all inexperienced cultivators. The earthing-up of the plants is done in order to get well-blanched stalks, and, as a rule, eight weeks is a sufficiently long time for accomplishing the process of blanching. These remarks specially apply to those early crops that are required for household and exhibition purposes. Of course, it is necessary to leave the soil around the plants throughout the autumn and winter months for protection against frosts and adverse weather after the actual blanching has been completed.

A Mistaken Idea.—Many beginners are over-anxious about the work of earthing-up the plants, and commence it too early. They are under the impression that the heaping-up of soil to the plants causes the latter to grow more rapidly. It actually retards the growth if it prevents the water—rain-water and that applied through watering-cans—duly reaching the roots in proper quantities. Therefore, much careful thought must be given to the subject of earthing-up before the work is commenced.

How to Earth-up.—First, the cultivator must examine all the plants and remove every split outer leaf-stalk and young sucker found; then a thorough soaking of clear water should be given, and to effect this two applications are necessary, one each evening of two consecutive days. On the following and third evening a similar soaking of liquid manure, moderately strong, should also be applied. It will reach all the roots, and afterwards the soil should be heaped up and made firm by pressure with the hands.

SHAMROCK.

THE ROSE GARDEN.

EFFECT OF DROUGHT ON ROSES.

DROUGHTY and wet seasons affect the same varieties of Roses in peculiarly different ways. Last year the blooms of Bessie Brown attained various sizes, from small buds to those on the point of bursting; but in July all alike turned brown and rotted upon the stems without opening. The experience of some growers is that Mildred Grant behaves in the same way. With me, on a light soil, the blooms have never failed to open. Last year the blooms of White Maman Cochet reached full size, but did not open, though assuming a creamy hue and remaining sound for a long time. The early ones this year opened beautifully, but in August some buds assumed quite a deep rose tint, and three or four layers of petals retained this hue when fully expanded, and ultimately died away a crimson-red hue. The reverse of this high coloration was presented by the late flowers of Charles J. Grahame, which should have been very bright crimson, but were rosy pink instead. Last year Dorothy Perkins and Lady Gay were highly coloured and retained their respective hues for two or three weeks, but in both cases the flowers lost their bright hues in the course of a week in July last, and gradually dried upon the plants, many of them failing to drop. This latter case, as well as that of Charles J. Grahame, was doubtless due to the lack of moisture in the lower strata of the soil, where the roots are beyond reach of water artificially applied. This happened on northern and western exposures as well as southern, so that the sun alone was not responsible for the bleaching of the flowers. J. F.

USEFUL HINTS ON ROSE-GROWING.

ONE of the greatest charms attached to the writing upon gardening matters in such a widely-circulated medium as THE GARDEN is the number of friends one makes, and I have found here in England, as the horticultural experts found who this year visited the leading nurseries in the United States, that there is a delightful sort of Freemasonry among gardeners that enables them to communicate their knowledge for the benefit of their fellow-craftsmen.

Some months ago I had an article in THE GARDEN upon the parentage of certain Roses, and following that I received a most kindly letter from a reader, Mr. F. Kemp of Clapton. Mr. Kemp is one of the old school of Rose-growers, if he will forgive me for so describing him. He can carry his memory back to the days when Maréchal Niel was first introduced, and he is fully acquainted with the history of that wonderful Rose, which I hope to mention in a future issue. What interested me greatly in Mr. Kemp's letter was the statement that he could grow grand Roses near London—in fact, within three miles of the heart of London—and with only a small amount of spare time to look after them. Mr. Kemp rightly affirms that Roses require studying more and to be well fed. As he remarks, "It is no use sending a man to work sucking the same bone every day. He wants more food and good." He says he had shoots last season upon Hugh Dickson 10 feet long, and on J. B. Clark 12 feet. Mr. Kemp believes in good strong liquid manure, and in that he is voicing the late Rev. Foster-Melliar, who affirmed that Roses could drink, but they could not eat. I think the average amateur is afraid of liquid manure, and he had needs be careful if he uses chemicals; but liquid manure made from animal manure may be given to old-established plants quite strong.

A very successful amateur, Colonel Hore, is mentioned by that prince of Tea Rose-growers, Mr. A. H. Gray, in the "Rosarians' Year Book" of 1892 as one who believed in plenty of manure. He dug in 3 inches or 4 inches thick of rich farmyard manure in November, and in May and June gave his plants about three quarts of strong liquid manure each twice a week. The liquid was made up in large hogsheads, one part of the richest farmyard manure procurable to two parts of water. This was stirred daily and more manure added to keep up the strength. Another point strongly advocated by Colonel Hore was to stake every shoot, so that they grew his way, not their own way.

I thought a word on manuring would be helpful to amateurs around our large towns and cities. I you want good Roses, do not be afraid to feed them well and often, and do not forget that Roses against walls and fences require an extra supply. Always hoe the surface soil the next day. If it happens to be a heavy soil, a light mulching of some litter will prevent the watering making the soil hard, a condition very detrimental to good health in Roses. Very old trees are best prepared by making a few holes around them with a crowbar and then pouring in the liquid, and wherever the liquid does not enter the soil freely, fork it up lightly before applying the mulch.

ROSE MRS. JAMES WHITE.

COLOUR will ever play a most important part in the popularity of a Rose, although there are some individuals who would give form the precedence. In this lovely Hybrid Tea of Messrs. Hugh Dickson's raising we have a most unique Rose of deep, rich crushed strawberry pink. The particular shade of colour is not present in any other Rose, as far as I know, for there is a special tint one cannot describe. The backs of the petals are of a deeper colour, and as the petals reflex there is a paler shading which makes it very noticeable. The form is as perfect as that of a Camellia, and the growth is strong and branching. It has been beautiful with me as a pot plant, and I can recommend this Rose as a most distinct and pleasing novelty. It is one that does credit to the firm who have already given us such grand varieties as Hugh Dickson, Lady Pirrie, J. B. Clark and others. There is not much fragrance about the Rose under notice, although there is a delicate scent that may perhaps be strengthened according to climatic conditions.

LAURENT CARLE AS A POT ROSE.

THE glowing rosy crimson colour of this Rose and its delightful fragrance make it a grand sort to cultivate in pots, and there is such a healthy vigour, both in stem and foliage, that enables this Rose to defy mildew, and even green fly seems to leave it alone. There is a fulness in the flower quite sufficient for a pot Rose, and it is an especially good kind to grow in a cold house, the blooms then coming a wonderful size. We are now receiving from raisers some splendid rich-coloured sorts, so that our forcing-houses may be regarded as being well equipped with practically every desirable shade. One of the best pinks I have had this season is My Maryland, a real good Rose, likely to supplant many sorts now in use. There is a lovely peach pink shade, not seen in many Roses, and I am not surprised our American friends are going in strong for this variety. It is a fine grower, very free bloomer, and possesses a nice distinct fruity fragrance. P.

THE KITCHEN GARDEN.

TWO EXCELLENT LATE BROCCOLI.

TWO of the best late Broccoli for the spring are Veitch's Model and Sutton's Late Queen. Model is distinct and conical in shape, and Late Queen is dwarf and well protected, the leaves completely covering the curd. These two varieties cannot be beaten for quality. They may be termed somewhat erratic in their behaviour, since they do not always turn in at the time expected; but, on the other hand, they fail so rarely that they are invaluable to the grower.

Seasons alter the growth considerably, and under these conditions, to get as long a supply as possible, it is well to plant in different positions. This done, I have often observed that one quarter will yield heads several weeks in advance of the other. This is important, as even small heads of either of these good forms are valuable in such a season as we have had, and though small, their beautiful whiteness and fine texture are much appreciated. Broccoli of the Model and Queen type are not grown nearly enough. I know of no variety that equals them in hardiness. They are of great value on account of their dwarf habit, not only as regards room in the garden, but in a large measure this dwarfness enables them to escape the rigours of our climate. Both varieties have now been grown for many years, and they are likely to remain favourites, as I know of no recent introduction to equal them in any way. G. WYTHES.

WINTER GREENS.

EARLY in June I noticed in many gardens the old stumps of several kinds of winter greens. Now, if these old plants were still producing Sprouts, there would be some excuse for the cultivators having left them in the ground so late in the season, but they are not in the slightest degree remunerative. I know of some plants in the flowering branches of which birds built their nests and laid eggs. The plants, when flowering, were about 4 feet high. In numerous instances the old plants are left undisturbed until the ground is actually required for young ones. It is not good policy on the part of the cultivator to grow winter greens on the same plot year after year, but in many instances amateurs and others are obliged to do so owing to special circumstances. That good plants may be so grown I wish to assert, and, furthermore, to briefly explain how an inexperienced cultivator should set about the work. For ten years I was obliged to grow about two acres of winter greens on the same ground, and for very many years before such plants had been grown in the same quarter. After the various kinds of plants had done good service, they were cleared away without any undue delay, and the soil was immediately deeply dug, manured and salted. When very hot summers prevailed, I found that many plants "clubbed" badly, so I put on 1 peck of agricultural salt and 2 pecks of lime per square rod of ground and dug all in along with the manure. The result was most satisfactory; very few plants were affected. The salting was continued annually, the liming every two years. In my case the lime was needed on account of the ground having been charged year after year with so much organic manure. The soil had become sour and the "clubbing" of the plants aggravated. The salt tended to keep the soil

nice and moist in hot weather, and this was beneficial to the plants. Young plants of various kinds of winter greens must be put out directly the ground is ready for them and before they get stunted in their nursery beds. AVON.

ANSWERS TO CORRESPONDENTS.

ROSE GARDEN.

Parentage of Roses (*X. Y.*).—You are quite right in assuming that the names are "regularised," if we may use such a word. The maternal or seed parent is the first in the list, the paternal or pollen bearer the second.——(*E. F. Kemp*).—The parentage of Rose Souvenir d'un Ami is not known to the writer of the article. It is carefully guarded by the raiser.

Treatment of pot Roses (*H.*). — Pot Roses that are required to flower by Christmas should have been repotted in June, that is, supposing they needed repotting. But as that cannot be done now, we should advise you to have the plants top-dressed next month with a mixture of loam, leaf-soil, well-decayed manure and bone-meal in about equal parts. Prior to doing this, however, it will be well to give the plants a rest, that is, by withholding water for about three weeks, and to do this it is best to lay the pots on their sides. The day prior to top-dressing give the plants a good watering by immersing them in a bucket of water; then remove about 2 inches of the old soil and replace with the new compost, taking care to make the latter firm with a potting-stick. Stand the plants outdoors on a bed of ashes until the end of September; then prune and bring them into your greenhouse. It will take over three months from the pruning to the blooming, so that it is advisable to commence in good time, because one can always retard a little towards the end of December if necessary.

KITCHEN GARDEN.

Bitterness in Cucumbers (*E. S.*).—This is caused by a check to the free and healthy growth of the plants, either from sour and uncongenial soil or from the plants being partly worn out through continuous bearing. We have never known young and healthy plants to produce fruit with a bitter taste. Your best way to remedy the matter will be to thin out as much old growth of the plant as you can and clear away some of the old soil from the roots; then to top-dress with new fibrous, sweet loam and a little fresh horse-manure mixed with it. New roots in large quantities will soon form into this, and new growth on the plant, with the result that no further bitterness will be found in the fruit. The same result would be obtained by making new beds and sowing fresh seeds, but it would take longer in this way to produce good fruit.

Slight injury to Potatoes (*E. G.*). — The Potatoes are not attacked by black scab. Such scabby spots as they show are due to the attack of a fungus, and the attack is only skin deep. They should not be used for seed.

MISCELLANEOUS.

Derivation of plant names (*Miss S. H. M.*).—The name Hydrangea paniculata grandiflora is derived as follows: Hydrangea, from hydor, meaning water, and aggeion, meaning a vessel, in allusion to the cup-shaped fruit. The other portion of the name, viz., paniculata grandiflora, implies that the plant produces large-flowered panicles. We are not sure of the derivation of the name of the Rose mentioned.

Names of plants.—*A. J., near Penrith.*—Thalictrum flavum or Meadow Rue.——*C. C., Painswick.*—Clerodendron fœtidum.——*A. E. P.*—1, Scirpus cernuus; 2, Nerine Fothergillii major; 3, Tecoma jasminoides.

Names of fruit. — *Mrs. P., Oxford.* — 1, Brandy Apple; 2, Stamford Pippin; 3, Waltham Abbey Seedling; 4, Lamb Abbey Pearmain; 5, Alfriston. —— *M. H., Redruth.*—Apple Gladstone.——*E. S. B.*—Apples: 1, White Transparent; 2, Round Winter Nonsuch; 3, Stoke Pippin; 4, Reinette du Canada; 5, Warner's King; 6, Duchess of Oldenburg; 7, Tower of Glamis; 8, Bramley's Seedling; 9, Queen Caroline; 10, Cellini Pippin; 11, Mère du Ménage; 12, Hawthornden.——*M. E. S.*—Apple Early Strawberry.——*G. P. L.*—Both Apples are Irish Peach; the difference in ripening may be due to position, or the trees may be on different stocks.

SOCIETIES.

SHREWSBURY SHOW.

THE Shropshire Horticultural Society held its annual show at the Quarry Grounds on Wednesday and Thursday, August 23 and 24, under favourable weather conditions. The beautiful Quarry garden was looking its very best. We never remember seeing the flowers so bright or the grass of a more lovely green before. But there had been other combinations of a less pleasing character warring against the success of the show, one of them, the railway strike, going very near to compelling its postponement. Things looked very dark on Saturday night, letters pouring in all day from exhibitors cancelling their engagements on account of the disturbance on the railways. On the Monday morning the welcome news was received that the strike was over and business again resumed. This at once threw an enormous amount of work on the shoulders of the hon. secretaries. Every exhibitor had to be written to, informing him of the good news and exhorting him to fulfil his engagement at any sacrifice. We congratulate heartily and sincerely both the society and the exhibitors on the result of their labours in averting such a calamity under circumstances of what at the time appeared to be unparalleled difficulty. The show, although not quite up to the Shrewsbury mark, was, nevertheless, of such a representative character and the exhibits of such high quality as only Shrewsbury can show.

The other combination warring against the show which we had in mind was the extraordinary and unprecedented heat and drought of this memorable year, when all hardy August flowers were in bloom in July, and those left to follow in the usual course in ordinary seasons are scorched out of existence. As regards vegetables, those who know anything of the extreme difficulty surrounding the growth of these crops in this year of torrid heat and drought would not have been surprised to find a poor and washed-out attempt at making a show of these. Yet the result was wonderfully fine, especially in the collections.

PLANTS.

The groups of plants arranged for effect are always the chief attraction in this section of the show, and worthily so, too. The best that England can produce find their way here, and arranged as they are by such artists at the work as Messrs. Cypher and others, a more beautiful combination of form, colour and balance of artistic arrangement could not well be conceived; and yet, even with this perfection of artistic plant pictures, it would be a welcome innovation if some change in the arrangement and combination of plants could be initiated, for we practically see the same arrangement one year after another.

The new Class (5) introduced last year has not been a great success, although prizes of £25, £20 and £15 are offered. We think too much is asked for in the space at command, resulting in too much crowding and cramming of plants, &c. The class reads: "Group of herbaceous and perennial plants and flowers with background of decorative plants, Bamboos, &c., with rockery, pool of water, Nymphæa, water plants, &c., arranged for natural effect, to occupy a space not exceeding 250 square feet." If the class were confined one year to a rock and water garden combined only, a more pleasing result would follow, and probably a better competition; and then another year perhaps to a Japanese garden; another year to a garden of late Roses; and, again, why not a garden of Lilies? Such distinct and ever-changing miniature gardens as these would not only give intense pleasure to the many lovers of these popular flowers, but also be of considerable educational value to garden-lovers and students. Messrs. Gunn and Sons of Olton won the first prize with an exceedingly bright and interesting arrangement of plants, trees, Bamboos and flowers, which proved a centre of great attraction to the public. The second prize went to Mrs. Swann of Halston Hall. Perhaps the scheme in the arrangement of this group approached nearer to the intention of the framers of the schedule than did the first prize group; but it was over-weighted with material, giving it the effect of being too laboured and involved, although much of the material used was excellent.

The Shrewsbury committee cater well for the County of Salop, there being many classes confined to this county alone. Among them there is a class for groups of plants arranged for effect. There were six entries, the first prize going to Mr. Howson, Market Drayton (gardener, Mr. Townsend), for a prettily-arranged group of well-grown plants; second, Mrs. Burn, Shrewsbury.

Class 39 in our estimation was one of the most fascinating and pretty in the show, although only a very small one. It was for a collection of rock and alpine plants, arranged for effect in a space frontage of 10 feet. First prize, £10; second, £7 10s.; third, £5. The first prize went to Mr. J. R. Hayes of Keswick; second, Messrs. Caldwell and Sons. Shrewsbury is always great in specimen stove and greenhouse plants, an interesting relic left to us of the great shows of thirty years ago, and to be seen now only at Shrewsbury and a few other country shows, but never in London.

In Class 2 there were three prizes offered—£20, £14 and £8—for fifteen stove and greenhouse plants in bloom or foliage, not less than ten in bloom, Messrs. Cypher taking the first prize easily with a magnificent fifteen, Mr. Vause of Leamington being second. There was also a class for six stove or greenhouse plants in bloom or foliage, not less than four in bloom. Messrs. Cypher were again the winners of the first prize here, Mr. Vause being second and Mr. W. R. Manning third.

Class 3.—Thirty stove and greenhouse plants in pots not exceeding 10 inches: First, Messrs. J. Cypher and Sons.

FRUIT.

There were fifty-six classes provided in the open and county classes for fruit, with prizes amounting approximately to upwards of £274.

In Class 70, for decorated fruit tables, it is stipulated that each collection "shall consist of thirty dishes of ripe fruits in not less than ten distinct kinds, each to be staged on separate tables of 10 feet by 4½ feet, the varieties of fruit to form each dish to be left to the exhibitor's discretion, but not more than fourteen bunches of Grapes allowed in, not less than four varieties to include black and white, and not more than four varieties of any one kind of fruit nor more than two dishes of any one variety, only one variety to be shown on a dish, but not more than four dishes of any one kind of fruit," the prizes being £20, £17, £10, £8 and £5, with a silver challenge cup value £25, to be won three times, but not necessarily in succession. Mr. Barnes of Eaton being the winner this year for the third time, the cup becomes his absolute property. We heartily congratulate Mr. Barnes on the persistency of his efforts and on his success in now winning the cup outright with one of the best and handsomest collections ever set up at Shrewsbury. His Grapes were superb, especially his Muscat of Alexandria and Madresfield Court. The other dishes consisted of Grapes Chasselas Napoleon and Appley Towers; Apples Gascoyne's Scarlet, Cox's Orange Pippin and Emperor Alexander; Peaches Belle Bauce, Dymond and Royal George; Nectarines Humboldt and Pineapple; Pears Doyenné du Comice, Marguerite Marillat and Triomphe de Vienne; Plums Transparent Gage, Figs and Morello Cherries, the total number of marks awarded being 278½, including those for excellence in the floral decoration of the table. The flowers used on this occasion were Odontoglossum Alexandræ and Lilies chiefly. Mr. Goodacre was a good second with an exhibition of superb fruit and a delightful arrangement of cut flowers, his points being 258½. The third prize fell to J. H. Drake, Esq., Market Rasen (gardener, Mr. W. Parker), with 238½ points. Lady Henry Somerset took fourth prize, the fifth prize going to Mr. Mullins of Eastnor Castle Gardens.

The next class in importance in the fruit fixture of the show was that for "twelve bunches of Grapes in four or more distinct varieties, but not more than four bunches of any one variety." Of these there were ten collections. We have seen finer collections of Grapes in the aggregate at Shrewsbury than were to be seen this year; nevertheless, there were some splendid examples on view, Madresfield Court especially being grandly shown, also Black Hamburgh; but those of Muscat of Alexandria generally were below the mark. The first prize was won by the Duke of Newcastle (gardener, Mr. Barker); second, Lord Rowallan, Ayr (gardener, Mr. Dixon). Only half a point separated the second from the first prize. The only Grape to receive maximum points was in this collection, a perfect specimen of Muscat Hamburgh. Mr. Goodacre was third; fourth, Mr. Parker of Market Rasen; fifth, Miss Webb, Newstead Abbey (gardener, Mr. Ireland); sixth, Lord Belper (gardener, Mr. W. H. Cooke).

In the class for four bunches of Grapes there were four competitors, the prizes being awarded as follows: First, Lord Harlech (gardener, Mr. Lambert); second, C. Tangye, Esq., Knowle, Birmingham (gardener, Mr. Wilkins); third, Lord Trevor, Brynkinalt (gardener, Mr. Dawes). There were also classes for Black Hamburgh (two bunches), the first prize going to the Duke of Newcastle; second, Lord Harrington. For Black Muscat varieties, Madresfield Court won the first prize for Colonel F. Hayhurst (gardener, Mr. Hall). Madresfield Court: The same gentleman secured the first prize in this class also.

Any other Black Grape: Here Gros Guillaume secured the first prize for Miss Webb of Newstead Abbey (gardener, Mr. Ireland). Muscat of Alexandria: Here there were nine competitors, the Duke of Westminster securing the first prize for two excellent and shapely bunches.

In the class for any other white Grape, the first prize was secured by J. Buchan, Esq., Huyton (gardener, Mr. Oldham).

In the class for the heaviest bunch of Grapes, the Duke of Westminster won with a magnificent bunch of Gros Guillaume weighing 7½lb., the finest bunch of this grand old Grape we have seen for a long time.

The fruit classes provided for the County of Salop brought forward a goodly display of fruit, the competition being keen in many of the classes.

VEGETABLES.

These presented a very agreeable surprise to many gardeners, especially to those from the South, both in quality of growth and in the number exhibited. Nurserymen's classes were keenly competed for.

Messrs. Sutton and Sons' class for nine dishes was won by Mr. Gibson of Welbeck with magnificent examples of Onions, Leeks, Celery, Cauliflowers, Tomatoes, Runner Beans, Peas, Carrots and Potatoes. Mr. Gaiger, gardener to H. T. Tatham, Esq., was a good second.

In Messrs. Carter's class for six varieties, Mr. G. W. Robinson of Burton-on-Trent was first; Mr. Gaiger second.

Messrs. Webb and Sons' class for nine varieties was well contested, the first prize going to Mr. Hudson of Leicester.

Messrs. Clibran and Son's class for twelve dishes only brought two entries, the first prize going to Mr. J. W. Barker, and the second to Mr. G. Edwards of Wynnstay.

Robert Sydenham, Limited.—In this class for eight dishes there were four entries, the first prize going to Mr. J. H. Pugh, Newtown; second, the Rev. J. Davies, Stackpole Rectory.

An honorary exhibit from the Hon. Vicary Gibbs (gardener, Mr. Beckett), consisting of 100 dishes, added much to the attractiveness of the vegetable tent and was greatly admired. A large gold medal was awarded.

Messrs. Dickson and Robinson's class for nine dishes brought together an excellent competition, the first prize going to Mr. Arbuthnot, Newtown Hall.

TRADE OR NON-COMPETITIVE EXHIBITS.

Of these there were many beautiful examples. Messrs. Veitch and Sons, Limited, of Chelsea, exhibited a group of stove and greenhouse plants, Palms, Orchids and Pitcher Plants, such as have seldom been seen in the provinces before. The plants were of the rarest and choicest kinds and the culture of the highest order, the arrangement being most artistic and pleasing.

The King's Acre Nurseries had one of their now well-known collections of fruit trees in pots. It was generally remarked that they had excelled themselves on this occasion, and this is high praise.

Messrs. Sutton and Son's collection.—This consisted of a magnificent array of vegetables, fruit and flowers. Arranged as they were with such excellent taste and judgment, they commanded a full measure of admiration. Among the flowers the Gloxinias and Begonias were especially fine, the former being good-sized plants, bearing a profusion of large blooms, all the growth of little more than four months from the time the seeds were sown.

Messrs. Hobbies, Limited.—This firm had a lovely collection of standard and weeping Roses, the ground underneath being also carpeted with Roses.

Messrs. Edward Webb and Sons.—The collection exhibited by this firm consisted of fruit, flowers and vegetables, the quality of the whole being first-class and the arrangement delightfully pleasing. Their Sweet Peas for the season were marvels of vigour and freshness.

Messrs. Baker of Wolverhampton exhibited an interesting collection of Antirrhinums in various shades of colours and of dwarf habit. These plants have been found invaluable this year, as they succeed in spite of the heat and drought better than most plants in the garden.

Mr. Amos Perry of Enfield exhibited a choice selection of Delphiniums and hardy Water Lilies.

Messrs. Dicksons', Limited, of Chester exhibit was much admired; it consisted of Lilies, Roses, Gaillardias, Lupines, &c., very lightly and pleasingly arranged.

Messrs. Dobbie and Co.—The Sweet Peas exhibited by this firm were superb for the season, as were also their Dahlias.

Messrs. Dickson and Robinson of Manchester.—This firm were represented by a most pleasingly and artistically got-up collection of various Lilies and an extensive collection of Carnations; also an excellent Melon of their raising named The Manchester.

CUT FLOWERS.—COMPETITIVE CLASSES.

It is very commonplace to begin to write about the weather, but the exceptional period of fierce heat and scorching winds through which we have just passed has so altered matters that this year, at all events, it is not commonplace to do so. It is essential to mention it to account for the difference in quality and, to some extent, in quantity, of exhibits in the cut-flower classes. Only the old can remember such a time; only such a well-tried and well-officered show could have come through the ordeal as Shrewsbury has done.

Sweet Peas, which usually are such a feature, were three; but no Thomas Jones, no Robert Bolton, no Sydenham, Limited—verily the play of "Hamlet" with Hamlet left out.

Carnations, too, were not what we usually see. Messrs. Young and Co. of Cheltenham had a fine lot in grand condition; and Messrs. M. Campbell and Son of Auchinraith Nurseries, near Glasgow, had some beautiful blooms in Class 44. Elizabeth Shiffner (rich orange buff), Bobs (orange, suffused red) and Mary Wilson (mauve on buff) were all noticeable. In Tree Carnations Mr. C. J. Waters was easily first with some fresh, well-grown blooms; Georgia, a new white, looks a good thing.

Annuals were good. Caccalia coccinea (Venus' Paintbrush) and Statice Suworowii (a most distinct thing for vases, of a pleasing pink colour) were prominent in Mr. A. E. Humphreys' and Mr. W. H. Banks' collections.

Roses were on the small side, and before evening looked rather sorry for themselves. Messrs. A. Cocker and Sons from Aberdeen put up an exceptionally fresh lot, and deservedly gained premier honours in both the twenty-four and the eighteen classes.

Gladioli were excellent. Messrs. Kelway had a glorious lot, and we thought it an idea that might be imitated with advantage to the visiting public to append tickets to the varieties which were to be sent out next season. Colonel Hargreaves, J. H. Ismay and Sky Rocket were three good things that we singled out from next year's introductions. Old varieties of great merit are Golden Measure (rich buff yellow), Duke of Richmond (clear rose), Barnum (very deep crimson) and Nonpareil (pinky rose). In the competitive class for twenty-four spikes, Messrs. G. Mair of Prestwick, N.B., again had a very striking collection. One variety, Spitfire (red), had no fewer than twenty flowers open at once, and all their spikes were unusually fine. Mr. A. Brydon, Mr. W. H. Banks and Lord Harlech had good exhibits in their respective classes.

Hardy flowers were well represented in two magnificent groups (for twenty-four and for twelve varieties) set up by Mr. A. Brydon of Innerleithen, N.B. The quaint Alstrœmeria psittacina (the Parrot Flower of the Incas), Helianthus variety Mrs. Moon, Eucomis regia (a pretty green-flowered Cape bulb) and the well-known Montbretia Germania (deep orange red) were conspicuous for their good condition.

The rock and alpine class brought out two very interesting and good displays. Mr. G. R. Hayes of Keswick was placed first. Gaillardias showed up to advantage. The dry season evidently suited them. Messrs. Harkness and Sons of Bedale, who make these one of their specialities, were awarded the first prize. Included in their stand was Lady Rolleston, a giant pure orange self, one of the very best varieties in the world.

Phloxes were everywhere. Unfortunately, very many, both in the competitive and the trade groups, were nameless. Mr. F. Eames had the rich purple Le Mahdi in his prize lot, and Mr. R. Hayes (second) the beautiful orange-salmon General van Hentz. Traders like Mr. T. R. Hayes (Keswick), Messrs. Caldwell and Sons, Messrs. Gunn and Sons (who staged most effectively in round baskets about 2½ feet or 3 feet in diameter, each containing one variety), Mr. John Forbes of Hawick and Mr. Isaac House of Westbury-on-Trym had large displays, and those who wanted to make a selection for their gardens would have had no difficulty in doing so, except that which arises from a superabundance of nice things. Coquelicot is still the nearest approach to scarlet. Le Mahdi (the deepest and richest plum purple), the Aldersey pink variety (one of the brightest and daintiest of the salmony shades), Elizabeth Campbell (a delightful deep blush) and Ellen Willmott (a cool mauve) should be in all collections.

The outstanding feature of the cut-flower section were the Dahlias; this is a Dahlia year. Big, old-fashioned ones, tiny little Pompons, up-to-date Collarettes, spidery Cactuses, pretty decoratives and massive-looking, Pæony-flowered varieties were all represented.

Messrs. Dobbie and Co. had a large trade exhibit, well grown and very well set up. Hobbies, Limited, who were opposite them, had another huge collection; while prominent in the six classes which were devoted to this old-time flower were Mr. J. Walker, who had a lovely white Cactus, White Lady, and a very pleasing buff, H. L. Brousson; Messrs. Keynes, Williams and Co., and Messrs. M. Campbell and Son.

There were the usual highly effective bouquets and floral designs. These latter are very wonderful, but one rather regrets the waste of time that has been spent in making such extravagant curiosities. Mr. W. J. Garner and Mr. A. Adshead divided the honours, and showed some beautiful creations of Orchids and other flowers.

The following were groups that should be mentioned, in addition to those already referred to.

Miss S. S. Thompson of Handsworth had a choice collection of exceedingly well-grown succulents. The large specimens in pans of Echinopsis Eyresii, E. gemmata, Echeveria agavoides and Gasteria (species) were magnificent. Rarities were represented by Mammillaria plumosa and Echinocactus ornatus.

Messrs. Dobbie and Co. had many good Sweet Peas in very fair condition, in addition to their Dahlias, already referred to.

Messrs. Jones and Sons of Shrewsbury had many good border Carnations and some good Sweet Peas. A new unfixed one called Mrs. Bryce bids fair to make a name as a very pale blush.

Messrs. Dicksons of Chester had a large collection of the older perennials and such like things. Delphinium Ethel (pale blue), and Delphinium Moerheimii (pure white), with Heleniums Riverton Gem and Riverton Beauty, deserve mention. Mr. Alan Myers, in an extensive muster of Zonal Pelargoniums, had a very pretty soft salmon scarlet named Ville de Poitiers.

Messrs. Bakers contented themselves with a highly effective display of Asters and Snapdragons in round baskets. The latter flowers are very much to the front nowadays, and they are useful in many positions in a garden. We believe that the dwarfer kinds are the more popular, but there is a loss of something when they are compared with their taller brothers. Rose Doré, Dazzler and Cottage Maid were beautiful in the various shades which are aptly suggested by their names.

Mr. Edwin Murrell had Gladioli, Roses and Clematis; Messrs. Webb, some effectively staged Sweet Peas; Messrs. Jarman, their beautiful and much-coveted Centaureas; and Messrs. G. Gibson, their celebrated Verbascums Caledonia and phlomoides alba in a mixed group of hardy plants.

A bold and effective display, consisting mainly of Liliums and Carnations, was made by Messrs. Dickson and Robinson.

Delphiniums loomed large when one looked at Mr. Amos Perry's long group. Carolina, Mrs. Thompson, Lamartine and Lizzie are varieties to be marked down.

Messrs. Alex. Dickson and Sons made a brave show with some good examples of Roses. Jessie, Duchess of Wellington and Aennchen Müller were among the best.

Messrs. Aldersey and Marsden Jones had a very nice light arrangement of hardy flowers. We think their exhibit was quite on the right lines, showing as it did the individual kinds without crowding.

Mr. John Forbes had a grand bank of Pentstemons and other flowers. P. Southgate Gem is certainly a lovely thing; so too, were the larger-flowered Professor Poggi and John Lamont—all three are crimson reds of various shades.

Mr. Isaac House filled a whole bay in the tent with the large groups. Phloxes, hardy plants, flowering shrubs, rockery and bog plants, Sweet Peas and other odds and ends made up a very interesting collection.

The Begonias of Messrs. Blackmore and Langdon excelled themselves. It is marvellous to think of the older varieties and then to compare them with present-day results.

AWARDS.

Large Gold Medals.—Messrs. Clibrans, Messrs. Sutton and Sons, King's Acre Nursery Company, Hon. Vicary Gibbs (gardener, Mr. E. Beckett), Messrs. James Veitch and Sons and Messrs. E. Webb and Sons.

Gold Medals.—Messrs. H. B. May and Sons, Messrs. Dickson and Robinson and Messrs. Dicksons.

Silver-gilt Medals.—Messrs. Isaac House and Son, Messrs. Herd Brothers, Mr. T. R. Hayes, Messrs. Bakers, Messrs. Caldwell and Sons, Messrs. Hobbies, Limited, Messrs. Gunn and Sons, Mr. Amos Perry, Messrs. Alex. Dickson and Sons, Messrs. J. Forbes, Limited, Messrs. Dobbie and Co., Mr. H. N. Ellison, Messrs. Pritchard and Sons, Messrs. H. Jones and Son, Limited, Messrs. W. and J. Brown, Messrs. A. Young and Co. and Messrs. Kelway and Son.

Silver Medals.—Messrs. Simpson and Sons, Mr. E. Murrell, Mr. A. Myers and Messrs. Jarman and Co.

Bronze Medals.—Mr. E. Low, Messrs. G. Mair and Son, Mr. F. Eames, Messrs. G. Gibson and Co., Mr. F. W. Johnston, Mr. W. Pattisson and Robert Sydenham, Limited.

ROYAL HORTICULTURAL SOCIETY.

AFTER a lapse of four weeks, the Royal Horticultural Society held its exhibition of flowers and fruits at Vincent Square, Westminster, S.W., on Tuesday, August 29. The society's hall has been closed for the past month for repairs and for the purpose of being redecorated. The walls have been painted soft green with white facings. The effect is very pleasing, and quite in keeping with the exhibits. There were many meritorious groups shown on this occasion. Dahlias were wonderfully good, and created a very showy effect; but the most important feature of the exhibition was to be seen in the Chinese shrubs, few of which were in flower, shown by the Hon. Vicary Gibbs.

FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), and Messrs. J. Cheal, H. H. Williams, W. Bates, A. Dean, J. Willard, G. Kelf, W. Humphreys, G. Reynolds, G. Wythes, J. Jaques, Owen Thomas, A. W. Metcalfe and Edwin Beckett.

A highly creditable group of fruit trees in pots was shown by Messrs. James Veitch and Sons, Limited, Chelsea. The group occupied the entire end of the hall, and comprised no fewer than 120 Pear, Plum and Apple trees. The best Pears were Triomphe de Vienne, Marguerite Marillat, Souvenir du Congrès, Louise Bonne of Jersey, Conference and Clapp's Favourite. The three best Plums were Early Transparent Gage, Denniston's Superb and Jefferson. Apples, again, were particularly praiseworthy, and among the very best were James Grieve, Wealthy and the new kitchen Apple, Rev. W. Wilks. The last-named was cropping very heavily on two year old trees. A group of the Canadian Huckleberry, an American form of Solanum nigrum, with large, jet black berries, was also shown by Messrs. Veitch, and its edible properties were the subject of much discussion. This highly meritorious collection of fruit was awarded the society's gold medal.

Messrs. S. Spooner and Sons, Hounslow, showed cooking and dessert Apples in season. A large basket of the small but highly-coloured Apple Duchess' Favourite was much admired. Other good dessert varieties were Worcester Pearmain, Goodenough's Nonsuch, Lady Sudeley, Middle Green, Rival and Early Strawberry. Some excellent dishes of the following cooking varieties were shown: Potts' Seedling, Frogmore Prolific, Grenadier, Lord Suffield, Lord Grosvenor and Stirling Castle. Silver Knightian medal.

Messrs. H. Cannell and Sons, Eynsford, Kent, showed a collection of Apples, both in and out of season. The collection was backed by Apples and Pears in pots. Among the best dishes of Apples were Worcester Pearmain, Rival, Okera, Benoni, Devonshire Quarrenden and Titowka—a good selection of dessert varieties. The best of the cooking sorts were Lord Suffield, Potts' Seedling, Warner's King and Peasgood's Nonsuch. Silver-gilt Knightian medal.

Messrs. Carter Page and Co., London Wall, E.C., were awarded a silver Banksian medal for an attractive collection of Tomatoes of all shapes and sizes. Some of the smaller fruits, such as Wonder of Italy, Greengage (yellow) and Cherry Red, attracted a good deal of attention from the visitors. In the background were trailing trusses, nearly a yard long, of the small-fruiting variety The Currant.

A small group of the new Laxtonberry, a hybrid between Raspberry Superlative and the Loganberry, was shown by Messrs. Laxton Brothers, Bedford. This is unquestionably one of the most useful of the many similar hybrids. The fruit is sweet, and the plant a perpetual fruiter.

Messrs. Dobbie and Co., Edinburgh, showed an admirable collection of Potatoes, all neatly exhibited in baskets and very tastefully arranged. Many red and purple varieties, such as Ex Red Kidney, Eightyfold, Red King, Crimson Beauty, Herd Laddie and Queen of the Veldt, were shown, while perhaps the most serviceable of all the varieties were The Factor, Windsor Castle, Talisman, Midlothian Early and Sharpe's Victor. Silver-gilt Banksian medal.

ORCHID COMMITTEE.

Present: H. J. Veitch, Esq. (chairman), and Messrs. J. O'Brien, W. H. White, W. Bolton, Gurney Wilson, H. G. Alexander, A. Dye, W. H. Hatcher, W. P. Bound, J. Charlesworth, W. Cobb, J. E. Shill, A. A. McBean and S. H. Low.

A most effective group of the blue Vanda (V. cærulea) was sent by the Duke of Marlborough, Blenheim Gardens, Woodstock (gardener, Mr. George Hunter). The group was a large one, and greatly admired for the free-flowering propensities of well-grown plants. Silver-gilt Flora medal. This was the highest award made by the Orchid committee.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had a mixed group of Orchids, comprising large sprays of Oncidium luridum, numerous Vanda cærulea, Dendrobium formosum giganteum and a number of Lælio-Cattleya hybrids. A silver Banksian medal was awarded to this group.

Messrs. Charlesworth and Co., Hayward's Heath, secured a silver Flora medal for a unique collection, including such varieties as Aerides sanderiana, Miltonia schröderiana, Stanhopea oculata and Houlletia Wallisii. The last-named, a glorious golden yellow, secured an award of merit.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, *Tavistock Street, Covent Garden, W.C.*

NATURALLY-GROWN CLIMBERS.

IT is seldom that one sees shrubby climbers, other than perhaps odd specimens, grown in a free and natural manner, yet plants cultivated in that way are infinitely more beautiful than those which pass their lives secured to walls in a neat and formal manner. The advent of the pergola has given more scope than was formerly the case for the cultivation of climbers; but that does not fill the want, for very often pergolas are not high enough to allow strong-growing climbers to develop to anything like their full extent; therefore hard pruning is a necessity. An excellent example of a naturally-grown Vine might have been seen a few years ago, and probably can be still, in Mr. Anthony Waterer's nursery at Knap Hill. Planted near the outskirts of some large Evergreen Oaks, the Vine had gradually taken possession of the Oak branches to furnish itself with a support and had ascended to the top, its long growths and fine foliage covering the trees in a luxurious manner. In the same nursery a Wistaria had grown over a tree in a similar way, thereby creating a charming effect when in bloom.

It often happens that large bushes or low-growing trees may be sacrificed in a garden for the purpose of affording support for climbers, and sometimes, when a bush or tree is showing signs of deterioration, it may be made attractive again by planting some strong climber near it to cover its branches. The various members of the Vine family are peculiarly adapted for the purpose, especially those with large foliage, such as Vitis Coignetiæ, V. Labrusca, V. megalophylla and the garden V. Thunbergii, while other suitable sorts for the purpose are V. Thomsonii, V. armata and varieties, V. leeana, V. quinquefolia and V. Romanetii. To succeed with them it is necessary to provide a large pocket of good soil about the outskirts of the tree or bush, in order that the branches may ascend from the outside of the support, instead of having to force their way through the branches in semi-darkness. Until the Vines are capable of looking after themselves, assistance should be given by securing them to their support, so that they are not broken by wind.

Another plant which gives a good account of itself when allowed to grow in a free and natural manner is Aristolochia Sipho. Here and there in Scottish gardens this plant is made good use of, and fine bushes are noticeable. Polygonum baldschuanicum has, for the length of time it has been in general cultivation, perhaps been allowed to grow naturally more than any other climber, and we sometimes see specimens covering trees or other supports to a height of 15 feet or 18 feet. Such examples when in full flower or fruit are wonderfully effective. When grown over a dark-leaved Holly or conifer, the whitish flowers are seen to advantage against a dark background. Among the Clematises we find a number of kinds which are well suited for the purpose under notice. Everyone has seen the common C. Vitalba covering hedges, trees or other supports on commons or banks in country lanes, and it is possible to introduce similar effects into the garden by using other species. In some places C. montana could be used for the purpose, while its variety rubens would also be excellent. C. campaniflora, orientalis, Flammula, Viticella, grata and alpina are other species which might well be tried. The garden varieties of Clematis would be worth trying in gardens where they thrive, but too frequently they cause trouble by dying suddenly for no accountable reason just when they are commencing to be most effective. Celastrus articulatus is a strong-growing climber which may be expected to reach the top of a tree 30 feet or more high. Celastrus is allied to Euonymus, and, as in that genus, its showy feature lies not in the flowers, but in the fruits. The fruits of C. articulatus are yellow. When they ripen they open and disclose the orange scarlet seeds within. Ripening during late autumn, they remain on the plants until well after Christmas.

The two Akebias lobata and quinata are of decorative appearance, and though their violet or bluish fruits are rarely, if ever, produced in the open ground, it sometimes happens that their curious purplish flowers are borne in profusion. Both grow to a large size, and are worth considering. The same thing may be said of Menispermum canadense and M. dauricum; both grow rapidly and form decorative subjects. Their flowers are, however, not conspicuous, but their fruit resembles small bunches of Grapes. Several Actinidias may be planted. Until quite recent years A. arguta was perhaps the

best known, but since the introduction of the Chinese A. chinensis, this has been more eagerly sought after than any other kind. It is ornamental alike by reason of the foliage and flowers, while its fruit is said to be edible and palatable. Being of vigorous habit, it may be planted where it will have plenty of room for development. Other Actinidias are Kolomikta and polygama. The various climbing Honeysuckles are all worth growing in an unrestricted manner, and they form very showy specimens when well grown. Lonicera Periclymenum, L. japonica and the various varieties of the latter species are some of the most effective sorts. Periploca græca is another strong-growing climber suitable for a roomy position, while Roses of the moschata, multiflora and wichuraiana types may be expected to reach a height of 15 feet or 18 feet if given a bush or small tree for a support.

Groups of rough Oak branches also make suitable supports, but where a bush or low tree can be spared, it is better adapted for the purpose. The subjects mentioned are but a few of the many which may be requisitioned for the purpose, and anyone who succeeds in growing a really good climber to maturity in the way advocated will certainly be encouraged to make further trials.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 11.—United Horticultural Benefit and Provident Institution's Committee Meeting.

September 12.—Royal Horticultural Society's Meeting and Exhibition; Lecture at 3 o'clock by Mr. Thomas Smith on the Small Holdings Movement. Woodstock Flower Show.

September 13.—Royal Caledonian Horticultural Society's Show (two days). East Anglia Horticultural Society's Meeting.

September 14.—National Rose Society's Autumn Show at Vincent Square.

September 16.—Paisley Florist Society's Chrysanthemum Show. Elstree and Boreham Horticultural Society's Show.

National Rose Society.—The autumn Rose show of the society will be held in the Royal Horticultural Hall, Vincent Square, S.W., on Thursday, the 14th inst. As the past month has, at all events in the southern half of England, been so dry and otherwise unfavourable for the production of blooms in the early autumn, several new and suitable classes, both for nurserymen and amateurs, have been added to the schedule.—EDWARD MAWLEY, *Hon. Secretary.*

Kent Commercial Fruit Show.—The above show is to be held at Ashford on December 11 and 12 this year. The show is being organised solely to benefit commercial growers. The Apples will all be packed in wooden boxes similar to those in which fruit arrives from our Colonies and the United States of America. It is one of the aims of the promoters of the show to introduce this system of packing more largely into this country. There are classes for the exhibits of both small and large growers, and also several open to the whole of Great Britain. A fruit conference will be held on the first day by the South-Eastern Agricultural College, Wye, when papers on insect and fungus pests and other subjects will be read and followed by discussions. A practical demonstration of up-to-date Apple packing will also be given. It is hoped, therefore, that all fruit-growers will support this show by either exhibiting or attending. The hon. secretary is Mr. W. B. Burgess, The College, Wye, Kent, from whom copies of the schedule and full particulars can be obtained.

The National Vegetable Society's Exhibition.—As will be seen by a report which appears on another page, the second annual show held by the above society on Wednesday of last week was a successful one, notwithstanding the exceptional heat and drought that growers have had to contend with. We much regret that the show was so poorly attended. The committee had been to a vast amount of trouble to bring together a unique display of all that is best in the kitchen garden; hence the meagre support given by the public must have been, to say the least of it, disappointing. There must be something wrong with us as a nation when we fail to recognise the intrinsic value of vegetables as compared with flowers. We should have thought that the recent upheaval in the industrial world would have brought home vividly to everyone the important part that fresh vegetables play in our daily lives, and that more at least of those interested in gardening generally would have given the committee support and appreciation by attending the show.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Date of the National Rose Show.—To postpone the date of the autumn show, as advised by "P." on page 418, would be making matters worse. If this weather keeps on till the end of September, we shall be digging up Roses then. No, by all means let the Scots come and do their best; they do not often get a chance. I remember about three years ago they brought some Teas which were as good as our best summer blooms in the South and were a sight to please the gods, and I am sure they were the friendly envy of a good few Tea Rose-growers, myself included. It is good to see them win and come out of that reserved quietness, for really the Scot is as excitable as a Frenchman. When at the Glasgow Exhibition some years ago, I was trying to get my boxes on board the train, but could not get a porter, and saw evidently a brother-gardener going off, too. We exchanged notes on the show, and after telling him my luck, he informed me that he had got third for "Feechias," and was very proud, too, about it. As before mentioned, I could not get a porter, but my new friend found one for me and used some terrible language to him which was quite new to me; but I caught the train. I think it would be a great mistake in every way to postpone the show.—ALFRED E. PRINCE.

British gardeners and the International Horticultural Exhibition.—Amid all the discussion and contention which has arisen over the charges for admission to the coming International Exhibition, that most important person in British horticulture, the gardener, seems to find no place. That may be due to his own lack of interest, for, so far, little has been manifested by him, or it may be that the charges for admission to the exhibition during the first few days of its opening are too high to suit his pocket, and he may in consequence have concluded that the exhibition is not for him, but only for the wealthy. However that may be, the British gardener is a keen appreciator of flower shows, if good ones, and cares to see them only while fresh and in the flush of their beauty. He may, therefore, have reasoned that if the charges for admission to the show on the first three or four days of its continuance be so high as has been intimated, by the following week the show will have no interest for him, because the exhibits, then a week old, or nearly so, would have become stale and lacking attraction during the second and probably cheap admission week. His special interest would be found in the fruit, vegetable and cut-flower classes, and on these it seems there is but one adjudication, viz., on the first day of the show. All such things—even if replaced, and fruit and vegetables cannot well be—would if left either be worthless after a week's exposure or would not be the same, if replaced, as were those to which prizes may have been awarded. These considerations weighing with the gardener, it may be no matter for surprise if his interest in the exhibition seems to be so small. I think, having regard to all the British gardener has done for horticulture—for largely he has made it what it is—the executive of the exhibition should not only make a liberal offer as to charges for admission to *bona-fide* gardeners or horticultural workers, but should allot one day in the first week of the exhibition on which gardeners should be entitled to visit it. As there are on the executive some well-known gardeners, it might well be hoped that these would work hard in the interest of their fellows throughout Great Britain to secure for them privileges such as may be far more favourable than are those offered to the public generally. As the exhibition is to endure over practically two weeks, it is to be regretted that at least one-half of all the classes devoted to perishable exhibits could not have been held over till the second week, and thus have brought in quite new material and new competitions. Then the second week's display would have had interest for gardeners and would have provided a new and needful stimulus.—A. D.

Autumn-sown Onions.—A correspondent, "H. M.," advises sowing seeds for securing crops of autumn-sown Onions of those old large, yet soft-bulbed, varieties Tripolis and Roccas. That these varieties succeed admirably, as a rule, are quite hardy and produce very fine bulbs in the summer, there can be no doubt. But while so fine and temporarily so firm, these bulbs do not keep long; hence they fail in the winter months to replace the bulbs of the spring-sown stocks, when, as is so commonly the case, the plants fail through the depredations of the maggot. Happily, we have in Ailsa Craig a superb, hard, long-keeping Onion, even when raised from an autumn sowing. But unless sown in the first week in September, outdoor sowings to stand the winter may be too late; therefore, those who would sow seed should do so at once, acting fully on "H. M.'s" instructions.—D.

Moles and the dry weather.—I had last week a curious instance of what moles will do when hard driven for food, as they have been lately. I have a small span-roofed forcing-house in which I grow Cucumbers, &c., and also some Melons in Seakale pots. These were placed upon a wooden trellis about 5 inches above the ground

which forms the sides of the path down the middle of the house. One morning my gardener found that a mole had during the night cast up a heap under the trellis, exactly under the hole in the pot, and had thoroughly explored the soil in the pot. The gardener stopped the hole with slate; but the next night Mr. Mole had repeated the process with another pot, and accordingly slates were put to all the remaining ones and stopped the mischief. Beaten at his game here, the mole turned his attention to a frame on the grass covering some choice Cyclamen. He overturned several pots, when, luckily, the gardener appeared, and soon made an end of the trespasser. I do not know if any other reader has had a similar experience. Such enterprise is quite fresh to me, at any rate.—JOHN T. STRANGE, *Firlands, Sulhamstead, Berks.*

QUEEN DAFFODIL.

'Tis the ninth month, and every post
Contributes to the mighty host
Of those delightfullest of prints
Bulb-merchants' catalogues—with hints
Of how Narcissus may behold
Himself, next March, in green and gold.

Ah sweet perplexity! One looks
Through all these fascinating books;
Here *Leedsii* her whiteness shows;
There *red cups* blossom as the Rose;
Heralds in yellow tabards bring
Their proclamation of the Spring.

Shall I my little all invest
In some scant dozens of *the best*,
The *newest*—and for some great show
With utmost care my treasures grow?
Or, less ambitious, shall I order
Old standard favourites for the border?

Truly "my heart with pleasure fills"
Merely to read of Daffodils.
You love them? 'Mid the April showers
Persephone brings back her flowers—
But what a rapture you have missed
If you have scored no autumn list!

C. ST. G.

Japanese Anemones and Sea Lavenders.—I noted in a recent number of THE GARDEN a remarkably pretty effect produced in a large bed as the result of a combination of Shasta Daisies and Canterbury Bells; and an equally pleasing effect is now to hand caused by a mixture of the two families named at the head of this note. The Anemones in variety were planted in the well-trenched bed last autumn, attention being given to the selection, so that it comprised variety in colour, foliage and height, the latter an important consideration to avoid an even outline, and one gets this in the new semi-double varieties that are becoming more popular with each succeeding year alike for the open border and for cutting. The Sea Lavenders are from seed sown in the summer of 1910, the young plants pricked into nursery beds as soon as they could be handled, and transferred to the vacant spaces between the Anemones early in the spring. They have revelled in the trenched ground and are flowering very well. The above is a good way to acquire fresh stock, as one gets a capital variety alike in size of panicle, colour and season of flowering.—A. G. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

POTATOES.—The Potato harvest promises to be unusually early. The haulm is fast dying down, and in most cases the crop appears to be thoroughly matured. Under these conditions it will be wise to lift the tubers and place them in a cool shed for a week or two prior to storing them in the clamp, as the ground is now very warm, and, should a wet period set in, the tubers would quickly commence a second growth. Moreover, should there be disease present, it will spread very quickly if the crop is left in the ground.

Cabbage.—A planting should now be made from the earliest sowing on a sheltered border. The ground should be dug and enriched with a quantity of well-rotted manure. Put the plants out about 1 foot apart in rows about 18 inches apart. In the absence of rain, liberal supplies of water must be given. Apply a dusting of lime occasionally to keep off slugs. The main planting should be made towards the end of the month.

French Beans.—A sowing of this useful vegetable should be made now in 7-inch or 8-inch pots. The pots may remain outdoors till the weather becomes too cold, when they must be placed in a light, airy house near to the glass. Osborne's Forcing and Ne Plus Ultra are excellent varieties for this purpose.

Onions.—If not already done, the bulbs must be pulled and stored in a dry place when they are perfectly dry, as the crop is thoroughly ripe.

Celery.—To obtain the best results, the plants should be earthed up at frequent intervals. Like most other vegetable crops, Celery has suffered from the continued drought; therefore it must receive every encouragement to make up lost ground during the next few weeks. The plants must receive plenty of moisture should the weather continue to be dry for a lengthened period. Diluted liquid manure should also be given to promote a free growth. The water must be applied with care, so as not to wash the soil into the hearts of the plants.

Tomatoes.—The season has been very favourable for outdoor Tomatoes, and the plants are carrying heavy crops of fruit. The later fruits must be encouraged to mature by removing some of the foliage to expose them to the sun. The plants should also be given liquid manure when watering, also an occasional dressing of Le Fruitier. Later on, when the weather becomes too cold, the fruits may be cut with the stems attached and placed in a vinery, where a large number will ripen.

Mushrooms.—Horse-manure may be collected for making beds for late autumn and winter supplies. Place the manure in a dry place, and turn it at intervals of two or three days to sweeten it. The bed should be made before the heat in the manure declines too low. The heat in the bed should be about 80° at spawning-time. To keep up a continuous supply, a new bed should be spawned at intervals of a month.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT GARDEN.

GATHERING.—Early Pears and Apples will now be approaching maturity, and to have these in the best of condition for the table, great care must be taken to have the fruits gathered at the proper time. A few of the most forward should be picked as soon as possible, and if placed in shallow boxes in a warm vinery with a sheet of glass over them, their maturity will be hastened, and thus the supply will be lengthened considerably. Some varieties of Pears, such as Williams' Bon Chrétien, do not remain long in good condition, and should be used within a few days after being taken from the trees. If it is necessary to send these a long journey, they should be picked a little under-ripe and packed in shallow boxes with soft tissue paper and wood-wool.

Birds and Wasps.—Both Apples and Pears frequently receive much damage from birds before they are ripe enough for picking, and when once the skin is broken they soon attract the attention of wasps, which seem very plentiful this season. The fruit should be protected with nets from the former, and the latter should be trapped by means of glass jars half filled with sour beer. A constant war should, however, be waged against the wasps throughout the summer by destroying all the nests that can be discovered; the practice of offering a small premium for each queen wasp in the spring, as well as for the destruction of their nests, by some fruit-growers serves to reduce their numbers, and might be copied throughout the country, with profitable results. At this season a thorough inspection of all fruit trees should be made, and notes taken of those varieties that prove most suitable for the climate and the demands of the place, so that fresh plantations may be made of varieties only that have proved profitable. There is little use in retaining varieties, even if they possess high recommendations from many quarters, when it is found that the soil and surroundings will not suit them. The trees, if otherwise clean and healthy, may be grafted in spring with varieties that have proved suitable to the district, thus giving a much quicker return than if they had been rooted out and young trees put in their places. Owing to a protracted drought and the trees carrying a full crop, many of the fruits are dropping prematurely, and on light soils it has been imperative that large supplies of water be given to keep the trees in a healthy condition; indeed, recently-planted trees of Apple, Pear and Plum have only been kept alive by continuous supplies of water, applied through a heavy mulching of manure.

Vineries.—Grapes that have now finished well should have the water entirely withheld and be ventilated freely both top and bottom; a little heat in the pipes with a reduction in the ventilation should be given during dull weather, or damping of the berries will set in. Protect the ripe bunches from wasps by means of wasp-proof bags or fine tiffany stretched over the openings of the ventilators; this will also prevent the admission of small birds, which are sometimes troublesome. Vines from which all the fruit has been gathered may have the shoots shortened to half of their length to allow a free admission of light and air. Thoroughly wash the foliage if any insect pests have been noticed.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

EARLY STRAWBERRIES IN FRAMES AND BORDERS.

IN many gardens frames are not available for Strawberries over a long season, and can only be spared in the spring. When so grown, the results are excellent and the fruit comes in during the early part of June, when the Strawberry is a most welcome addition to the dessert. With frame culture the plants can be given the soil they like, and with a poor soil I have grown British Queen to perfection which was anything but satisfactory in open quarters. I have found, where large quantities of Strawberries are forced, that at times the pot plants are over by the early part of June, and there is a void between these and the earliest open-ground supply. Here the cold-frame fruits are of great value, and they are grown with little trouble. Doubtless the best results are secured when strong plants are obtained for this work in the previous July or early August, as they get a long season's growth. I have adopted various plans, when the frames have been occupied till March or April, by growing in boxes, also by placing the frames over the plants when growing. When boxes are used it is a simple matter, as the plants are boxed in August and are at this season a mass of roots and showing their flower-spikes freely. The best crop I ever saw was grown in boxes in frames, the variety being Bedford Champion. The fruits were very fine and the flavour superb. These were grown in the North for a late June supply. Of course, plants in pots placed in cold frames are of great value for the season named, and the fruits are equal in flavour to the best grown in the open, but the pot plants give more labour in watering and feeding. I would strongly advise planting out.

We now come to what may be termed the protected plants in the open border, and this I can strongly advise, having adopted it largely for the first open-ground supply. The variety I find best for the work is Royal Sovereign, and as all growers know, this is one of the earliest varieties to open its flowers, consequently the worst sufferer when late spring frosts are prevalent. For the first crop an early warm border under a wall can readily be protected at night by tiffany drawn over strained wires, the latter being supported by stakes at intervals of several feet and about 18 inches out of the soil; indeed, I have found a square three-quarter-inch mesh net stranded over the wires sufficient protection. It is surprising what protection is afforded by the last-named; but whatever means are employed to protect, these should be removed early in the day, as if left too long they weaken the blossom. The net is not only valuable as a protector, but later on it is equally valuable to keep the fruits from birds, and is much better than resting nets on the plants. The nets are always in position and in a drier state; moreover, they last much longer, are easier to place in position, and may be removed without doing damage to the ripe fruits. The labour in protecting at the start is well repaid. G. WYTHES.



A LITTLE-KNOWN MALLOW, MALVA ALCEA FASTIGIATA, IN MR. E. A. BOWLES'S GARDEN.

PEACHES AND NECTARINES.

THE long spell of bright, warm weather we have experienced this season has been most beneficial to both Peaches and Nectarines on the open walls. At the present time the individual fruits are fast developing, the young growth healthy and the foliage remarkably clean. The second week in August we gathered ripe fruits of that useful early variety Hale's Early. Although not one of the earliest to ripen in the open, it is one of the best and most reliable varieties to grow to succeed Waterloo and Alexander. The fruits do not grow to a large size, being about medium, very highly coloured and of excellent flavour. To follow this we prefer Rivers' Early York, a very useful Peach; then come Early Grosse Mignonne, Goshawk, Stirling Castle, Noblesse, Dymond, Royal George, Bellegarde, Crimson Galande, Violette Hâtive, Marquis of Downshire, Sea Eagle, Barrington and Walburton Admirable. The above are all dependable and well-tested kinds; notwithstanding, there are numerous other excellent varieties well worth room wh there is ample wall space devoted to Pe culture. Of Nectarines our best are Lord Nap Pineapple, Elruge and Humboldt. To th trees bearing good crops of fruit continue to ap bountiful supplies of water and liquid manure intervals to thoroughly moisten the soil and ro to a good depth, and freely syringe the trees w *clean* water every afternoon during bright weath Do not overcrowd the trees with useless wo but retain and keep neatly secured to the w or trellises those shoots that will be requi for fruiting next year and for covering vac spaces. Another most important item in c nection with the production of good-sized lusci fruits is to avoid overcropping the trees for sake of quantity I do not th there is anything more detrimen to Peach trees than overcropp We like to regulate our cr according to the size of the var and the health and strength the wood. When the fruits ripening, syringing should be continued and the individual fr looked over daily, removing c fully any which may be re before there is a chance of t dropping, which should by means be prevented, otherwise fruits will get so badly dama as to render them unfit for table. All fruits are best w gathered a trifle under-ripe, especially those to be packed sent a long distance or to mar I have repeatedly gathered Peac and packed them when the un part of the fruits has been q hard, sent them many miles train and water, and by the t they have reached their dest tion the fruits have been in per condition. Young trees grow apace should be neatly thinly trained. H. MARKHA

GREENHOUSE

NOTES ON ORCHID

MASDEVALLIAS.

THIS is a very wide ge containing plants various sizes, while shape of the flow differs considerably the colour in s instances is most brilliant; but in others is less showy, and Masdevallia tovare is pure white. The popular section, howe are varieties of M. coccinea, which inclu harryanum, Lindenii, splendens, Bull's bl and grandiflora, all highly-coloured for while for brilliance none can approach veitchiana, with its splendid variety gra flora, the type being described as bri vermilion flushed with crimson-purple. Am the more curious are coriacea, gairia houtteana and melanopus; but for decora purposes polysticta, floribunda, tovarensis, ig macrura, picta and triangularis are sugges The Chimæra group contains bella, Chesterto radiosa and vespertilio, but with these only

flower is open at a time from each scape. The grower, however, is compensated with a few more blooms as they decay and the spike elongates.

The method of flowering is different from other members of the genus, being produced in a similar way to Stanhopeas, and for this reason Teak-wood baskets are recommended, while to secure the best results a position in the intermediate house should be chosen, where they are protected from direct sunlight. All other kinds of Masdevallia may be grown at the warmest end of the cool house, and when in flower they make a pleasing contrast to the Odontoglossums and other occupants of this structure. The repotting is either done early in September or February, so any that are pot-bound can be given a larger receptacle now and those that are in a healthy condition may wait till the latter month. Ordinary flower-pots are employed, filling them one-third of their depth with drainage, over which is placed a thin layer of sphagnum moss to keep a free passage for water, because Masdevallias will not thrive if the compost becomes sour, although dryness at the root must also be avoided, on account of the absence of pseudo-bulbs. The rooting medium consists of fibrous peat, Osmunda fibre and chopped sphagnum moss in equal parts, with a sprinkling of crushed crocks and silver sand. The ingredients must be thoroughly mixed and prepared a week or so before being required.

With healthy specimens of small dimensions, little disturbance will be necessary beyond removing the old drainage and a portion of the top soil; but with large plants which are devoid of leaves in the centre, more drastic measures are needed. These are pulled into several pieces, cutting away dead roots and the decayed rhizomes, when the whole may be potted up and made into a compact specimen, unless it is desired to increase the stock, when each portion is given a separate pot. For several weeks after being disturbed extra care is needed with the water-can, or loss of foliage will be the result. The best plan is to keep the soil just moist and the stages well damped down, while on bright days a gentle spray overhead will encourage root action. During the winter months the atmosphere and the plants should be kept slightly on the dry side, with a free circulation of air whenever the elements warrant the ventilators being opened. This will to a great extent prevent the spot disease which sometimes attacks this interesting genus, and which is apt to do a great deal of damage if allowed to gain a strong footing.

At one time Masdevallias were grown in quantity, but for the last few years they have lost favour with some cultivators. There are, however, signs of their being taken up again, and no section of the Orchideæ contains such a varied lot of plants, which are for the most part easily grown and obtainable for quite a moderate sum, thus rendering them ideal plants for the majority of growers. SENTINEL.

THE FLOWER GARDEN.

MALVA ALCEA FASTIGIATA.

THIS appears to be the correct name of the beautiful Mallow figured under the name of M. Morenii in the *Botanical Magazine*, t. 2793. It has been one of the most beautiful plants in the garden here in this heart-breaking summer. Whereas most of its neighbours have long ago been scorched and ceased to flower, this Mallow has given an uninterrupted display of its clear pink flowers for several weeks, and has showed no signs of distress. It is a native of Italy, especially about Naples, so doubtless is well used to sunny summers. It is a good perennial, dying to the ground in winter, and forms a shapely bush some 4 feet high and nearly as much through. The flowers are large and of a very good shade of pink, striped with deeper-coloured lines. It is now beginning to ripen seeds in vast numbers.

Waltham Cross. E. A. BOWLES.



THE PRICKLY THRIFT, ACANTHOLIMON GLUMACEUM.

THE PRICKLY THRIFT.

ACANTHOLIMON GLUMACEUM, often spoken of as the Prickly Thrift, is a valuable plant for the rock garden. Its native place is Asia Minor, where it finds a congenial home in fissures between the sun-baked rocks. The most suitable position for it in our gardens is some open, sunny spot where a small plant can be inserted into a crevice, with ample root room behind, of very gritty sandy soil. It looks well projecting from some almost vertical face, with its cushion of deep green, rigid, spiny leaves, which in July are covered with spikes of bright rose-coloured flowers. It is a tap-rooting plant and dislikes moving. Young plants only should be secured if at all possible, and these well tended for a while after planting. Very little growth seems to be made for a year or so, but when once established the plant goes ahead and makes quite a large clump in time, but never more than 5 inches or 6 inches high, and all from the one central stalk. It does not propagate readily, and one is usually recommended to layer some of the outlying shoots during the summer. If fortunate, they should be ready for removal by the following spring. Probably the most vigorous plants will be those raised from seed, as these can with ease be inserted in very minute crevices, and will burrow 2 feet or 3 feet into the soil with their thong-like roots.

Needless to say, this would make an excellent wall plant, and would produce an effective contrast if planted in juxtaposition to some of the silvery-foliaged Dianthi, such as cæsius, or encrusted Saxifragas. This useful and distinct plant is thoroughly hardy, provided the soil does not lie wet and clammy about its neck during the winter; hence the suitability of using it as a crevice plant where it is secure against such adverse possibilities. It is, I think, a pity that such good and suitable plants are not more often seen, not merely in the rock garden. Surely such hummocks of rich green verdure could with great advantage supplant the very ordinary (though useful in their place) London Pride and Creeping Jenny, which one so often sees on low rock or burr edgings of 1 foot or 18 inches high! Or, on the other hand, how often one sees these same edgings absolutely devoid of inhabitants at all, as though the burrs themselves were sufficiently decorative. I feel confident that if anyone tried such plants as the foregoing, supplemented by, say, Dianthus cæsius, Iberis Little Gem, Œnothera macrocarpa, Genista tinctoria fl.-pl., Arenaria cæspitosa, Sedum Ewersii and S. turkestanicum, and some of the

silvery Saxifragas, such as Hostii, Cotyledon, Aizoon and longifolia, on such hitherto bare rocks, after backing them up with suitable gritty soil, we should see much less of the naked and desolate rock edgings, while the owner would have a colony of plants not merely of great beauty in themselves, but of unending interest both in and out of blossom. REGINALD A. MALBY.

FIFTY GARDEN DAFFODILS.

(*Continued from page* 422.)

BARRI.—Nearly all the varieties which are now placed under this section have red or red-edged cups. Because of this I hesitate to recommend them, for it must be remembered that they almost all of them burn if exposed to much sun. If they can be protected by a wall or a screen, say, of Coir-Netting, they will well repay the attention. In my opinion their most useful function is to supply cut flowers, and it is partly with this object in view that I have made my selections. First and foremost, no one must be without the old Barri conspicuus, a veteran variety which has stood the test of many seasons and is still indispensable. Seagull I place next. One of the very first of Engleheart's seedlings to come on the market, it can still more than hold its own. In the open the cup is usually all-yellow and the perianth white. Crown Prince is a well-shaped flower with a band of red round its yellow eye. Dorothy Wemyss, rather similar, but a taller plant and much later flowerer, is just as beautiful as the last. Harold Finn is so like a Poet that I see some dealers put it under this head. It is a good doer and very effective for cutting. A bloom in many ways similar, but which is larger in its different parts, is Southern Star. It is an early variety and very showy. Sunrise used to be cheaper than it is to-day. It is a good doer; need I say more to recommend it beyond noting the unique yellow rays on its white perianth and its large, flattened orange yellow cup, margined red. It received a first-class certificate at Birmingham last year. Stonechat is a pretty little red-cupped flower. Occident is only just becoming known. I consider it to be one of the very best in the Barri section. Its smooth, shapely, well-set-up pale yellow perianth is a splendid setting for its all-red cup. It is very late and most useful to prolong the season. Castile is a great favourite of mine. Of Frank Miles shape, but with a dull coffee-coloured red cup and deep primrose perianth, it is very distinct and beautiful.

Leedsii.—No section is more suited for gardens than this. There is no burning of red edges, for the best of all reasons, viz., there are none to burn. True, the yellows in many fade; but no one thinks this is a detriment, rather the reverse. The drawback to many of the most lovely is that they are not tall enough in their growth; hence I hesitate to recommend White Queen, and in its place advise a trial of Venus and that magnificent variety the Hon. Mrs. J L. Francklin. It is a tall grower, very vigorous, rather late, and bears its flowers so that they can be seen. Award of merit at Truro in 1909. Alas! it is still expensive. M. M. de Graaff, with its lovely pale terra-cotta-coloured cup, and White Lady are two cheap kinds of sterling merit. Evangeline is a glorified Mrs. Langtry, extremely floriferous and of surprising increase; in appearance like a bicolor Homespun. I very strongly recommend a trial. I have left Countess of Southesk to the last, so that I could say a good deal about it. I call it a white Frank Miles, and all the encomiums that have been poured out upon this may safely be passed on to the Countess. It only needs to be tried to be appreciated. Often and often I silently renew my thanks to Hartland for giving us such a bloom.

Poets.—For four which will take some beating give me Ben Jonson, Cassandra, Virgil and the newer and far more expensive Kingsley. Probably one should grow a good many more varieties, for Poets are like the proverbial woman, rather fickle and rather coy. No one, not even Engleheart the "Poet-maker," can quite tell what they will do next. I well remember his telling me how a chance move quite altered the look of a batch he was on the point of condemning.

Various.—The old Campernelle Jonquil must not be overlooked because we know it so well. It is such a contrast to all the others I have named I find it decidedly popular among the visitors to my garden. The wiry-stemmed Argent is an attractive semi-double, and one of the most lasting of all Daffodils. With three of the fairly new Poetaz varieties, Aspasia, Orient and Jaune à Merveille, I must bring my somewhat lengthy list to a close. The first two have white perianths and small yellow cups, whereas the third has an all-yellow perianth, and in dull weather and on first opening a narrow edge of red. All of them splendid flowers for a garden. JOSEPH JACOB.



MICHAELMAS DAISY MARGARET IN A LONDON GARDEN.

RAISING DAFFODILS FROM SEED.

MANY would-be raisers are, I think, possibly deterred from trying their hand by reason of the apparent necessity of a good deal of attention being required to be given to the seeds after sowing in boxes, most writers mentioning such matters as "plunging the seed-pans or boxes in ashes," "placing boxes in frames," "protecting against frost," "watering" and "weeding." Now these matters mean time, and to the business man who has to "sandwich" his attention to his hobby between getting up and getting to business, and between getting away from business and going to bed, time is of the utmost importance. In the hope of encouraging the busy man to try his hand at raising Daffodils from seed, let me assure him that from my own ten years' experience there is no *necessity* for "plunging," "placing in frames," "protecting against frost," "watering," or even "weeding." With the exception of a feeble attempt to water during this tropical season and the removal of ranker weeds I have never done any of the above-mentioned things, and I have lost a very small percentage of seeds—no more than my friends with whom I have compared notes. I flower a good percentage in the fourth year. Sow in boxes at least 6 inches deep and about 18 inches square, place them on bricks or tiles to keep them just clear of the ground and leave them alone. *Experientia docet!* C. LEMESLE ADAMS.

ASTER MARGARET.

MICHAELMAS DAISIES, like Phloxes and similar herbaceous plants, have suffered to a great extent in the tropical heat experienced this season. Now that the summer is waning and both nights and days grow cooler, there is some promise of autumn flowers; but up to the present Michaelmas Daisies or perennial Asters—call them which we will—have been almost a failure in many districts. Even when the plants have withstood the drought, it has been sad to observe how short has been the duration of the flowers. The plants are much dwarfer than usual, and the flowers on opening quickly pass away to produce heads of seed. We illustrate a variety, Margaret, which is this year flowering three or four weeks in advance of its season. It is one of the many varieties described as a mauve-coloured flower with a yellow disc but it is particularly showy on account of its large massive heads and profusion of flowers.

It is pleasant to be able to record the steady increase in popularity that these charming autumn flowers continue to make. The improved varieties quite eclipse the older ones, not only in colour, but also in habit and profusion of bloom. They are all so readily grown and admirably suited for garden decoration and for home adornment that they fully deserve the widely-extended cultivation given them.

THE KITCHEN GARDEN

VEGETABLE NOTES.

LIFTING POTATOES.—This is one of the important tasks of the month, and it will be in hand in practically every garden in the country. The season has favoured the grower, so far as the dreaded disease is concerned, but it has not done so in weight of crop, for the tendency is towards lightness throughout, and in some instances that have come under my personal notice only half the crop is being secured. This is most unfortunate with such a valuable food plant, but it will serve to impress the importance of deep cultivation of the soil in preference to the heavy manuring towards which there has been a decided leaning in recent years. It must be clearly understood that manures will not compensate for careless or neglectful soil working, and that, the deeper friability can be ensured, the longer the plants will hold out in dry weather and, consequently, the better the crops will be. This holds good with all vegetables grown in our gardens, and the sooner the fact is fully grasped, the sooner we shall be securing the best that the ground can give. I am no advocate of the "so-called" clean culture under which we must entirely exclude manure from our gardens; but I am convinced that for superior quality and flavour we shall find more satisfaction in deep mechanical cultivation than in manuring either with natural or concentrated fertilisers. The aim of the amateur with Potatoes, or any other crop for the matter of that, ought to be supreme quality with reasonable bulk. The market-grower may find bulk pay him better, and therefore he will not hesitate to manure heavily if it is going to give him a higher average return from each acre of ground. This is somewhat of a digression, and we will return to the Potatoes for a moment. In harvesting, no efforts must be spared to secure the tubers undamaged, and to this end they ought to be handled with as much care as a like number of eggs or ripe dessert Pears.

HARVESTING ONIONS.—This is another winter crop of vast importance which is in process of harvesting, and it is satisfactory to know that in the majority of instances the crop is a fine one. There have been the usual complaints of the ravages of the fly and mildew; but where sound preventive measures were taken in good time, the losses have been comparatively insignificant. Thorough ripening is the secret of success in keeping the bulbs, and this is not always easy to secure when two and three pounders are grown. Whatever the size, they should be loosened in position first to allow more air to play round the base, and eventually they must lie on the surface before being transferred to a still firmer base to finish. With big bulbs it is advantageous to place them on a raised stage, so that unlimited supplies of fresh air can play alike on all the surfaces, and not on the top and sides only as when lying on the ground. The storage place must be dry and airy, but frost can find its way in without doing the slightest injury, provided that the dryness is assured.

PARSLEY FOR WINTER.—We must be able to provide pickings of Parsley through the winter if we are to keep on good terms with the rulers of the kitchen, and we therefore put a frame and light over certain plants, or, if this is not convenient, lift and plant the necessary number in frames. The conditions of culture are, of course, rather unnatural, but if abundance of fresh air is admitted on all favourable occasions, the plants do not resent them; on the contrary, they yield splendid pickings over a very protracted period. If the plants in the borders are crowded, thin them until they stand 15 inches asunder, and they will prove invaluable before the spring.

CABBAGES FOR SPRING.—The bulk of these will now be established in their permanent positions; but if there are later plants at command and vacant ground, let them be at once put out, as they will almost certainly be of great value next year. The soil must be as deeply and thoroughly cultivated as possible, and it should be in good heart; but the addition of fresh manure ought to be done with the greatest care, or a coarse, sappy habit of growth may be encouraged which seldom stands the winter satisfactorily. Allow 15 inches between the rows and 12 inches in them, and make the soil firm about the roots. H. J.



HYDRANGEA ARBORESCENS GRANDIFLORA.

TREES & SHRUBS

HYDRANGEA ARBORESCENS GRANDIFLORA.

AMONG hardy Hydrangeas this is one of the most valuable plants from a decorative standpoint. It flowers at a time (July and early August) when showy flowering shrubs are by no means abundant.

The species, Hydrangea arborescens, is a native of the Eastern United States. The date of its introduction into this country is given as the year 1736. The subject of this note is readily propagated by cuttings during July, August and September. Like all other hardy Hydrangeas, it thrives best in a well-worked rich loamy soil, a mulch of decayed manure being beneficial in early summer, especially if the season is a dry one.

H. arborescens grandiflora should have the previous season's growths shortened to about half their length in spring. This will induce the plants to push up vigorous young growths, terminating with large heads of flowers. Some of these growths exceed 3 feet in height, with flower-heads 7 inches to 9 inches or more across. In the type, H. arborescens, the inflorescence consists of fertile flowers and a few sterile ones, but in the variety grandiflora all are sterile and white, thus being much more showy. A. O.

LONICERA HENRYII.

THIS new Honeysuckle belongs to the climbing section of the genus, and bears some affinities to the old well-known L. japonica. Like that species, it forms long, slender branches, which appear as if they will attain a length of at least 10 feet or 12 feet. The leaves are from 2 inches to 4 inches long and grow to 1 inch in width Like the stem, they are clothed with soft downy hairs, which

give them a silky character. The flowers appear, twelve or more together, in terminal heads during late June and early July. They are reddish purple in colour and 1 inch or so long. So far as can be judged at present, it is likely to blossom freely, and it gives promise of being a useful decorative shrub. Planted against a trellis or at the foot of a bush and allowed to grow freely, it ought to form quite as useful a shrub as L. japonica, while the difference in the colour of the flowers makes the two shrubs suitable for growing as companions. D.

THE ROSE GARDEN.

AMONG THE ROSES IN SEPTEMBER.

ONE cannot say we had a good time among these in August and the latter part of July. As a rule we are then getting the full benefit of our second cutting from the many beautiful and continuous flowering varieties now available; but this season it was far too hot for any but a few special varieties. However, now that there seems a welcome break in the prolonged drought, we are likely to have a good late crop from the quantity of semi-ripened wood the majority of plants are carrying; and if the ground, more than seasonably warm, does not produce such in an exceptionally rapid manner I shall be much surprised.

This season has suited some older varieties. La Boule d'Or, a Rose distributed by Margottin in 1860, has been good upon a warm wall, where it was used to fill in between taller growers. We do not often see this old Rose good, because it must have a hot and dry season, when it is one of the best of our golden yellows, free-growing and free-flowering. When it can open favourably, this is one of the most perfect high-centred globular Roses we have. At one time it was largely shown, but we have so many more reliable varieties now. Etoile de Lyon is another large and globular flower of deepest lemon yellow shades. This also requires a hot and dry summer to open. The season that would suit these double varieties often causes those with few petals to fly open so much as to be useless.

I never realised the exceptional usefulness of Mme. de Tartas more than this year. It is an old Rose (1860), and is very little grown now, but it stood the heat and drought better than any other variety growing under similar conditions. It also flourished upon a wall facing due south. We have no more hardy Tea, and, I venture to say, few so free-flowering as this. The chief drawback is its undecided colour, which is purplish carmine. I am aware we have much better Roses, but when an old variety comes through such a summer as 1911 so well as this has done, one begins to wonder why it is almost extinct. From the time I have had it—about thirty-five years—it has never failed, no matter what the season.

Early advantage might be taken of the quantities of semi-ripened wood now available to increase our stock of Roses upon their own roots. Much has been written from time to time about the value of various stocks for Roses, and probably equally as much as to the desirability of any stocks or foster roots at all. I do not propose opening such a knotty subject; but my own experience is that some do better in one form than another, and not one suits all varieties and soils equally. This is why I would root some of the strongest and freest growers now, as probably we shall not get such a good selection of suitable wood later, and have the soil in such a warm and perfect condition for inducing early callus and a good many roots before growth ceases. October is generally the month selected, but I fancy we shall be doing better by beginning sooner this year.

Some of the ripest plants may be lifted and potted, provided they are stood upon a cool or shaded border, partially plunging the pots to assist in keeping a more uniform moisture. It will be necessary to syringe the tops freely to prevent any tendency to shrivel. I have frequently lifted and potted dwarf Hybrid Perpetuals when upon the Manetti stock in September, and this year some of the plants upon seedling Briar are much riper than usual. I do not imagine this will be the case long; but if potted early and treated right, a considerable number of new roots will be formed and the wood kept in better condition than if allowed to make prolonged growth during autumn in the open ground. A. P.

ROSE FERNIEHURST (HYBRID TEA).

THIS beautiful Rose, named after the residence of George C. Waud, Esq., is one of the best of the several grand novelties sent out this season by Messrs. Alex. Dickson and Sons. It was shown in their fine collection at Ulverston, which won for this firm the chief prize of the day. It is almost impossible to describe the colouring of this very fine flower, but there is a blending of coppery pink and fawn truly delightful. It is a fine substantial bloom of exquisite form, quite double and of a beautiful finish. Exhibitors will want this variety, judging from the manner it withstood the heat in the show tent after a long journey from Ireland, and I know of no Rose that it can be compared with, so distinct is it in every way. P.

ROSE HIAWATHA AND THE HOT WEATHER.

THE recent prolonged spell of hot, dry weather has served to bring out the strong points of some garden plants, and among them the dark red, single wichuraiana Rose Hiawatha. The writer has had a mass of this variety under observation for several weeks, during which time it has been a perfect mass of colour, and though occupying a sunny position exposed to the south and west, the rich colouring has been well retained, while a mass of Dorothy Perkins near by has faded badly. It has also kept its flowers well, while the petals of many other single and semi-double varieties have been shed quickly. Another single variety which has the peculiarity of being able to keep its flowers well is the pink-bloomed Kathleen. The flowers of this have been known to be retained by the plant for quite a month. Varieties such as these are well worth looking after, for the period during which many rambling Roses are at their best is all too short. L.

THE TOWN GARDEN.

THE MADONNA LILY.—So many complaints and enquiries reach one from time to time as to the non-success of this purest of all garden Lilies that it seems but fitting to call attention to it at a seasonable moment. To not a few of those who garden in a small way for the pleasure and recreation such gardening affords, it would appear that there is no limit to the season of planting; and, indeed, to many, a subject such as the one under consideration may be planted with impunity so long as it is procurable in the bulb shops. In the case of this particular Lily there could be no greater error conceivable. The species is virtually an evergreen, that is to say, it flowers in July, and in August or thereabouts in those instances where the bulbs have been long established the new leaves at the ground-level and fresh roots below ground will be pushing forth simultaneously. To delay the planting, or, rather, transplanting—for both are not quite identical — beyond this period would be to reduce the chances of complete success; hence Lily-dealers lift and harvest the bulbs in advance, so as to modify the check. In so doing both root action and leaf growth are for the time being retarded, and, by taking advantage of this enforced idleness of the bulb, cultivators would be doing all in their power to merit success.

THE EARLY PLANTING now referred to has a value of its own, and the bulbs, having been duly harvested and early replanted, are ready to recommence root action at once, to the decided benefit of the plant. In not a few of the cases to which reference has already been made it has been found upon enquiry that the bulbs were planted very late; some, indeed, so late as February or March of the present year, or, roughly, six months too late. Such late planting has resulted in a stem growth only of a few inches in height, which, having gained its maximum, promptly collapsed because of the lack of support from the roots below. Naturally, such behaviour on the part of apparently sound, as well as large, bulbs has caused considerable disappointment, and remark has been made that the bulbs were purchased from a well-known dealer, reflection being cast upon his business attributes.

THE DEALER NOT TO BLAME.—In such circumstances as these the bulb-dealer is not to blame; nor can one reasonably attribute blame to the amateur whose action was the outcome of inexperience. Hence there is but one course open, and that is to make clear to all whom it may concern that the planting of such things should be done in season and in reason. To those who planted large bulbs during the early months of the present year, one may offer the consolation that the bulbs are probably alive and well, and, if left undisturbed, will recover in due time.

ITS LIKES AND DISLIKES.—Apart from this question of timely planting, there are other points worthy of consideration, and among them none more important than the likes and dislikes of the species. In the first place, in opposition to some other members of the genus, this particular kind would appear to revel in full sunlight, which may be due in part to its being a non-stem-rooting kind. The plant, too, has an unmistakable preference for poor soils, and is apparently most happy and flowers most freely when its bulbs through the process of overcrowding are lifted virtually out of the soil. Then, again, this unique Lily is naturally impatient of being disturbed, resenting such disturbance by an all too slow recovery at times. The plant, too, dislikes rich soils or the near proximity of manure. Of all these things the welcome evidence of clumps in wayside cottage gardens—albeit less frequent than of yore—afford ample proof, and, in all probability, an imitation of such conditions, and in particular the poor and coal-ash mingled soil so generally seen, would, in conjunction with the early planting already indicated, be followed by a fairly full measure of success. S. N. N.

GARDENING FOR BEGINNERS.

STAKING AND TYING UP CHRYSANTHEMUMS.

THE staking and tying up of Chrysanthemums should be done as and when required from the time the plants give evidence of needing support to maintain their growths in an upright position. The earlier the plants are propagated, the sooner does it become necessary to insert stakes for the support of the ample growths that most of them evolve in the course of a few weeks in the growing period. The object of staking and tying these plants is to afford support to the shoots just when they need this help. A keen observer will be quick to note that, so soon as a plant has reached a certain period of its history, having previously grown along freely and satisfactorily, it appears to stand still for a time until the growths are afforded the support they need, subsequent to which period they invariably go ahead again. For this reason Chrysanthemum plants are staked and tied, *i.e.*, the shoots are lightly yet securely looped to the stakes that are inserted here and there among the growths. Neglect in this work is a great misfortune, for, apart from the disadvantages that follow delay in this matter, the plants get out of shape and lose that pleasing contour for which carefully-grown Chrysanthemums are quite famous. To meet the probable requirements of the beginner, in Fig. 1 is shown just an ordinary small bush plant that is commonly found in most gardens where Chrysanthemums are grown for cut flowers or for conservatory embellishment. This illustration shows a plant that has been tied up wrongly. Observe how just one stake has been inserted in the centre of the plant, and the whole of the growths tied up at the waist, so to speak, rather tightly. This is a method of dealing with these plants that is by no means uncommon in many gardens. A moment's reflection should convince the novice of the absurdity of tying up plants in this manner. Bunched up as the shoots are when so treated, it is next to impossible to achieve results that are in the least degree pleasing, and it is a practice that should be most rigidly eschewed if the grower desires success to attend his efforts. The staking and tying should be done in such a way that both sun and air may exercise their ripening influence. When tied in tightly as seen in Fig. 1, this result is quite impossible.



1.—A COMMON FAILING. GROWTHS TIED IN A DENSE BUNCH.

In Fig. 2 the same plant properly staked and tied is shown. Here it will be noticed about half-a-dozen small stakes have been inserted, and in such a way as not to be very aggressive. It will be observed that the stakes are just sufficiently long enough to meet the requirements of the plant. Another fact that needs attention is that the stakes are disposed at such an angle as to keep the shoots well apart from one another, so that air may pass through them quite freely and that the sun may make its influence felt throughout the whole of the plant. Ripening the shoots under such conditions is a very simple matter. It would be possible with such small bush plants to insert a Bamboo cane or stout stake in the centre of the plant and to loop each of the shoots to this. To carry out this method of staking and tying satisfactorily, it would be necessary, first of all, to make a tie with raffia round the stake, and then to bring within another loop-like tie the growth it is desired to control. This must be done so that the loop allows sufficient play for the shoots in windy weather. This method of tying should be adopted in the case of all Chrysanthemums, and is clearly portrayed on the right of Fig. 2. Note the stake to which the raffia is tied, and then the loop-like tie that controls the shoot of the Chrysanthemum. The wisdom of this method of tying should be apparent to all. Before inserting the stakes in the soil of the pots or in the open border see that they are sharpened to a point. They should then be inserted 1 inch or 2 inches away from the base of the main stem of the plant.

D. B. CRANE.



2.—THE CORRECT WAY OF STAKING AND TYING UP.

LAYERING CARNATIONS.

ONE year, in addition to layering some plants in July, I did so in September and also the early part of October. The early-rooted layers were detached from the parent plants and kept throughout the winter in a cool frame, but the later ones were not disturbed until the following spring, when they were transferred direct to their permanent quarters. The late-rooted layers were very successful indeed; and although I should never think of depending solely upon such, and certainly not advocate late layering as a general practice, I am quite sure that cultivators would do well to layer many plants in September this year. In many gardens I find that the plants have made but poor growth, and consequently late layering may prove of great advantage. The strongest shoots must be selected, as the weakly ones would not make very good flowering plants next summer. The soil is kept moister if stones are placed over the buried portion of the layer.

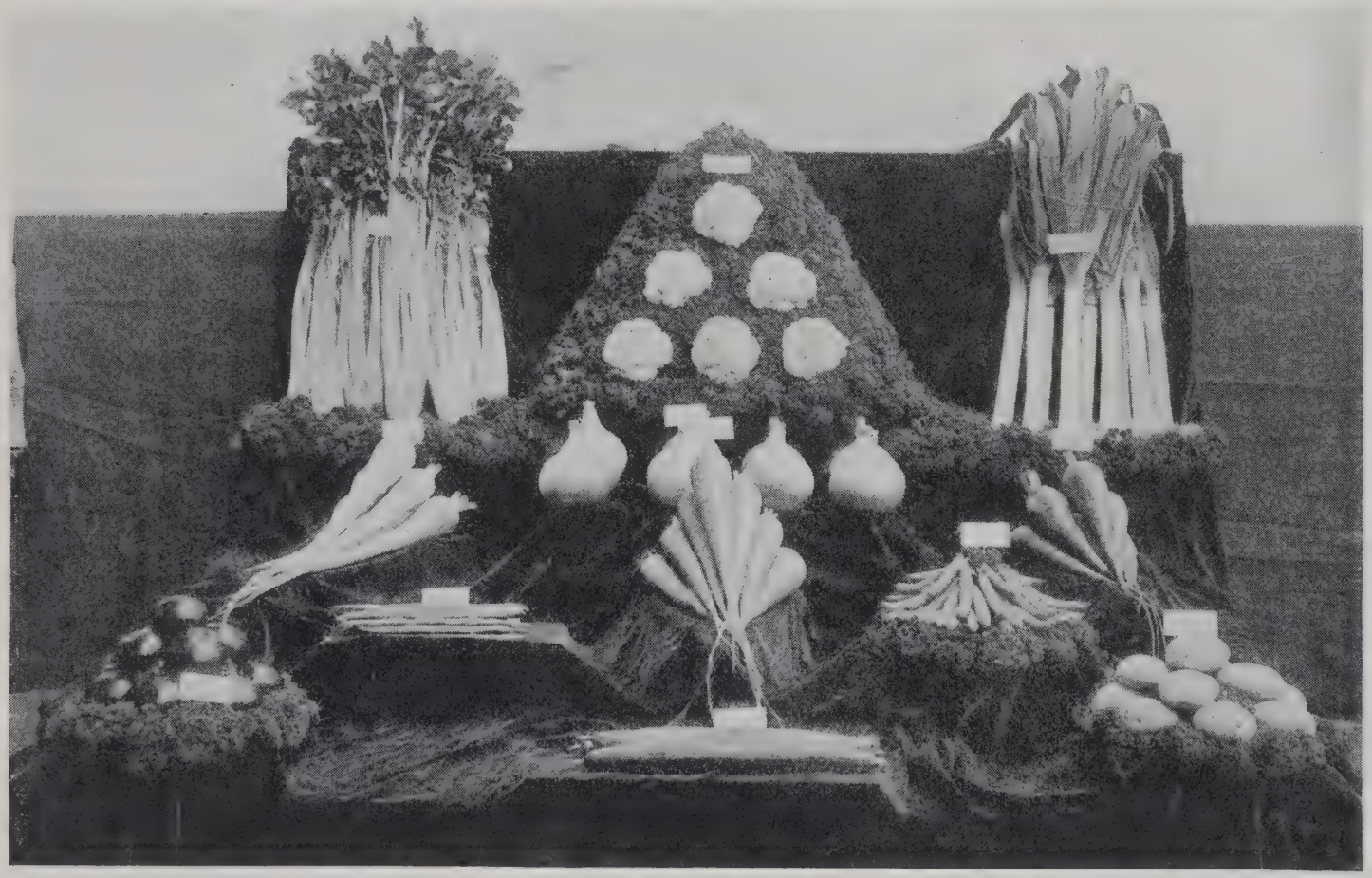
AVON.

THE PICTORIAL USE OF BEDDING PLANTS.

SOME thirty years ago, what we commonly call bedding plants, meaning tender things put out for summer use, were almost in exclusive use in our gardens, usurping the place of the good hardy plants in places of small and moderate size, and even invading the little roadside gardens of labourers' cottages. Then came the much-needed revolution and the restoration to favour of the fine hardy plants that we have now learnt to know and use so well. But in some cases the influence of the change has done injustice to some of the best garden plants of the late summer. It was not the fault of the scarlet Geranium, yellow Calceolaria and blue Lobelia, to name three showy things that were formerly forced upon our view in a wearisome repetition that ended by becoming detestable, especially when displayed in the form of a target-like circular bed, or, still worse, a senselessly waved ribbon border. The plants themselves, put to better use, are still among the best of our summer ornaments, and capable of giving delight in the place of something nearly approaching disgust. The whole difference consists in the matter of arrangement and of good grouping for colour effect. Some notes on a recent experimental planting, with good hope of further bettering within the next year or two, may be of use to some of those whose gardens are of such a calibre that, without undue strain, they can house and propagate the needful plants. These will be—to name some of the more important—Dahlias, Cannas, Gladioli, Geraniums, Salvias, Begonias, Verbenas, Calceolarias and Heliotrope, with Pentstemons, Snapdragons and Lobelia cardinalis, and half-hardy annuals; of these the most useful being the various kinds and colours of African Marigolds and some of the dwarf French Marigolds, China Asters in a very restricted range of colouring, and Ageratum.

Though all these fine things are in place in the formal parterre, yet their more enjoyable use is in free groups in wide flower-borders. The purpose of such a border or garden space is to have a brilliant display from the middle of July to the end of September. So long as this is attained it does not matter how it is done; that is a question of ways and means that will largely be answered by the skill, taste and ingenuity of either the gardener or the owner, or, best of all, by the two in frequent council. A certain number of the plants should be in pots for plunging, such as Fuchsias, Bouvardias, Campanula pyramidalis, Plumbago capensis, Daturas, Hydrangeas and the three indispensable Lilies, namely, longiflorum, speciosum and auratum, with an amply overlapping quantity in reserve for any shifts that may be desirable. Of Lilium speciosum, one of the most beautiful kinds, and one that is generally neglected, is the variety punctatum, whose general effect is a pale pink. This neglect is probably owing to the prominent pushing in trade catalogues of the stronger-coloured kinds; but the pure white and this delicate pink are not only more charming in themselves, but are also more easy to use in association with the colours of other plants. As a suggestion for the use of the late summer flowers, it may be assumed that some wide borders have to be treated, such as those of the present experiment. In this case the further portions are a little raised, and there is a rather bold permanent planting o Yuccas of the three most useful kinds, namely, gloriosa, recurva and filamentosa, the two first being of large size; also of the large Euphorbia Wulfenii. These masses of grey foliage are an excellent groundwork for white Snapdragons and nearly white Pentstemons, also for the pinks and purples of pink Verbena and Ivy Geranium Mme. Crousse and Heliotrope. There are also drifts of pale foliage of the small variegated sweet Geranium and of a capital old garden plant that is much neglected, the variegated form of Mentha rotundifolia; it is of extreme value with flowers of white, pale yellow, pale pink or purple colourings, quite hardy, but all the better for being used as a summer bedding plant from autumn-struck cuttings.

The flowers are arranged in bold drifts, running in the direction of a rather acute diagonal with the line of the path. This has an advantage over any kind of block-shaped grouping, giving a greater sense of freedom in the use of the plants and larger effects of colour mass when seen from either end. The strongest colour comes about midway in the length, the plants here being the fine dark-leaved Canna Adrien Rubini with crimson-leaved Amarantus, interdrifted with scarlet Lobelia and Gladiolus brenchleyensis. At the front edge, for some 2 feet in width, and running back here and there for a yard or so, always in the same direction as the diagonals, are the splendid scarlet Geraniums Paul Crampel and Raspail Improved—Paul Crampel slightly the better of the two, for though it is equally brilliant, it has a softer quality and is less violent. Geraniums of softer scarlet follow—a fine one is Mrs. Bartleman; this eases down the colour to the salmon shade of Geranium King of Denmark. Here are Cannas of moderate scarlet and soft flame colour and the fine Gladiolus William Faulkner, nearly matching King of Denmark. Red Pentstemons and Snapdragons are here intergrouped. Following are the lighter salmon Geraniums Wilhelmina and Countess of Osterwitz, softening down to the still paler Mme. Lemoine, a fine old Geranium with handsomely zoned leaf, and the quite pale, almost blush white Lady Harwich and Bridal Bouquet. All these Geraniums form a thick bordering, and here and there run up between the drifts of taller plants. But among the pale Geraniums comes again the variegated Mint, associating charmingly both with them and with the Hydrangeas plunged in the border further back, and the bold groups of the lovely pale Gladioli La Parisienne, Leo Errera and some with yellow grounds. Here, also, are yellow Cannas with bright green foliage, white Lilies (speciosum following longiflorum), and, at the back, variegated Maize and Lilium auratum. Between some of the drifts of scarlet flowers is a considerable planting of a most useful plant, a garden variety of the rather large, native Sedum Telephium. Its greyish mass is first useful as a foil to the strong colours, and, as the season advances, the wide-spread heads of bloom turn to a quiet chocolate red that harmonises delightfully with the brilliant colouring near. The use of such between-plants is of great value—a value that becomes more and more apparent every succeeding year that it is practised. It is impossible, within the limits of an article of reasonable length, to describe all the desirable combinations of the summer flowers;



THE FIRST-PRIZE COLLECTION OF VEGETABLES SHOWN BY MR. J. GIBSON IN THE PREMIER CLASS AT THE NATIONAL VEGETABLE SOCIETY'S SHOW.

but these notes may give some useful suggestions for treatment which will become all the more interesting when worked out by those who are in sympathy with such ways of gardening. Suffice it to repeat that, though for gardens in general hardy perennial plants are by far the most desirable, yet, when the conditions are favourable and the resources of the garden are not overstrained, pictures of flower-beauty of a more brilliant and, within a season, more durable nature can be made with the fine plants that are suited for putting out in summer. GERTRUDE JEKYLL, in *Country Life.*

NEW PLANTS.

GLADIOLUS YELLOW BEAUTY.—The dominating cream colour is shaded with greenish yellow in a flower of large and handsome proportions, the throat or tubular portion being stained with crimson. The spike, too, is well formed. Exhibited by Messrs. James Kelway and Sons, Langport.

Dahlia Bridesmaid (Single).—A well-formed flower of rosy lilac colouring.

Dahlia Killarney (Single).—The colour is terra-cotta with a rosy suffusion, the base of the florets being crimson. These two were exhibited by Messrs. J. Cheal and Sons, Crawley.

Dahlia Turtle Dove (Cactus).—A pretty shade of rosy pink in a nicely incurving flower.

Dahlia Mrs. Stephens (Cactus).—The predominant colour tone is cream, a somewhat deeper shade encircling the centre of the flower. The well-incurving florets are finely pointed. These were exhibited by Messrs. James Stredwick and Son, St. Leonards.

Nymphæa Mrs. Richmond.—This fine Marliac Water Lily is very suggestive of that famous raiser's Laydekeri rosea type, though it is distinctly superior to that good variety. A dappled or flushed pink is the dominating colour, the sepals being tipped with white. The variety is a novelty of some rarity also.

Nymphæa gladstoneana.—In Water Lilies of giant form and the purest spotless white, this noble and shapely variety is without an equal. Of ball-like outline or rotundity, the sepals partake much of this form, the whole flower being set off to advantage by a glorious tuft of golden yellow anthers. A surpassingly beautiful, if not absolutely unique, variety. These two were admirably shown by Mr. James Hudson, gardener to Mr. Leopold de Rothschild, Gunnersbury House, Acton.

Hibiscus syriacus Snowdrift.—Briefly, this may be referred to as a pure and much-improved H. Totus albus. The purity of the petals is a marked feature. Exhibited by Mr. R. C. Notcutt, Woodbridge, Suffolk.

Houlletia Wallisii.—The only plant to receive an award from the Orchid committee on this occasion. The plant shown carried a truss of fragrant and showy golden yellow flowers. The cup-shaped flowers are lightly spotted with dull crimson. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

NEW FRUIT.

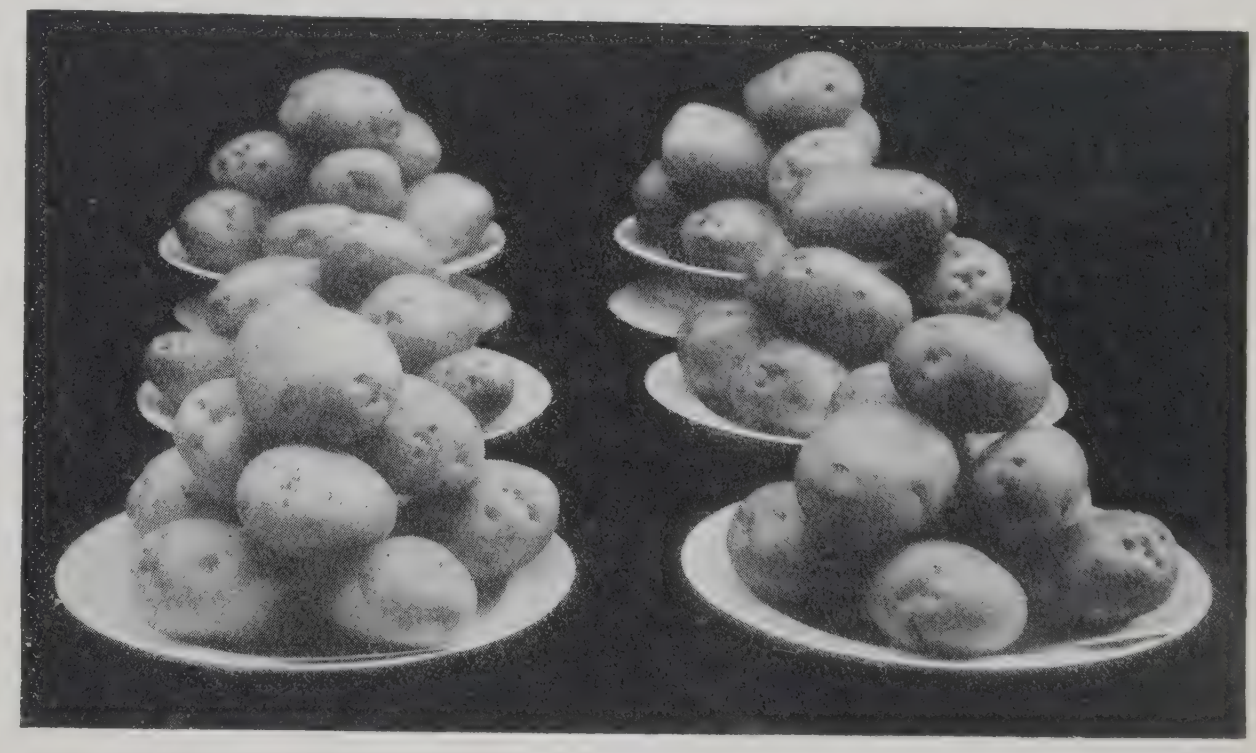
Plum Laxton's Blackbird.—A beautiful dark violet blue Plum of medium size. When quite ripe it is very palatable and of delicious flavour. We understand that it is a very heavy cropper, and, judging from fruiting branches shown, this is evidently the case. The new-comer was raised by crossing the varieties Czar and Curlew. Shown by Messrs. Laxton Brothers, Bedford.

The foregoing were brought before the Royal Horticultural Society on August 29, when each of the plants mentioned received an award of merit.

SOCIETIES.

THE NATIONAL VEGETABLE SOCIETY'S SHOW.

THE second annual exhibition in connection with the above society was held in the Horticultural Hall, Vincent Square, Westminster, on Wednesday, the 30th ult. Owing to the exceptionally hot and dry weather of the past summer, the exhibits were not quite so numerous as usual, but the quality was, in many cases, exceptionally and surprisingly good. The arrangements made by the hon. secretary and the committee were excellent in every respect.



THE WINNING EXHIBIT OF POTATOES SHOWN BY THE REV. A. TURNER IN MESSRS. CLAY AND SON'S CLASS FOR SIX DISHES.

COMPETITIVE CLASSES.

The premier class for twelve kinds of vegetables was won by His Grace the Duke of Portland, Welbeck Abbey, Worksop, with an excellent collection, reflecting great credit upon Mr. Gibson, the able gardener. The vegetables shown were Celery Superb Pink, Cauliflower Early Giant, Leek Prizetaker, Parsnip The Student, Onion Ailsa Craig, Beet Sutton's Black, Carrot New Red Intermediate, Runner Bean Best of All, Tomato Perfection, Pea The Gladstone, Cucumber Delicacy and Potato Superlative. This fine collection is illustrated on page 438. Second, Mr. W. Folkes, Ampthill, Beds; third, Mr. W. J. Lobjoit, Heston Farm, Hounslow.

The class for nine dishes, distinct, was won by H. T. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. W. Gaiger). The features of this exhibit were Tomato A1, Pea Gladstone, Carrot New Red Intermediate, Onion Ailsa Craig, Leek Prizetaker and Cauliflower Early Giant. Third, John Kerr, Esq., Loudwater (gardener, Mr. T. Avery).

Six kinds of vegetables (prizes offered by Lord Northcliffe): First, R. H. Comyns, Esq., Heath Farm House, Watford. The Onions, Carrots and Potatoes in this exhibit were remarkably good. Second, E. Deakin, Esq., Hay Mills, Birmingham; third, Mrs. Lewis Davis, Brynderwin, Hindhead (gardener, Mr. W. H. Masters).

Nine Tomatoes for quality and flavour, one variety: First, Mr. W. Hudson, Leicester; variety shown, Webb's Emperor. Second, E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson); variety shown, Perfection.

Some grand Tomatoes were shown in the class for six dishes, distinct. The first place was secured by the Duke of Portland, Welbeck Abbey (gardener, Mr. J. Gibson), with six good dishes, including Princess of Wales, Eclipse, Perfection and Best of All. Second, Mr. Hudson, Leicester; third, Mr. R. Standard, Hereford.

For three Tomato plants in pots, distinct varieties, the first prize was secured by Mr. Abbott, Regent's Park. His varieties were Moneymaker, Monarch and Queen Alexandra. Second, Mr. S. Mortimer, Rowledge, Farnham. The prizes were offered by George Monro, Esq., of Covent Garden with the object of showing the fruiting qualities of new varieties for market purposes.

The Proprietors of *Country Life* and THE GARDEN offered prizes for six dishes of Peas, distinct. This class was won by the Duke of Portland. The varieties shown were Duke of Albany, Peerless, Gladstone, Superlative, Alderman and Centenary. Second, R. H. Comyns, Esq, Heath Farm House, Watford.

For three dishes of vegetables, distinct, to be selected from kinds mentioned in the schedule, H. T. Tatham, Esq., Kendall Hall, Elstree, won first prize, showing Kohl Rabi, Celeriac and Silver Seakale Beet. Second, the Rev. A. Turner, Woburn Park, Weybridge (gardener, Mr. A. Basile); third, Lady Tress Barry, St. Leonards Hill, Windsor (gardener, Mr. R. Brown). The prizes for the little-grown vegetables shown in this class were offered by the Editors of *Country Life* and THE GARDEN.

Messrs. Clay and Son offered prizes for six dishes of Potatoes. The Rev. A. Turner was awarded first prize in this class after a very close contest, in which the *élite* of the vegetable-growers of the kingdom took part. This was certainly one of the best-contested classes in the show, and the produce was in every way excellent. (See illustration below.) Second, Mrs. Austens, Capel Manor, Horsmonden (gardener, Mr. A. Woodgate); third, Viscount Goschen, Seacox Heath, Hawkhurst (gardener, Mr. J. Gilmour).

For six dishes of vegetables, distinct, open to cottage gardeners and allotment-holders in the County of Surrey, the first prize was secured by Mr. I. Childs, Cranhurst Farm, Milford, Surrey, with a neat little collection. Second, Mr. E. Spooner, Hambledon, Surrey; third, Mr. C. Peacock, Surbiton Hill. All of the collections were in every way creditable. Prizes in this class were given by the chairman of committee.

Best six heads of Celery: First, H. T. Tatham, Esq., with the variety Barr's New Solid Pink.

One dish of Potatoes: First, Viscount Goschen with a capital dish of Barr's Improved Snowdrop.

Messrs. William Cutbush and Son's class for twenty-five dishes of vegetables was won by that famous exhibitor, Mr. E. Beckett, gardener to the Hon. Vicary Gibbs, Aldenham House, Elstree. It was a magnificent collection and quite worthy of the source from which it came. The background was occupied with Celery Matchless White and Aldenham Pink, Cauliflower Snowball and Autumn Giant. In the foreground were splendid examples of Carrots Main Crop, Onions Barnet Hero and Ailsa Craig, also Tomatoes, Turnips, Beetroots and Cucumbers. For two bunches of Tomatoes Mr. T. Abbott, gardener to C. Newington, Esq., The Holmes, Regent's Park, was first with fine trusses of Dickson and Robinson's Moneymaker Tomato.

Best six Onions, Dickson and Robinson's Premier: This was a well-contested class. First, the Right Hon. Lord Curzon; second, A. Gallials, Esq., Slough (gardener, Mr. E. Johnson); third, J. Kerr, Esq., Loudwater, Rickmansworth (gardener, Mr. T. Avery).

Best six Leeks, Dickson and Robinson's Exhibition: First, Mr. S. Barker, Worksop; second, Mrs. Bernard, Bridgwater (gardener, Mr. W. Cox).

Best six Carrots Scarlet Perfection or Matchless: There were eight competitors in this class. First, Mr. W. T. Jures, Holbeach; second, the Right Hon. Lord Curzon; third, Mr. T. King, Chippenham.

Best six Celery Prize Pink: Some splendid produce was shown in this class. First, the Right Hon. Lord Curzon; second, J. Kerr, Esq.; third, Mr. S. Barker, Worksop.

Best six Beet Market Favourite: There were no fewer than twelve keen competitors in this class. The premier prize was awarded to John Kerr, Esq., with perfect examples of good culture.

One dish of Dickson and Robinson's Exhibition Runner Bean, twenty-five pods: Considering the season the Beans in this class were remarkably good. First, Mr. W. Coleman, Buckingham; second, Mrs. Bernard, Bridgwater.

Best six Parsnips, Dickson and Robinson's Selected: Excellent roots were shown in this class, some of them close on 3 feet in length. First, the Right Hon. Lord Curzon; second, the Rev. A. Turner.

Six Dobbie's International Prize Leek: There were twenty-five good competitors, and the winners put up some grand produce. First, Mr. R. Stuart, Lauder, Berwickshire; second, Mr. J. E. Ellison, Haydon Bridge; third, Mr. R. H. Thompson, Stafford.

Two dishes of Potatoes, to be selected from varieties given in the schedule: Competition was excellent in this class, and the tubers shown left nothing to be desired. Over fifty competitors were in the field, the first prize going to the Rev. A. Turner; second, Mr. M. Hood, Ashford; third, Sir C. J. Jessel, Bart., Goudhurst; fourth, J. Neilson, Esq., Castle Douglas, N.B.

A number of prizes were offered by Mr. Robert Sydenham, including that for nine distinct kinds of vegetables. In this class a splendid collection by the Hon. Vicary Gibbs carried off the first prize. Other keen competitors in this class were Mr. W. Folkes, Ampthill, Beds, and Mr. J. White, Bampton, Oxford.

Six distinct kinds of vegetables. Another good class. This was won by B. H. Ling, Esq., Berkhamsted (gardener, Mr. Bedford); second, Mr. E. Deakin, Birmingham; third, A. W. Stirling, Esq., Goring.

Eight Onions, one variety: Mr. W. Folkes was first with uniform bulbs, followed by the successful exhibitor, the Rev A. Turner.

Mr. Folkes was likewise first for six Lyon Leeks.

The Rev. A. Turner was first for two dishes of Potatoes, distinct, after an excellent contest.

Messrs. Robert Veitch and Son, Exeter, offered prizes confined to the Western Counties. Mrs. Bernard secured the first place for a collection of six kinds of vegetables selected from given varieties. It was an admirable collection, staged in a masterful manner.

Four dishes of Potatoes, distinct: Competition was good in this class, the first prize going to Mrs. H. Denison, Little Gaddesden, Berkhamsted (gardener, Mr. A. G. Gentle).

For six Onions, distinct, one variety only, the first place was secured by the Right Hon. T. F. Halsey, Gaddesden Place, Hemel Hempstead (gardener, Mr. H. Folkes).

For twenty-four Runner Beans the first place fell to the Rev. L. C. Chalmers Hunt, Hitchin, who had a very nice dish indeed.

Twenty-four pods of Peas: First, Mr. F. J. Gentle, King's Langley.

Two Marrows: First, Mr. J. Fossey, Hendon, with a beautiful pair in the very height of perfection.

Three varieties of Celery, distinct, three heads of each: First, Mrs. von Hartmann, Allcard, Wimblehurst, Horsham (gardener, Mr. Sparkes).

Some splendid produce was shown in the classes open to amateurs and cottagers only. For six kinds of vegetables the first prize went to Mr. W. Humphreys, Elstree, closely followed by Mr. H. Keep, Aldermaston.

Three dishes of Potatoes, distinct: Like all the other Potato classes, this proved to be a great success. The first prize went to Mr. T. King, Chippenham.

That well-known exhibitor, Mr. Thomas Jones, Ruabon, was first for six Onions.

Mr. H. Keep, Aldermaston, was first, after a keen fight, for the premier place for six Beets.

NON-COMPETITIVE EXHIBITS.

A collection of vegetables shown by Messrs. Sutton and Sons, Reading, called for general admiration. The group, which was magnificently staged, was full of interest, and presented a fine example of high cultivation. In the foreground were Parsnips Tender and True and Student, both with tapering roots about 3 feet in length, Onions Ailsa Craig and Red Rocca, numerous Tomatoes, Marrows and Radishes, Runner Beans Prizewinner and Best of All, and Peas Selected, Gladstone and Centenary Marrowfat. In the background were noted splendid examples of Onions White Leviathan and A1, Leeks Prize-taker and Celery Sulham Prize. A collection of Tomatoes grown in the open air was shown by the same firm. The two best open-air varieties were Satisfaction and Abundance. Large gold medal.

Messrs. Dobbie and Co., Edinburgh, showed an admirable collection of Potatoes. The collection, which was quite a representative one of the leading varieties, was neatly staged, and well deserved the society's gold medal awarded to it.

Messrs. Barr and Sons, King Street, Covent Garden, staged a most creditable collection, gaining the society's gold medal. The quality of the produce was good throughout, the strongest features being Onions Giant Globe Rocca, Ailsa Craig and Trebon's Selected, Cabbages Late Queen, Autumn Exhibition and Miniature Red, Celery Covent Garden, Tall White and Solid Pink, Marrows Long White Ribbed and Long White, Tomatoes Northern King and Golden Jubilee, and Potatoes Snowdrop, Eightyfold, Midlothian Early and Britannia.

A very attractive collection of the Manchester Melon was exhibited by Messrs. Dickson and Robinson, Cathedral Street, Manchester. About two dozen fruits were shown, all of which were uniform in shape, of serviceable size and handsomely netted.

Messrs. Carter Page and Co., London Wall, received a silver medal for a first-rate exhibit of Tomatoes.

Mr. S. Mortimer, Farnham, Surrey, showed two new Cucumbers, namely, Cynosure and Unrivalled, both of which appear to be promising varieties. Silver medal.

ROYAL HORTICULTURAL SOCIETY OF IRELAND.

UNDER the auspices of the Royal Horticultural Society of Ireland, the autumn show was held on August 22 in Lord Iveagh's grounds, Stephen's Green. The weather was very favourable, and there was a large attendance during the afternoon. The chief feature of the show was the trade exhibits. Mr. S. A. Jones, The Nurseries, Kilkenny, staged a fine lot of Gladioli. America, La Reine and the new primulinus hybrids were especially good in this collection. Messrs. Hogg and Robertson of Dublin and Rush also staged magnificent spikes of Montbretias and Gladioli, many seedlings of much merit being included. The Tully Nurseries, Kildare, are noted for the excellence of their exhibits, and on this occasion their collection of Gladioli was very much admired. Especially fine spikes of Bandeliero, Mme. J. Hennequin, Corsaire and White Eagle were noted. A conspicuous exhibit was the collection of hardy herbaceous flowers staged by Messrs. Drummond and Sons of Dublin. Japanese Acers and varieties of Quercus were also included in this group. Gold medals were awarded to these firms. Other prominent exhibitors were Messrs. Ramsay, Balls Bridge, with a collection of greenhouse plants, hardy flowers, Ferns, Liliums, Roses, also several excellent floral designs. Messrs. Watson, Clontarf, staged Clematis, some well-grown plants of Nephrolepis in variety, also some exceedingly artistic floral designs. Messrs. Pennick, Delgany, arranged a group of conifers and flowering shrubs: excellent specimens of Picea pungens glauca kosteriana, Cupressus macrocarpa lutea, Pittosporum undulatum, Acers and Veronicas were prominent in this small but interesting collection. The same firm also staged dishes of Apples, a dish of James Grieve being of special merit. Mr. W. S. Rylands, Stillorgan, showed an excellent collection of Violas and Pansies. Some fine sports were noted in this exhibit. Mr. W. Wells Bladen of the French Gardens, Dundrum, staged a number of Canteloupe Melons, also baskets of Tomatoes. Messrs. Hugh Dickson were the winners of the four first prizes for Roses, open to nurserymen only, winning the silver-gilt medal for a stand of seventy-two blooms. For twelve blooms, distinct, introduced since January 1, 1908, this firm were also awarded a silver-gilt medal. They were first for a stand of twenty-four Tea Roses, twelve varieties; excellent blooms of W. R. Smith and Mme. Constant Soupert were included in a stand of very superior quality. The highest honour for a table of Roses, 8 feet by 4 feet, arranged for effect, was won with a tasteful arrangement of excellent blooms. Bamboo stands filled with Irish Elegance, Simplicity and other decorative varieties with Rose foliage surmounted vases of Frank Thorpe, Harry Kirk, La Tosca, General Macarthur and numerous others. The Roses exhibited by this firm formed, considering the drought experienced this season, also the heat on the day of the show, a very meritorious collection. The Countess of Aberdeen contributed a collection of foliage plants, well-grown Codiæums being conspicuous. Some excellent dishes of Peaches were also shown from the Viceregal Gardens. There were thirty classes devoted to Sweet Peas, and many of them were well contested. The quality of the flowers was, however, in many cases poor, and the drought experienced recently had evidently been a severe drawback in their cultivation. For a collection of eighteen bunches in eighteen distinct varieties, the first prize, the society's gold medal and £1 were won by James Hall, Esq., Moy. Other noticeable winners in the Sweet Pea classes were Miss Rowley, Lady Redmond, Mrs. Butler and Lord O'Neill. For a collection of hardy cut flowers, Mrs. Mitchell was the prize-winner, staging a splendid variety of choice subjects. The challenge cup, value £10, presented by Lord Ardilaun (the cup to be won three times before becoming the property of the winner), for a stand of twenty-four Roses, was awarded to J. Campbell Hall, Esq. (gardener, Mr. Faris). For six vases of garden Roses in six varieties, prizes presented by T. Smith, Esq., Newry, Mrs. Butcher was the successful exhibitor.

ABERDEEN HORTICULTURAL SOCIETY.

THE annual three days' show of this society was opened on August 17 in the Duthie Park, Aberdeen. Colonel Gill occupied the chair at the opening ceremony, which was performed in a neat speech by Princess Alexis Dolgorouki. The Princess expressed the opinion that all over the world Scottish gardeners were considered to be the best, and added that they must be careful not to lose that reputation. The show was universally considered one of the best which has been held in connection with the society, and in several departments the winning exhibits could not well be surpassed.

In the section for cut flowers the quality was of a very high order, and the competition keen in almost all of the classes. Sweet Peas were very fine, and in the classes for these the leading class prize was taken by Mr. J. A. Grigor, Seapark, Forres, who occupied a similar position at the Perthshire Sweet Pea Show. His flowers were again very fine. Cactus Dahlias were also very fine, Mr. J. Lockhart being first. Mr. A. Douglas, Keppelstone, who won the prize for twenty varieties of cut flowers and fine-foliaged bedding plants, was a good exhibitor. In the Rose classes the leading prize for eighteen blooms, open to all, was won by Mr. A. Brebner, Dalbeity, who staged a lot of fine blooms. Table decorations were also excellent, and here Mr. W. Cormack, Dyce, was the leading winner. Amateurs and working-men showed well in the cut-flower section, and this department of the show deserves more space than can be spared to do it justice.

In the pot-plant department the quality was exceedingly fine, and it must be many years since such a good display of pot plants was exhibited at this show. Among the leading winners in this department were Mr. A. Brebner, Dalbeity; Mr J. Leggat, Balgownie; and Mr J. Elder, Norwood, Cults. Mr. Brebner won with specimen plants in flower, Ferns, Gloxinias, &c. The amateur section was also very good indeed, and Mr. G. Maitland, Woodside, gained the distinction of winning the Ogilvie Cup for his group of plants. This is the third time Mr. Maitland has carried this off, and he now becomes the owner of the cup. The working-classes section in this department was also unusually fine, and Mr. Alex. Coull, who was the leading winner, deserves congratulations on his success.

The vegetable and fruit classes were excellent, as usual at this show, and the winners too numerous to detail. It may be mentioned, however, that Mr. W. Scorgie, Springhill Gardens, Aberdeen, won the first prize for a collection of vegetables with an exceptionally fine lot. Onions were specially fine, and Mr. J. A. Grigor had a well-merited success with these in the class open to him. Amateurs and working-men also did themselves high credit by their exhibits in these departments of a capital show.

In the nurserymen's cut-flower department Messrs. James Cocker and Sons, Aberdeen, were the winners for the third time of the challenge cup for thirty-six Roses, so that it now becomes their property. The blooms were very fine, and the success of the local firm was a popular one.

SCOTTISH HORTICULTURAL ASSOCIATION.

ON August 19 a large party of the members of this association took advantage of the opportunity of visiting Manderston, Duns, on the kind invitation of the Hon. Lady Miller. The company numbered about seventy, and included Mr. W. H. Massie, the president, and a number of the other office-bearers and members of the council. On their arrival they were hospitably entertained to lunch by Lady Miller, and thereafter, accompanied by their hostess and guided by Mr. J. Marshall, the gardener, and Mr. Moir, the visitors inspected the gardens, dairy, &c. Lady Miller pointed out the leading features of the flower garden, which, notwithstanding the dry weather, reflected high credit upon Mr. Marshall and his staff. The plants grown are representative of the best types, and are arranged with great taste and skill. A prominent feature of the gardens is the fine pergola, while the magnificent wrought-iron gates and the Roman statuary were also much admired. Lady Miller was warmly thanked by the company, on the motion of Mr. Massie. An opportunity was also taken of visiting the garden of Mr. A Malcolm, Town House, Duns, and the Duns Public Park. Mr. Malcolm's Sweet Peas were much admired, and this opportunity of seeing some of the new varieties in Mr. Malcolm's garden was eagerly seized and greatly appreciated.

BALSALL FLOWER SHOW.

THE Balsall district abutting on Berkswell Railway Station recently inaugurated a show of horticulture and poultry produce, the exhibition including in its area the three parishes of Berkswell, Temple Balsall and Barston. The weather was very fine and the show a decided success, both from the exhibitors' and the attendance points of view. There were five divisions for exhibitors, and the combined entries numbered about six hundred. The exhibition was fortunate in having a number of fine groups of plants not for competition, these coming from the gardens of Mr. J. H. Wheatley, Mrs. Feeney, Mr. Hugh Mitchell, Mr. G. J. Eveson and Mr. Gunn (Olton), while another striking feature of the principal tent was the ten table decorations competing for prizes offered. The premier award went to Mrs. H. Reeve, whose exhibit was of pink Sweet Peas; the second to Mrs. T. Batchelor for flesh-coloured Carnations; and the third to Mrs. H. P. Phillips with like flowers. In Division I., open to amateurs and gentlemen's gardeners, Messrs. Hornsby, Ellis and Ewen and Mrs. Silk were prize-takers for plants. The prizes for cut flowers, also a good exhibition, went to Mrs. Batchelor, Mrs. Synyer, Miss Gladstone, Messrs. W. Walshaw, A. Dale and F. W. Elson. Sweet Peas are evidently a favourite cultivation in Balsall and neighbourhood, for, in addition to their predominance in the table decorations, there was a competition for a vase of blue flowers. Here the principal prize fell to Mr. H. Williams. The fruit awards in Division I. went to Mrs. Synyer, Mrs. Batchelor, Miss Gladstone and Mr. Phillips. The vegetables in all departments were, considering the season, a good show. The prizes for the best-kept cottagers' gardens went to Messrs. W. Gold, H. Willesden and J. Tandy (Barston), and W. Busby (The Marsh).

LANGHOLM HORTICULTURAL SOCIETY.

THIS society held its annual show in the Buccleuch Hall, Langholm, and it proved very successful, although there was a reduction in the number of entries. The leading feature of the show was the section for cut flowers, in which the Sweet Peas were exceptionally good. In the pot-plant classes the competition was limited, the leading winners being Mr. T. Boyd, Mr. W. Rae, Mr. R. Snowdon, Mr. W. Turnbull, Mr. J. Tweddle, Mrs. Lunn, Mr. T. Little, Mr. T. Bell, Mr. D. Cooper and Mr. A. Irving. For cut flowers the principal prize-takers were Mr. John Hotson, Mr. J. Tweddle, Mr. T. Little, Mrs. Lunn, Mr. J. Grieve, Mr. T. W. Elliot, Mr. A. Irving, Mr. W. Rae, Mr. T. Bell, Mr. G. Johnstone, Mr. J. Varty, Mr. T. Grieve and Mr. J. McVittie. Mr. J. Hotson was the leading winner here. Vegetables were very good, Mr. G. Johnstone, Mr. J. Jardine, Mr. J. Grieve, Mr. W. Bell, Mr. W. Turnbull, Mr. J. Tweddle and Mr. A. Irving being well to the front with these.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

KEW IN AUTUMN.

THE charms of Kew in springtime, when Nature is rapidly awaking from her winter slumber, and when brilliantly-coloured flowers and the verdant carpets of turf give pleasure to the eye and rest to the weary mind, have often been sung; yet we do not remember any poet finding sufficient beauty in the National Botanic Gardens in autumn to stir him into activity. It is true the turf is scorched and brown, and that the fresh greenness that we find in spring has given place to the more mellow tints of autumn, yet beautiful and interesting features are to be found on almost every hand by those who have eyes to see. The present year has been an exceptionally trying one for gardening. Even where the soil is of a retentive character, vegetation has suffered to a very great extent, and in places like Kew, where sand forms a large percentage of the natural soil, the cultivation of plants has been more than usually difficult. The heat has, however, been beneficial in a few respects. Plants and shrubs that flower but sparsely in the open in ordinary seasons have this year responded to the exceptional weather with a lavish display. Hard by the Berberis Dell, not far from the tall flagstaff, the Hibiscus collection is imparting quite a tropical aspect to the landscape. It is marvellous what a range of colours and forms are to be found in the numerous varieties of the one species syriacus. Pæoniflorus, with double, Pæony-like flowers of bright rose colour; flore albo plena, double white with crimson spots; puniceus pleno, semi-double flower of exquisite form and rich rose colour; and cœleste, a single form whose blueness compares favourably with a summer sky, are four that we select from a dozen or more distinct sorts. Light soil and warm weather suit these hardy shrubs, which add, in a season like the present, not a little beauty to the autumn garden.

The two hardy Clerodendrons, viz., trichotomum and fœtidum, are also enjoying the heat. It is true the curious shaped flowers of the former have departed, but the brilliant red calyces remain. Fœtidum still retains its trusses of ruby red, fragrant flowers, for be it known that the obnoxious scent belongs alone to the foliage and is emitted only when the latter is bruised. Near by the large Temperate House the species of Pyrus, or Crab Apples, are rapidly ripening their fruits The Dartmouth Crab, in its livery of scarlet and gold, already adds a brilliant and autumnal tint to the scene, and before long Pyrus Ringo, with its chains of golden Cherry-like fruits, will be a sight worth going far to see. Rosa alpina pyrenaica, in small bush form, near the Pagoda is resplendent with its long pendulous scarlet fruits, which form a brilliant contrast to the dull, purplish bronze foliage. Not far away, and in line with the Cedar Avenue, the visitor can see a border filled with species of Rubus, most of them recent introductions from China, and many as yet unnamed. Several vigorous-growing kinds with white stems should prove valuable for creating winter pictures in the woodland; but until they have been properly named it is useless to descant on their merits.

Those who would find an oasis of greenery in a desert of scorched herbage should wander into the Bamboo Garden. Here Phyllostachys and Bambusa vie with each other in their many and varied forms for the premier place, their delicate and beautiful green foliage proving both pleasing and restful to the eye on a torrid autumn day. And so we might continue to write of the charms of the Arboretum in autumn; but we must close with mention of Sophora japonica, a Chinese tree which, though introduced to this country in 1753, is not to be found in many of our gardens. Just now the trees of this at Kew are covered with their pale, primrose-coloured flowers, which form a happy hunting-ground for the honey-bees.

An annual flower that is thriving well in the herbaceous border and also the rock garden is Hunnemannia fumariæfolia, a beautiful Poppy-like plant from California. Evidently the hot weather suits this to perfection. Its glaucous, pinnate foliage resembles to some extent that of the Eschscholtzia, and its golden yellow flowers, borne on slender stems, remind us forcibly of the Iceland Poppy. For a hot and dry situation this annual should prove useful. Roses near the Palm House are, thanks to copious waterings, giving a moderately good display of blooms, and the vases filled with Ivy-leaved Pelargoniums Mme. Crousse, that flank the steps leading up to the plateau on which this structure stands, are a beautiful sight, and perfectly in keeping with the surroundings. As much, however, cannot be said for the Pelargonium-filled beds between the Palm House and the Lake. A flat expanse of scarlet and silver, laid out in beds of fantastic

but meaningless form, best describes this attempt at summer bedding. In days gone by, when clipped Hollies guarded the corners to this otherwise flat garden, it was regarded as an eyesore, but the Hollies did, at least, relieve to some extent the flatness and gaudiness that are now so painfully apparent.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 18. — National Chrysanthemum Society's Floral Committee Meeting at Essex Hall, Strand. International Conference on Genetics at Paris (six days).

September 20.—National Dahlia Society's Show in the Royal Botanic Gardens, Regent's Park (two days). North of England Horticultural Society's Meeting and Exhibition at Leeds.

Royal Agricultural Society of England. — The seventy-third annual show of the Royal Agricultural Society of England will be held at Doncaster (on the Race-course) from Tuesday, July 2nd, till Saturday, July 6th, 1912.

The National Dahlia Society's Metropolitan Show.—The second or metropolitan exhibition in connection with the above society is to be held at the Royal Botanic Gardens, Regent's Park, N.W., on the 20th and 21st inst. Judging by the number of entries received, the committee confidently expect a very fine display of Dahlias. Visitors to the show will also be able to see, free of charge, the large Water Lily Victoria Reginæ, with leaves 8 feet in diameter, Bananas fruiting, Sugar canes and other stove or tropical plants. It is quite probable that the large Water Lily will be in flower at the time of the show. Full particulars of the exhibition can be obtained from Mr. E. F. Hawes, Royal Botanic Gardens, Regent's Park, N.W.

The Horticultural Trades Association.—The thirteenth annual meeting of nurserymen and seedsmen took place this year at Exeter under the presidency of Mr. Peter Veitch, proprietor of the famous Exeter Nurseries. The visitors were favoured by ideal weather, which helped to make the meeting one of the most enjoyable ever held. The first day was filled by business meetings, the inspection of the local nurseries, Cathedral and the old Guildhall with its interesting Stuart portraits, regalia and other subjects. The second day was spent at Bicton, by kind permission of Lord Clinton, where the magnificent collection of conifers and gardens filled with rare plants and flowers, which require the shelter of glass in the North, provided a horticultural feast, of which a glorious plant of the lovely single white Macartney Rose was an item which will perhaps linger longer in the memories of those present than any other. A trip along the coast from Exmouth to Dartmouth and up the Dart to Totnes was the concluding item of the programme, providing a varied panorama of exquisite scenery which defies adequate description. These gatherings, in addition to affording opportunity for the discussion of trade problems and difficulties, bring together members of the nursery and seed trades from every part of the United Kingdom, and by pleasant social intercourse promote a feeling of good-fellowship and harmony beneficial to all concerned. Mr. A. W. Paul, Waltham Cross, was elected president for the coming year.

Show of forced spring bulbs. — A special exhibition of forced spring bulbs will be held in the Royal Horticultural Society's Hall, Vincent Square, Westminster, on March 5 and 6, 1912. The object of this show is to demonstrate the varieties best suited for gentle forcing, and exhibits of small and large collections are invited from amateurs and the trade. Medals will be awarded according to merit, and numerous prizes will be presented by the General Bulb Growers' Society of Haarlem. Mr. Robert Sydenham also presents handsome prizes on this occasion. The latter are for competition among amateurs, the classes being for Hyacinths, Tulips and Narcissi grown in moss fibre.

General Bulb Growers' Society of Haarlem.—The following awards were given at the August meetings of the floral committee: First-class certificate to Gladiolus gandavensis Europa, pure white flowers, spotted wine red at the base of the petals, raised from seed. Awards of merit to Gladiolus gandavensis Niagara, a new variety, flowers nankeen yellow, striped violet, raised from seed; Gladiolus gandavensis Lieberfeuer, with fine-shaped flowers, fiery scarlet red, striped violet, a new variety, raised from seed; Canna Tiercelet, a new variety with pure yellow flowers of a very good form and size; Canna Hungaria, a new variety, flowers of bright rose, petals large and good flower-spike; Cactus Dahlia Conquest, a new variety, flowers dark brown, of very good form and size, flower-stalk very firm (1910); Cactus Dahlia Crystal, a new variety, flowers rose and white, flower-stalk very firm (1911); and Cactus Dahlia The Imp, a new variety, flowers brownish black, of medium size, flower-stalk very firm (1911).

Festival of Empire awards. — The following awards have been won by exhibitors in the horticultural section at the Festival of Empire and Imperial Exhibition at the Crystal Palace: Grand Prix to The King's Acre Nurseries, Limited, for a model orchard, garden exhibit and fruit trees in pots. Diplome d'honneur to Messrs. Toogood and Sons, Southampton, for garden and seeds exhibit; and The Bromsgrove Guild for garden ornaments. Gold medals to Mr. Hemsley for rock and water garden and fernery; Messrs. Cheal and Sons, Crawley, for garden and rockwork; Messrs. B. Maggs and Co. for garden seats, &c.; Messrs. Alex. Shanks and Son for lawn-mowers; and Messrs. Barford and Perkins for rollers. Silver medals to The Harrow Nursery Company for Roses; Messrs. B. Horton and Sons for garden fencing; The Beach Chair Company for garden chairs; and The Acme Patent Ladder Company for an exhibit of ladders. Bronze medals to Ye Tudor Rose Shoppe for a garden and flower shop; and Messrs. Turrell and Hollick for garden seats.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The International Horticultural Exhibition.—One thinks that the Fellows of the Royal Horticultural Society who live at a considerable distance from London might have received a little more consideration in the arrangements between the Royal Horticultural Society and the International Horticultural Exhibition. I share with others who have written you in the feeling that the Royal Horticultural Society might have had better terms for all their Fellows as the charges for admission to the exhibition are so high. But the case of Fellows who reside at a considerable distance from London is worse still. They cannot participate fully in the many advantages offered to the more fortunate who live in or near London, and who can attend a number of the fortnightly meetings without incurring much expense, and also enjoy the Temple and the summer show besides other functions as well as take advantage of the library. They have in many cases a considerable sum to spend in the shape of railway fares, and have generally in addition, hotel charges, which, even on the most reasonable scale, soon run up. To these a visit to the International Horticultural Exhibition must mean a considerable outlay, and most of them will feel that the Council of the Royal Horticultural Society have not made a very favourable bargain. As they receive some consideration in the shape of a few additional plants in the annual distribution—a privilege which counts now for but little—they might well have had special terms. The plea advanced by "A. D." on behalf of the gardeners will receive hearty sympathy from many and not the least from—A COUNTRY FELLOW.

The flora of the Malay Archipelago.—Four years ago I began collecting plants of the Indian and other floras, and I have now some thousands of species, many of them producing seeds. There are Brazilian, Cape, Mexican, Australian and British Indian species, and also a lot of plants growing wild in the vicinity and in several parts of Java. Some of the European and American plants produce seed, but many of them, especially shrubs and trees, do not succeed on account of there being no resting period, and also of the rains being too frequent and of too long duration, as well as too heavy. Australian shrubs and trees generally do well. Eucalypti are fine trees but have not flowered as yet. Plants that will not succeed in the open will do so if kept in pots and protected from rain. I am ready to send seeds of all species that are available to anyone asking for them, but at my own choice; if asked for special species, it might be possible that they would not be at hand just at the time. I shall be glad to get seeds of any valuable plant in exchange. If the Editor permits, I will give a list with some remarks of the species in this journal.—M. BUYSMAN, *Lawang, Java Botanic Garden.*

Rose Excellency Van Teinhoven.—I venture to call readers' attention to the above which is described as a Hybrid Perpetual, though I am inclined to think it is a Hybrid Tea. The colour is beautiful crimson, and the flower has a full, pointed centre and excellent form, and it blooms very freely; in fact, it is never out of bloom during the season. The habit of growth is dwarf, not exceeding 1 foot in height with me but sturdy, and as it is a mass of bloom it should be an excellent bedding variety. My plant was inserted rather deeply the first year, and on raising it I found most of the side growths had rooted, so that by separating these I now have six plants and I should say this free rooting is rather a feature of the Rose. My plant came from Messrs. Cant, and I see Merryweather also lists it but so meritorious is it that I cannot understand why it is so little known and named in so very few catalogues. From my experience (within three miles of a manufacturing town) I am so much impressed with it that I should class it as one of the best twelve all-round Roses, and I heartily recommend others to try it.—V.

Annual flowers at the International Exhibition.—On looking over the schedule of prizes for the Royal International Horticultural Exhibition of 1912, I was surprised to see that there is only one class for annuals or biennials, and even that exhibit is limited to 100 square feet. Considering the important part that annuals now play in many gardens, and the vastly-improved varieties of most of them that have been brought out within recent years, surely more space could have been allotted to these charming and useful plants. It must be remembered that in a space of 10 feet by 10 feet it will be quite impossible to stage a representative collection of annuals, which must be classed as everybody's flowers, and whose value in the garden is appreciated more year by year. We shall, I suppose, have groups not for competition contributed by various firms, in which case it is to be hoped that some of them will show that an effective and valuable display can be made by annuals alone where the space is not limited to 100 square feet. Even herbaceous Calceolarias are assigned the same amount of space—none too much, it is true—but for their value in the garden they cannot for one moment be compared with hardy and half-hardy annuals in general.—H. P.

THE ROSES' RITUAL.

When the toil of day is over,
I roam in my garden of rest,
With the charm of Roses round me,
And the sunset's glow in the West.

The richest of royal-red Roses,
Holding pageant with golden queens,
Maidens with beautiful blushes,
Tall gallants in manifold greens.

Some bow their heads in devotion,
To breathe forth a cloistral prayer;
Ritual of Roses at twilight—
Their incense is filling the air.

When the toil of life is ended,
And the sun sinks low in the West,
With the Roses' incense around me
I'll play in the cloisters of rest.

W. V. J. KITLEY.

Greenery in the town garden.—Valuable as is the common Ampelopsis for supplying delightful, cool greenery in towns, and especially in covering hot, red, arid brick walls, some regard must also be had for its newer congener, Ampelopsis Veitchii, which is by far the most largely employed, furnishes the most complete coat of leafage, and that, too, of a beautiful glossy hue of green such as is delightful to look upon. Few plants have done so much to make bricks and mortar in crowded towns endurable as has this popular creeper. But a plant of very diverse character has for me great attractions also, and that is the hardy, robust-growing Clematis montana. I have a plant in my small back-yard growing on a fence which separates mine from my neighbour's. The fence is about 6 feet in height, and is of close board. Along the top the strong growths of the Clematis have run each way from end to end. On my side the numerous shoots are cut back hard each winter, then after blooming in the spring the hard wood sends down a dense curtain of green shoots. The fence is now some 3 feet broad at the top with delightful leafage.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

CHRYSANTHEMUMS.—Should any of the buds of the large-flowering kinds be showing colour, they must be placed under cover, as at this stage there is danger of the buds rotting should water settle on them. It may be desirable to retard these early blooms for exhibition purposes. In this case the plants should be placed in a light, airy house having a northern aspect. Should a house of this description not be available, the plants must be carried outdoors behind a north wall on fine days and placed indoors at night. Although it is yet too early to house the whole of the plants, a house must be prepared for their reception, so that there shall be no delay whenever the weather becomes too cold for them outdoors. Provision should be made so that the very late kinds may remain outdoors for several weeks yet. A temporary wooden structure, over which a covering of mats may be conveniently placed during frosty nights, will provide adequate shelter for these plants for some time to come.

Bouvardias.—The plants which were put outdoors early in the summer must now be potted up. Give the plants a thorough soaking with water a day or two before digging them up. It is not necessary to pot them into extra large pots; 6-inch or 7-inch ones will be ample. A suitable compost will be loam, leaf-soil and sand. Water them thoroughly when potted, and keep them in a close house for a few days where they can be syringed three or four times a day. Shade them from the sun's rays till they have become somewhat established in the pots, after which they may be gradually inured to full exposure to light.

Violets.—Preparations must now be made for placing these in cold frames. A pit which has been used for growing Melons or Cucumbers will be suitable for the Violets, especially if there is a little heat left in the materials which have been used for a hot-bed. The compost which we find most suitable for the Violets is one of equal parts of loam and rotted leaves. The leaves, which have rotted naturally, we collect from beneath Oak trees in a wood. About 6 inches of the compost should be placed in the frame. The plants should be put out fairly close together and quite near to the glass. Thoroughly water them when planted, and let the lights remain off till there is danger of frost. The hot, dry summer will have favoured the attacks of red spider; therefore each plant must be carefully examined for this pest. It will be wise to immerse the foliage of the whole of the plants in an insecticide.

Bulbs.—The main batches of Tulips, Narcissi, Hyacinths, &c., may be potted as soon as they are received from the nurseryman; 5-inch or 6-inch pots are convenient sizes for this purpose. A compost of loam, leaf-soil and sharp sand will suit most kinds. The pots may be placed in cold frames and covered with ashes till growth has commenced.

Housing Plants.—Accommodation must now be found indoors for Cyclamen, Primulas and Cinerarias which have been growing in frames, as there is danger of frost and the frames will be required for other subjects.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

STORING ONIONS.—Spring-sown Onions have now finished their growth, and require careful harvesting so that they will keep well through the winter. Large bulbs from those raised in heat early in the year should be eased out of the ground by the help of a digging-fork, so that any roots still fresh may not be torn off at the base of the bulb. Should the weather be dry, they may be left lying on the ground for a few days exposed to the sun and turned daily, afterwards tying them up in suitable sized bunches and hanging them in a dry, airy shed; one with open sides, where a full current of air can be had all through the winter, suits them best. Smaller bulbs from those sown outside are ripening early this season. These are preferred for latest use, and any having their stalks already quite decayed may be placed on shelves or on the floor of a loft where they can be kept cool and well aired.

Early Cabbage.—The ground from which the Onion crop has been taken is eminently suited for the autumn plantation of early Cabbages, and these, if sown in July, as recommended in the notes for that month, will now be ready for transplanting. I do not recommend digging the ground for this crop; simply clear it of weeds and dibble in the young plants on the hard ground. Neither do I advocate planting in showery weather, as this is favourable to the inroads of slugs, which find the tender young leaves an attractive morsel. Some growers advise dipping the roots in a puddle made of lime and soot where clubbing is prevalent, but a much better preventive is found in annually giving the ground a light dressing of gas-lime.

Celery should now have frequent attention in the way of blanching. The soil should be broken up fine, so that it will lie closely together round the plants, care being taken not to place it too high, or further growth will be prematurely checked.

Parsley.—Where frames are to spare, it is a good plan to prick out some plants from the later sowings into them for use through the winter, when the outdoor plants may be covered with snow.

Cauliflowers that are turning in too quickly for consumption should have their heads protected by breaking one or two leaves over them and tying up the outer ones. Some may be lifted with a ball of roots and placed in a cool, dark shed, where they will keep in good condition for some time. Winter vegetables should have the hoe frequently at work among them, both for the purpose of destroying weeds and keeping the surface soil in good condition. Leeks should be encouraged to make rapid growth at this time by frequent applications of liquid manure.

Jerusalem Artichokes, having grown to their full height, may have their stems cut down to half their length, and thus avoid being blown over by the neck, which is likely to happen during high winds.

Potato Crops should be lifted as they come to maturity, and a great deal of after-worry will be saved if precautions are taken at this time to have every small tuber removed from the ground. The haulm should be burned either on the ground or carted to the fire-heap.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

FRUIT TREES IN POTS.

THE growing of fruit trees in pots is very interesting work, and in many instances amateurs are able to cultivate them in this form when they are unable to plant any in borders under glass. Peaches, Nectarines, Cherries, Pears and Plums are the favourite kinds for the purpose, and as the trees do not occupy space in the houses for a long time, the cultivator is enabled to grow various other kinds of plants as well.

As soon as the fruits have been gathered, the trees must be removed and cleansed thoroughly with clean water forcibly syringed either from a hand syringe or engine. Of course, great care must be taken of the trees at this stage, as next year's crop depends to a considerable extent upon the way in which the trees are managed while the leaves and buds are ripening.

Place the pots in an open position where the sunshine will reach them during the greater part of the day; put a tile under each pot, and partly bury the latter with ashes or half-rotted littery manure. This treatment helps to preserve the roots from the scorching effects of the sunshine. It also encourages the formation of many small fibrous roots, and these are always of great value.

Some specimens may require repotting, and, if so, the work must be done forthwith. Pots about 4 inches larger and well crocked should be used. Many crocks are not necessary, but those put in must be properly placed so as to secure thorough drainage. Good fibrous loam, cut and stacked quite three months previously, must be used; a small quantity of rotted manure may be added, and, for the stone fruits, some old mortar rubble. Pot firmly, give water immediately afterwards, and then be careful not to over-water. Maintain the soil in an even state of moisture throughout the winter months.

The following are suitable varieties: Peaches—Royal George, Hale's Early; Nectarines—Humboldt, Lord Napier; Cherries—Early Rivers', May Duke; Pears—Doyenné du Comice, Durondeau, Louise Bonne of Jersey; Plums—Rivers' Early Prolific, Kirke's, Jefferson and Green Gage.

AVON.



DIMORPHOTHECA ECKLONIS IN A SOUTH DEVON GARDEN.

THE GREENHOUSE.

ACALYPHA HISPIDA.

IT is questionable if any among the numerous exhibits at the meeting of the Royal Horticultural Society on August 29 attracted as much general attention as did a magnificent group of large standard examples of this Acalypha. The exhibitor was Colonel Lockwood, Bishops Hall, Romford, who, as well as those responsible for their culture, might well feel proud of such a group. In all twenty-eight plants were exhibited, each having a clean stem of 4 feet to 5 feet in height. As the head was of corresponding size, the plants stood from 6 feet to 8 feet high, or thereabouts. The dominant feature was the grand condition of the long drooping spikes of blossoms and the profusion in which they were borne. Such an exhibit may be truthfully described as absolutely unique, a noteworthy feature being that the plants were said to be less than a year old. The general appearance of a single specimen is well shown in the accompanying illustration, though it conveys but a faint idea of the effect produced by a large group.

Although the genus Acalypha is a very extensive one (for over two hundred species are recognised), prior to the advent of A. hispida the different kinds in cultivation were grown only for their ornamental foliage, the flowers being, generally speaking, quite insignificant. Though it had flowered previously at St. Albans, the first public appearance of A. hispida was, I believe, at the Ghent Quinquennial Exhibition in 1898, when it formed one of the chief attractions in Messrs. Sander's group. A little later it was equally conspicuous at the Temple Show, being each time shown as Acalypha sanderiana. A very strange thing in connection with this Acalypha is that it seems to have been known to botanists for many years before it was introduced into cultivation. For this we are indebted to M. Micholitz, who, when travelling in the Bismarck Archipelago on behalf of Messrs. Sander, sent home plants therefrom.



ACALYPHA HISPIDA GROWN AS A STANDARD.

Unlike some new plants that have attracted great attention when first exhibited, but owing to the difficulties attending their propagation never became popular in gardens, Acalypha hispida proved to be so readily propagated by cuttings that, as soon as it was shown, large quantities were disposed of, and it soon became generally distributed. The best cuttings are formed of the young growing shoots, which may be taken at almost any period of the year, though they strike more readily in spring and early summer. April is regarded as the best month for propagation. The weak shoots produce roots just as readily as the strong ones or those of medium vigour, but they are not so well suited for growing into large specimens. Good examples are sometimes seen trained to a single stem, but it is as a standard that the long pendulous racemes of bright red blossoms (suggestive of the plush-like substance known as chenille) are seen at their best. This Acalypha is a liberal feeder; hence it should be potted in a good fairly open compost. It rejoices in a good fibrous loam to which a little peat and silver sand is added. As the pots get well furnished with roots an occasional stimulant greatly assists the development of the plants.

H. P.

THE FLOWER GARDEN.

SWEET PEA NOTES.

SEPTEMBER SOWING.—Once again the weather has demonstrated the importance and advantage of autumn sowing. It does not appear to matter whether the season proves cold and wet or hot and dry, the autumn-sown seeds yield the finest plants, and they in their turn produce the best flowers. The blooms are not necessarily the largest, but they possess a substance and develop a richness of colour which do not usually come with plants raised in the spring. Exactly what autumn means in the sowing of the seeds depends upon various things, but more particularly on the soil and situation, and the date will vary between this month and the end of November. In cold places and heavy soils September sowing answers well, because the seeds germinate and the plants make excellent roots while the soil still retains a measure of its summer warmth. It is well to sow more thickly than would be deemed necessary in a general way, to give the soil pests a chance to have a feed without the whole prospects of the sowing being ruined.

NOTES ON VARIETIES.—There are many people who do not actually sow the seeds in the autumn, and yet who prefer to purchase their seeds at that season, in which, let it be said, they are wise, for the stocks of the best novelties never seem to be sufficient to meet the demand, with the result that before the New Year has run even a short course, orders are executed with an expression of regret that this variety and that are sold out. Therefore, consider the offers that the leading specialists make in the columns of THE GARDEN, and send on the orders as soon as possible, for the sellers proceed on the principle of first come, first served.

As usual, there will be an abundant crop of fresh names from some sources, and it is inevitable that there will be close resemblances between many of the sorts; but care in making the selection should safeguard the experienced grower from serious waste in cash and labour. It is not yet possible, of course, definitely to say what new varieties will be put on the market, but there are several of which the supply of seed last season was so short that it was impossible for all to have them, and which are well worth a trial. Among these et Bertha Massey be mentioned. As far as I know there is no other variety like it, and the plant s an exceptionally fine grower, throwing magnificent blooms for the exhibition stand and hundreds for cutting for the home. What the colour is I fear hat I cannot say, for the artistic mixture or blend of pale mauve and lilac renders a brief description impossible. This came from Messrs. Bide and Sons, Farnham, as also did Mrs. Stewart Champion, of which the crop failed last season, and distribution was thus prevented. It is a Spencer of the best type, and the colour is cream n the ground, suffused with rose. Those who an still see charm in the smooth forms ought to row both Orange King and Blue Belle, of which he names describe the colours. They are very ree-flowering, and rank with the most useful of arden Sweet Peas, though they do not stand high e exhibition varieties. These also come from Messrs. Bide.

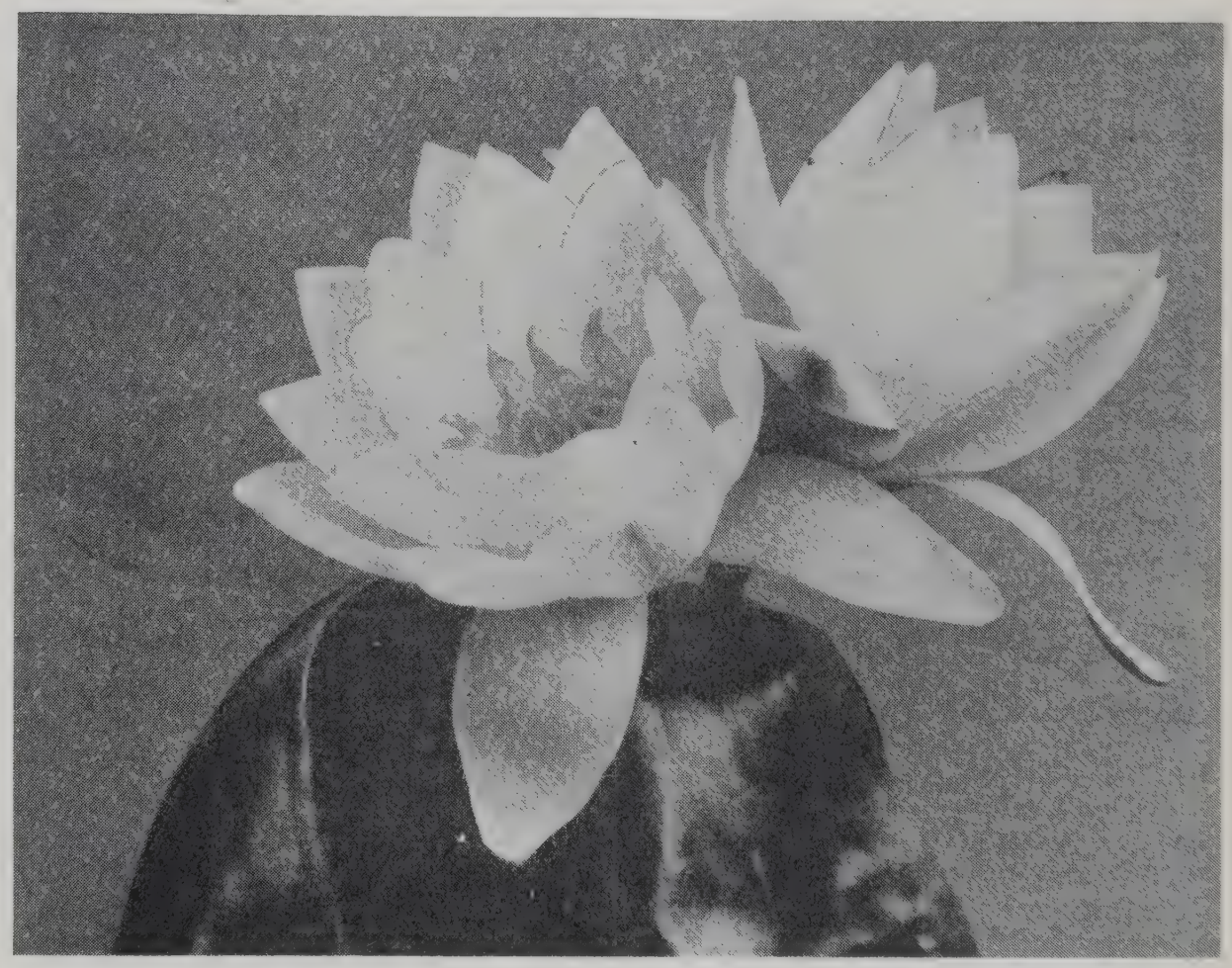
There is little doubt that, as the Queen expressed er approbation of Minnie Furnell, Mr. W. E. Alsen of Denmead, Hampshire, will have contrived somehow or another to secure a ton or two of seed, so that all the Sweet Pea world may have a chance of growing the Royal favourite and, if they are loyal, as, of course, they should be, approving the excellence of Her Majesty's taste. The colour is given by Mr. Alsen as a delicate shade of shrimp pink, and as I am not capable of bettering it, we will let it go at that. There is no question that the flower is an exquisite one, and I can testify to its charm for decoration. Mrs. W. E. Alsen is a pale blue or lavender Spencer of merit that will be largely grown. A. A. Fabius, glowing cerise, is rather a doubtful quantity, because there are clearly two forms and shades of colour, and while one is superb, the other is as nearly worthless as any Sweet Pea could be. The grower who secures the former will be delighted, and he who gets the latter will be sad. I wish my readers good fortune in the matter.

As usual, Messrs. Dobbie and Co.—no longer, be it remembered, of Rothesay, but of Edinburgh—have some real beauties; and as Mr. Ireland seems to have fathomed the mysterious secret of securing heavy crops of seeds, whether the weather is favourable or the reverse, the prospects that all growers will be able to share in the good things are excellent. My space is too limited for reference to be made to them now, but they will not be forgotten a fortnight hence.

A. B. ESSEX.

NEW HYBRID WATER LILIES.

WITHIN the last few years, Water Lilies have been wonderfully improved by selection and hybridisation, until at the present time we have flowers of surpassing beauty and of most perfect shades of colour. For these improvements we are greatly indebted to the skill and enterprise of the late M. B. Latour-Marliac, whose lamented death occurred in the spring of this year. It is a matter worth recording that this eminent French horticulturist worked with unremitting zeal for ten years before he raised a Nymphæa which showed signs of a decided break in colour, and even then he is said to have been unfortunate enough to lose his first and only seedling. Perseverance finally rewarded him in his efforts, and to-day many varieties of his raising are foremost among gems of aquatic plants. One of the last varieties raised by him was Mrs. Richmond—a dappled or flush pink with golden yellow stamens. This variety received an award of merit recently from the Royal Horticultural Society. Another variety to gain a similar award is N. gladstoneana (see illustration). The origin of this lovely variety is not recorded, but there is no doubt about its merits, for it is the finest white Water Lily yet exhibited. As described in the last issue of THE GARDEN, it is of giant form, noble and shapely, and of the purest spotless white. The flower is set off to advantage by a glorious tuft of golden yellow anthers. Both varieties were admirably shown by Mr. James Hudson, gardener to Mr. Leopold de Rothschild, Gunnersbury House, Acton.



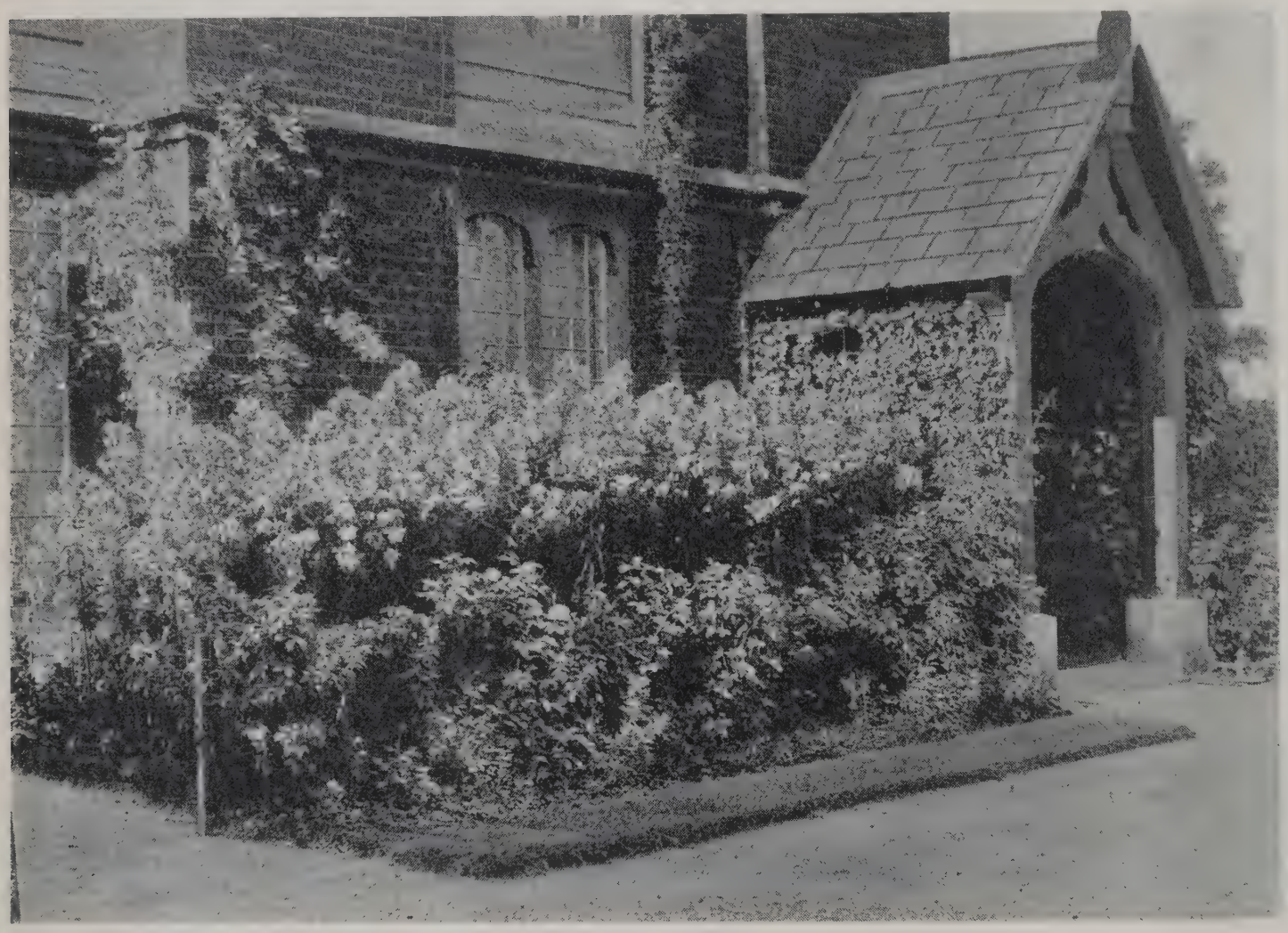
THE NEW WHITE WATER LILY NYMPHÆA GLADSTONEANA. (*Much reduced.*)

DIMORPHOTHECA ECKLONIS.

THIS plant, upon its first introduction, was styled the Transvaal Daisy, a title which confused it with Gerbera Jamesonii, sometimes known by the same name, but which, when an English appellation is given it, should be called the Barberton Daisy. Both plants are natives of South Africa. The Dimorphotheca, though generally treated as a greenhouse subject, is far more effective in the open than under glass. Growing rapidly, effective plants for the outdoor bed may be raised from cuttings in one year if occasionally stopped. Good plants 2 feet in height and as much through can be easily lifted in the autumn, placed in large pots, kept where severe frost will not reach them and

planted out again in the spring. This practice is quite applicable to any district in the British Isles. In favoured sites in the South-West the Dimorphotheca may be left undisturbed in the open through the winter, though if this should prove unusually severe for the locality, the plant will doubtless die. It is certainly a tender plant, far more so than such things as Hakea suaveolens, Calceolaria Burbidgei, Bowkeria gerardiana, Abutilon vitifolium, Buddleia Colvillei and Callistemons. In mild winters it will not be harmed in the open in Devon and Cornwall. The plant illustrated on page 444 was put out in the open border in April a few years ago. In November it was lifted, potted and placed under a balcony, where it remained uninjured through the winter. It was replanted in the open the following April. The next winter it was left undisturbed, but was covered with a mat in times of frost, and came through unharmed. After it attained a height of about 4 feet it became bare at the base and was destroyed; but it had been in the open three winters. The year after its removal, seedlings, self-sown, sprang up around the site it occupied and grew well. A fair-sized bush has a pretty effect when in full bloom, being covered with Marguerite-like flowers, each rather over 3 inches in diameter. When expanded, these blossoms are pure white, their colour forming a pleasing contrast to the violet purple of the central disc. In these purple discs golden anthers appear, which increase the beauty of the flowers. The reverse of the petals is purple blue, and when some flowers are fully expanded and others are in bud, the contrast of colour is very pleasing. In dull weather the blossoms remain closed, but even then a plant covered with countless tapering, purple buds is by no means unattractive. A good bush will bear some hundreds of flowers. The foliage is not unlike that of some of the Candytuft family and is inclined to be fleshy. It is easily raised from seed, and cuttings strike as readily as Willows, so that its propagation is extremely simple. Plants grown on sturdily for a year under glass, hardened off in the following spring and planted out in May will be attractive in the border for a lengthened period, and may either be lifted and repotted in the autumn or thrown away. When grown in the conservatory, the plants should be kept close to the glass, or they will become drawn, and will then compare very unfavourably with specimens grown in the open. In severe winters in Devon and Cornwall the majority of plants in the open are killed.

WYNDHAM FITZHERBERT.



A FINE PHLOX BORDER IN A READER'S GARDEN.

PHLOX PANICULATA ALBA.

I SEND herewith a photograph of a group of Phlox paniculata alba, which have been a mass of bloom in my garden for the past six weeks. The plants are growing in a corner facing north and east, getting no sun after eleven o'clock in the morning, this probably being one of the reasons why they have done so well in such a hot season. The soil here is rather light, so before planting the Phlox I removed several barrow-loads and replaced it with fairly heavy loam, thoroughly mixing this with the remaining soil to a depth of 15 inches, also adding some cow-manure. The plants were all grown from cuttings given to me by a friend in the spring of 1909. Most of the young plants flowered in the following autumn, but I did not put them in their present position till October. In habit it seems to be naturally a tall-growing variety, averaging from 5 feet to 6 feet in height. The large pyramidal panicles often exceed 2 feet in length, and near the base are 15 inches or more in diameter. The flowers open white, changing with age to a mauve white tint; they are fragrant, particularly in the evenin The individual blooms are 1 inch across, the edg of the petals, recurving along the margins, givi the flower a starry appearance. Florists woul I suppose, consider this a defect, their ideal bei apparently a perfectly flat, round bloom; but my mind this enhances rather than detracts fro the beauty and distinct character of this Phlo Phlox paniculata, the pink-purple species, is native of the United States, and is said to have be introduced into this country in 1732. From th species and P. maculata, I believe, have originat the late-flowering section of garden varieties whi florists catalogue under the name of P. decussat

Surrey, CONSTANT READER.

AUTUMN PANSIES.

IT seems very singular, but it is at the same tim true, that although a great many Scotch florists a large trade in Pansies, yet few a able to supply plants in the autum months. The fact is that so man regard the spring as the best seas for selling plants. Herein I think mistake is made, for if they a grown in the following manner bett plants can be obtained. First all, when the plants begin to sprea which is generally in June, thr into the centre of each a good handf of rich and finely-sifted mould; th will induce the plant to form roo near the surface. About the begi ning of September take up t plants, wash the dirt from t roots and divide them. As a rul one can obtain two dozen plan from each, and very often mar more. These should be planted o about 3 inches apart, where th should remain until they are requir for the autumn or spring plantin To become successful in growi Pansies for exhibition, one mu plant at both these seasons; bu at the same time, I am convinc that the autumn is much the bett season of the two, for the plan get a stronger hold of the soil an strike their roots deeper down in it than many people suppose, and b the springtime they have becon established. On the other han spring-planted Pansies seldom b come established before the war weather sets in; and should it become very dr like it has been this year, they are too late making a proper start, and it is doubtful if th will start at all except where they are in a shad place.

G. BARTON.

DAFFODILS FOR ROCK GARDENS

Now that a rockery forms an integral part of many British gardens, it may be useful if I suppl ment Mr. Malby's note on Narcissus triandr albus in the issue of August 19 with a list of son other species and varieties that will do well similar positions. All the Narcissus family seem like to have their roots in something damp, so planting care should be taken to avoid the ver driest and hottest places. The soil of the "pocket should be fairly porous and enriched with a litt bone-meal. A shady spot is advisable for triandr albus and juncifolius. The Corbularias an cyclamineus like damp peaty soil, while th

triandrus varieties like it gritty. By the way, it would be interesting to know whence Mr. Malby got the list of his varieties, viz., N. triandrus cernuus, concolor, luteus and nutans. I cannot find them in any list or book that I possess; nor have I seen any of them except concolor.

Many of the species and some others are free seeders. When this is so, care should be taken to allow the pods to ripen on the plants. They will then sow themselves, and if there is not too much disturbance in their immediate vicinity for the next two or three years, stray plants and informal colonies will begin to appear, and by their informality and their unexpected appearances in odd places they will add naturalness and charm to those parts of the rockery which they have made their own. The following are suitable for the purpose named: Bulbocodium citrinum.—The large sulphur Hoop-Petticoat Daffodil. Cyclamineus. — The Cyclamen-flowered Daffodil. This likes a damp, well-drained position. Juncifolius.—The miniature Rush-leaved Daffodil. Lobularis. — The small Dutch trumpet Daffodil. Macleayi or Diomedes minor.—This is a small bicolor. Minimus.—The smallest trumpet Daffodil, only 3 inches in height; likes a peaty soil. Minor. — A deep yellow trumpet with a twisted perianth. Nanus.—Golden yellow; a lovely, well-formed flower; about 6 inches or 8 inches high. Triandrus albus (Angels' Tears).—White self; perianth reflexed like Cyclamen. This prefers shade and a well-drained, very gritty soil. W. P. Milner. — A pale sulphur yellow trumpet; goes almost white with age.

In addition to the above, which are those usually classed as rockwork varieties, I would suggest four others, which from their slender habit of growth might very well be introduced in places where larger plants are appropriate, viz., the two Jonquils—(1) Jonquilla, the single sweet Jonquil, (2) J. odorus rugulosus, the best form of the Campernelle Jonquil, (3) gracilis, a tall Rush-leaved Daffodil, and (4) tenuior, the slender straw-coloured Daffodil, often called "The Silver Jonquil." These last two kinds are not very well known, but I feel sure they would please many who love old garden "forms" and species if they would give them a trial. JOSEPH JACOB.

SCHAFTA'S CATCHFLY.

AUTUMNAL-FLOWERING alpines are not too plentiful, so that Silene Schafta deserves the consideration of the many who wish to have their rockeries or rock edgings to herbaceous borders brightened from August onwards. The pretty little flowers are of a kind of purple rose, and are borne in great plenty well out from the pretty green leaves. It has proved absolutely hardy for many years, and the writer has had it for a goodly period, during which it has never failed to give satisfaction. S. ARNOTT.

COLOURED PLATE.

PLATE 1434.

SOME NETTED IRIS SEEDLINGS.

ONE of the daintiest and most charming of all bulbous plants is the lovely little Violet-scented Iris (Iris reticulata). Everyone knows it and everyone loves it. Everyone wishes to grow it, but it has its likes and dislikes, and unless it can be accommodated with a nice light soil which is more or less protected from autumn rains and winter damp, it will pine away and die. Probably because it was misunderstood, the earliest importation of the little Netted Iris bulbs from the Caucasus in 1821 failed, and British gardens were without it for some considerable time. Now we know it much better, and can give it what it requires; or, if we cannot, we know at once that our chance of success is of the slenderest. Evidently this is one of the many species which naturally seem to have within themselves an endowed or an inherited tendency to vary from seed, and some beautiful wild forms have been collected and garden seedlings raised.

The famous German gardener, Max Leichtlin, had at one time a goodly number of beautiful forms of reticulata in his rich collection of plants. These, some years ago, passed by purchase into the hands of Mr. F. Herbert Chapman of Rye, and from that day up to the present that gentleman, aided by his good friends the bees, has been raising seedlings. Some of these, with those that he bought from Max Leichtlin, were exhibited at Vincent Square on February 28 of the present year. Very lovely they were. The many-shaded blues, purples and mauves were delightful variants from the old reticulata, Krelagei and Melusine. For those who did not see them, the coloured plate gives an excellent idea of what they were like. I want, before I conclude, to pay a tribute of appreciation to the work of Herbert Chapman. I do not know what made him take to gardening, nor do I know what it was that gave his mind the particular bent it has taken, but I do know that he might very well have been inspired by a remark of that great gardening genius, the late Mr. F. W. Burbidge of Dublin, "Raise seedlings—hybrids if you can—but raise seedlings." He is hard at work doing this among Daffodils, Freesias, Sweet Peas and these pretty little Netted Irises; and it is hard to say what there may not be, even now, "Coming through the Rye." J. J.



A FLOWERING SPRAY OF CLERODENDRON TRICHOTOMUM.

TREES & SHRUBS

CLERODENDRON TRICHOTOMUM.

THE hot, dry summer through which we have recently passed seems to have suited this hardy species of Clerodendron, judging by the freedom with which it has flowered. Although introduced from Japan into this country as long ago as the year 1800, it is by no means a common shrub. It was originally supposed to be confined to Japan, but collectors have since found it in China. A beautiful deciduous flowering shrub with handsome foliage, its greatest value lies in the fact that the flowers are produced in autumn. Commencing to flower towards the end of July, a succession of blossoms are produced throughout the month of August and extend into September. The red inflated calyx is quite as handsome as the white flower in the centre. The latter is followed by a black fruit, and surrounded by the coloured calyx, which is persistent, continues the ornamental character of the plant till late in the season.

When planting Clerodendron trichotomum, select a sunny position and a well-drained soil not too rich, or it will most probably produce large leaves and strong shoots instead of flowering freely. The roots form the readiest means of propagation, although seeds and cuttings may also be employed. Pieces of the root 2 inches in length and about the thickness of a pencil push up young growths in spring if taken off and dibbed in sandy soil in a frame during the winter. It is surprising what a number of young plants generally grow in a position from which a large plant has been moved through

leaving pieces of the roots in the ground. The common name of this Clerodendron in Japan is "Kusagi." It received a first-class certificate when exhibited by Messrs. Veitch of Chelsea at a meeting of the Royal Horticultural Society in September, 1903. A. O.

TWO RARE AND INTERESTING SHRUBS.

IT is now possible to obtain two species of Schizophragma for outdoor culture in Britain though both are extremely rare plants. One species, S. hydrangeoides, is not, however, a new introduction, for it has been known for many years and has been grown in a few gardens. A great deal of confusion has existed between it and Hydrangea petiolaris, and many have often thought that they possessed the Schizophragma, when their plant was really the Hydrangea which had been sent out under a wrong name. The two genera are closely allied, and the confusion, no doubt, arose through the similarity in habit between the two plants above mentioned, for both form long, scandent branches, which cling to their support by means of aerial roots in the same way as the Ivy. The leaves are also somewhat alike in shape, while in each case the flower-head bears both fertile and sterile flowers. It is in the sterile flowers that the greatest difference between the two genera is noticeable, for in the case of Hydrangea four showy bracts make up each bloom, while in Schizophragma one bract only is present. This, however, is a large one and rather showy. Both species are well adapted for planting against a wall, the trunk of a tree, or the overturned butt of a tree.

S. hydrangeoides is a native of China and Japan, and attention was directed to it as long ago as 1835. At later dates it was collected by Wildford and Oldham in Japan, while more recently it has been sent home from China by collectors. The ovate or cordate leaves grow to 7 inches long and 4 inches wide, with coarsely-toothed margins. The flowers are borne in terminal heads, an indefinite number of fertile flowers being produced with a small number of sterile ones, which, as previously stated, consist of one bract only. The latter are white in colour, 1 inch to 1½ inches long and 1 inch wide.

S. integrifolia is found in Western China, and was brought to notice by Dr. A. Henry, who collected it in Szechuan. It remained, however, for Mr. E. H. Wilson to introduce it to this country, for he sent seeds home when collecting for Messrs. Veitch. Though of similar habit to the other species, it differs by having large ovate or ovate lanceolate leaves, which may be as much as 9 inches long and 4 inches wide. The flower-heads are large and the sterile flowers more showy than in the other species, for they are 3 inches long and 1½ inches wide. Both species are well worth obtaining for gardens where collections of rare shrubs are encouraged. D.

THE TOWN GARDEN.

BULBS IN FIBRE.—If I may say at once that bulb-growing in fibre preparations is a convenience as well as a delusion and a snare, it will suggest to the reader that things are not always what they seem. One may, indeed, visit an exhibition where bulbs in bowls of fibre may prove a very striking feature, or one may see pictures of the pots or vases of these things very suggestive of a full measure of success. Such things, indeed, but represent the finished article—the completed garment, as it were—and afford no proof of what the thing was in the making, giving no idea of the slips or mistakes by the way, or of those entire failures or misfits that are so discreetly kept out of sight. Bulb-growing in fibre is virtually



NARCISSUS PAPER-WHITE GROWN IN FIBRE WITHOUT DRAINAGE.

A NEW HOBBY, one fraught with great possibilities, carrying with it, as the excellent example of Paper-White Narcissus in the picture herewith so abundantly illustrates, so full a measure of success that large numbers of my readers would be ready at a moment's notice to take up this fascinating phase of indoor gardening, with little or no thought as to the result. In this, however, as in all else, the successes are very likely to be freely interspersed with failures—failures that are not infrequently directly due to a bad beginning or to a very superficial knowledge as to the requirements of the plants. Chief among the fundamental errors of the amateur in such matters is the purchase of bulbs, bowls and fibre, and the placing of them in the sitting-room without more ado to await results. The fact that bulbs of all classes, even in the more natural soil conditions, require a season of preparation does not appear to enter into the bargain; hence failures are really courted from the outset.

A GREAT ESSENTIAL in the case is, of course, an early start, though an even greater one is that the bulbs be started in the most natural manner possible; that is to say, the weeks of probation—the weeks prior to the forcing or the alien conditions we have in mind—should be spent in the cool of a frame or cellar, and, preferably, always in darkness or a rather heavy shade. Such conditions are best assured by plunging the bowls, bulbs and all, in weathered coal-ashes or Cocoanut fibre; or they may be secured by a modified covering of these materials, the whole being covered by large inverted flower-pots. But by whatever means they are brought about, the things to aim at during the early weeks are darkness and a uniformly cool and moist, but not wet, condition of the fibre. In such circumstances as these a good free rooting of the subject will be practically assured; in other words, the foundation may be said to have been well and truly laid. Not less than six weeks, and better if two months, should be given of this preparatory treatment, because the nearer we approach to the natural flowering period of any plant so treated, the greater the possibilities of success.

UNDUE HASTE.—The planting of the bulbs and placing the receptacles in a room both warm and dry not infrequently has its reward in poor and meagre spikes, blindness of flowers, or a complete refusal to respond at all to the conditions around. The aridity of the ordinary dwelling-room is opposed to good growth, since syringing, or overhead watering, so life-giving and refreshing when the subjects are in a greenhouse or frame, have to be dispensed with. Hence there is the greater need for the production of a maximum of roots before the final stage in the alien conditions to be encountered is reached. All interested in this particular phase of indoor gardening should give the plants the benefit of a shower-bath now and again, which, in conjunction with liberal supplies of root moisture when the plants are in growth, will add materially to the possibilities of complete success. S. N. N.

GARDENING FOR BEGINNERS.

PLANTING CHRISTMAS ROSES.

ALTHOUGH there is a diversity of opinion regarding some points of culture, most authorities are confirmed in the view that the Christmas Rose delights in a position that is semi-shaded. The plants will succeed very well in rather sunny quarters, such as a south border, but they may suffer from drought during the summer, unless they are mulched and carefully watered. The only advantage to be derived from planting in warm quarters is that the plants will evolve their blossoms earlier; but this is a questionable advantage. The Christmas Rose will succeed in either an eastern or a western aspect, but preference should be given to the former position. If I had the choice of a position for these plants, I would plant the Hellebores in a sheltered position that was cool and moist, and where partial shade could be afforded the plants. A favoured situation is among Ferns and other low-growing plants or on the margins of shrubberies away from the roots of shrubs, which have a tendency to exhaust the soil. Special beds are sometimes made up under a wall or hedge with a northern aspect, and the plants are put out in such a way that they can be easily protected by cold frames and handlights.



I.—THE CHRISTMAS ROSE: A SUITABLE SUBJECT FOR PLANTING NOW.

The Christmas Rose thrives much better when the quarters are deeply dug, and the soil that suits this subject very well comprises a deep, rich loam, with which should be incorporated quite freely well-rotted manure and leaf-mould. All growers do not agree that the above-mentioned composition of the soil is such as this Hellebore delights in. Some of the finest results have been obtained from making up a bed of special soil. First of all, the drainage of the bed should receive attention, as cold, uncongenial soil for the root-run is sure to cause many of the thick, fleshy roots to decay. If the soil of the selected quarters is of this character, it should be removed to the depth of, say, 18 inches, and the subsoil turned over to the depth of a further 6 inches. A layer of potsherds, stones, broken bricks, clinkers, &c., should be spread over the subsoil to the depth of about 3 inches, this material in turn being covered with leaves or anything of a similar nature. The soil to be filled in should be made up of good fibrous loam, well-rotted manure, coarse sand or clean road grit, and a quantity of fibrous peat, all well mixed together. Fill in this compost to several inches above the ordinary garden level and allow this to settle down before planting. When planting in borders that are margins to shrubberies, take care to dig deeply, and in poor, light soils work a heavy dressing of cow-manure in the bottom spit.

When to plant the Christmas Rose is a much-vexed question. Some growers are strongly in favour of planting in February or March, directly after flowering has ceased. Other most successful growers—and these are in the majority—are strong advocates of planting in late August and September, after the plants have finished their growth. The Hellebores are impatient of removal; the roots resent being disturbed. For this reason, therefore, these plants should never be lifted unless they are old and impoverished or wanted for dividing into numerous pieces. It is not at all an uncommon experience to be able to obtain small plants from the specialists in pots. This is a great advantage, as it enables the would-be grower to plant his Christmas Roses with the sure prospect of the ultimate issue being quite satisfactory. In Fig. 1 a capital specimen for planting out at the present time is shown. Such a plant many growers would divide into three pieces; but as quick results are desired, it is to be planted whole. During the summer—in fact, since it flowered last winter—the plant in its pot has been plunged in a bed of ashes; this has maintained the roots and soil in a cool, moist condition. The plant has been turned out of its pot, in order to show the thick, fleshy character of the roots. When plants are lifted and divided, each piece should contain several crowns. Small plants that have three or four leaves should be planted 1 foot asunder, and larger plants should be spaced out correspondingly. Pieces about 6 inches in diameter are a very good size for planting. Fig. 2 depicts the same plant as represented in Fig. 1, planted in position. The reader will note the crowns visible in this plant, which, of course, denote promise in the flowering period.

During the inclement weather, when the Christmas Rose comes into blossom, it is wise to cover the plants with bell-glasses, hand-lights or frames and those who do not possess these invaluable adjuncts of the garden should cover the surface soil round about the plants with moss, lawn mowings, &c., to prevent the rain splashing soil on the blossoms and spoiling their purity. If these plants are lifted and divided once in the course of five or six years, this will answer their requirements very well. D. B. CRANE.



2.—PLANTED IN POSITION.

SEED POTATOES.

THE skin on the tubers of early varieties has hardened more quickly this year than is usually the case, and consequently they will not get bruised in the handling as much. Nevertheless, the cultivator will be acting wisely if he takes the precaution to place the tubers in thin layers on mats under tilted glass lights for a week or so prior to storing them for the winter. The Potatoes must be carefully turned over at least once before they are taken from the frame, so as to get the skin hard and set on all parts alike. If the lights are placed on flower-pots or bricks, air will be admitted all round, and this is essential to successful treatment. Of course, it is not absolutely necessary to put the tubers in a frame; they will do just as well in an open shed if left there for about a fortnight and duly protected from the rain.

The skin will turn green, and in this condition the tubers will remain throughout the winter, even if kept from the light; but it is better for them if they can be stored in a light shed where plenty of air can be admitted in fine weather and frost excluded. A cool temperature and dry atmosphere are favourable to the growth of one or two very strong sprouts, not long ones, but short and thick. Such sprouts adhere firmly to the tubers, are not dislodged at planting-time, and, consequently, the Potatoes are not unduly weakened, as is the case when the tubers are stored in large heaps and covered with straw in a darkened shed or in a clamp outside. When badly stored, the sprouts grow very long on the tubers, and, as they must be rubbed off, represent so much loss of strength. SHAMROCK.

THE KITCHEN GARDEN.

DWARF BEANS IN AUTUMN.

By many it may be considered somewhat late for sowing Dwarf French Beans, but a fair return may be had by sowing in good land early in September or even later in the month. Seed should be sown on borders where protection can be given later on. The growth of this plant at this season is rapid, especially in such a one as this with the soil in a warm, genial condition. By well soaking the seed in the rows after sowing, germination takes place in a few days. A generous root-run and well-prepared soil should be given. In heavy land give sufficient aids in the shape of burnt refuse, wood-ashes or spent manure to lighten it and assist rapid growth. It is surprising what a quick return late-sown plants yield; they appear to revel in the cool, moist nights of early autumn, and providing the plants set their blossom, there should be no difficulty in getting a crop during the next few weeks. It is almost useless to sow in poor land that is not well cultivated. At this season the plants well repay for a little extra outlay in the shape of food and attention. The variety I much prefer is what one would term a small, compact grower. At this late period of the year those of the Canadian Wonder type take too long to mature. Such kinds as are dwarf and form pods quickly are the best. For many years for this purpose I grew Mohawk or Six Weeks, an old, excellent variety, but now superseded by superior sorts, such as Progress, Early Gem, Reliance and forcing varieties. These give a quick return in a generous soil.

In the North a different mode of culture may be necessary. I found it advisable there to sow on a warm border and, later on, to cover with movable frames, or, what was better, to sow in cold frames, and as soon as the plants had grown well above the soil to ventilate freely, if desired, for late supplies. I have also sown in boxes or pots, and later on, at the approach of frost, transferred the seedlings to cold frames, when I have obtained a late supply. So much depends upon the grower's means at command to shelter the crop, and what is most important is to secure an early set. This done, there is no great difficulty in finishing the crop. Here will be seen the importance of an early variety, good soil and the quick germination of the plant. Sown on a border without any glass at command for shelter, by sowing early the plants will be sufficiently advanced to get the pods large before severe weather sets in. Should early frosts appear, it is an easy matter to shelter with mats or covers. In the North, near the coast, in a favourable autumn I have had this crop in the open ground well into November, and, providing glass protection can be given in any form or cold-frame culture from the start, the crop well repays for the outlay, and is much valued at that season of the year when choice vegetables are scarce.

G. WYTHES.

TOMATOES IN THE OPEN AIR.

THIS season has been very favourable to the growth of the Tomato in the open; in fact, I do not ever remember seeing plants fruiting and ripening their fruits so freely as is the case this year. Evidently the Tomato is a heat-loving plant and delights in a somewhat warm, dry, airy temperature to develop the fruits and bring them to a state of perfection. Many years ago I grew, for outdoor fruiting, the old Orangefield and Dwarf Red, both corrugated fruits, but, nevertheless, exceptionally free croppers. Since then a goodly number of fresh varieties have been introduced, many of which, with suitable cultivation, crop freely in the majority of seasons, and the fruits are prettily shaped. Among the best with me this year is Lye's Early Gem, a moderate-sized fruit of nice shape, colour and flavour, and extremely free. Most of the clusters produce as many as eight or ten Tomatoes in each, and all of uniform size and finish. Sutton's Golden Nugget has been, and is, cropping exceptionally freely. The fruits are rather small, but rich in colour, and just the size for dessert. This summer there is no scarcity of Tomatoes in gardens where the roots have been well supplied with moisture, the growths neatly trained and the side shoots removed. All our plants have now been stopped and the fruits, as fast as they change colour, removed, so as to give the plants every encouragement possible to finish off the late-set trusses by the end of the season.

Wrotham Park, Barnet. H. MARKHAM.

THE ROSE GARDEN.

THE BEST ROSES OF THE YEAR IN A SCOTTISH GARDEN.

IN this late upland district we have but one natural advantage in the culture of the Rose—a stiff, clayey loam soil. This has been the driest season for thirty-five years, but, all the same, we have had a wonderful crop of Roses, although the almost tropical heat rather took the colour out of many of them. The blooms have also lasted a very short time, as a rule, and it is only the exceptional abundance of the flower-buds that has kept the beds gay for such a long period. A few notes on some of the outstanding varieties may be of use to Northern readers who think of planting this autumn. One of our greatest successes this year is a large circular bed planted as late as March 9. The bed is quartered and one variety planted in each of the quarters. The plants have flourished exceedingly and have given a wonderful crop of fine flowers. The varieties used are Liberty, Lyon Rose, General Macarthur and Mme. Ravary. The Lyon is the only disappointment, for although it has given plenty of good flowers, its habit of growth is entirely against its use as a bedding Rose. We intend to take it up this autumn and replace with M. Paul Ledé. Why is it that this last-named Rose is so much neglected? I have never seen it in any garden but our own, and yet it is one of the very finest of the Hybrid Teas. It is of good upright habit, has fine foliage which is not very susceptible to mildew, and the flowers are large, quite full, and of an exquisite cinnamon pink colour in the centre, which shades off to cream at the outside of the flowers. Altogether it is a grand Rose.

Much has been written about General Macarthur, many growers condemning it entirely. Here this season it has been our best dark Rose for garden decoration. As it is exquisitely scented, it is also admirable for cutting purposes. The foliage, so far, is quite free from mildew Liberty has both grown and flowered better than usual, and is a good bedding Rose. Mme. Ravary is a most successful bedding yellow Rose; its one fault is that it loses colour in hot weather. Le Progrès is another fine yellow Rose here, and less liable to lose colour than most of the others of this shade. Mme. Melanie Soupert is a superb Rose in the bud and until almost full blown. Had this variety been just a little more full, it would be unbeatable, as the substance of the huge petals is all one could desire. Prince de Bulgarie, as usual, has been very fine and, being an upright grower, shows its delicately-tinted flowers to perfection. Mrs. Aaron Ward is one of the most vigorous of the yellow Roses; but although the blooms are finely formed and of beautiful colour in the bud, they are comparatively small in size, and therefore not very showy. Lady Ashtown, our finest pink Rose, has given a grand display of large, finely-formed flowers. This season it has held itself much more erect, and so set off its fine blooms to great advantage. What a pity it is that this beautiful Rose is devoid of perfume. Caroline Testout has been fine, but not quite up to former years. Marquise Litta has given some grand blooms and is a fine Rose, although here it is a rather indifferent grower. Many people dislike the colour of this variety.

Mme. Abel Chatenay has this year, for the first time, done well in this garden, and so has Kaiserin Augusta Victoria. On the other hand, Mrs. David McKee is scarcely up to the standard. Viscountess Folkestone, beautiful but ephemeral, has bloomed with great freedom. Can none of our raisers of new Roses give us a full Rose of the exquisite shade of this old favourite? Marquise de Sinety is much finer this year than usual, the half-opened flowers giving us a shade very similar to a properly-coloured W. A. Richardson. This Rose has grand foliage and is seemingly mildew-proof. Killarney was exquisite, but mildew has rather spoiled the foliage lately. Other perfectly satisfactory Hybrid Teas this season are J. B. Clark, Dean Hole, Clara Watson, Pharisaer and Rosomane Gravereaux. Of Hybrid Perpetuals, Captain Hayward, Ulrich Brunner, Mrs. John Laing, Salamander, Mrs. R. G. Sharman Crawford, Suzanne Marie Rodocanachi, Hugh Dickson, Frau Karl Druschki, Ben Cant, Jeannie Dickson, Mavourneen, Alfred Colomb, Bob Davison and Senateur Vaisse were decidedly the best. Taken on the whole, the dark Roses have been finer than usual, the dry weather allowing them to unfold without the outer petals becoming marked, as too often happens here. Of climbers the best are Dorothy Perkins, White Dorothy, Leuchtstern, Una, Ards Rover, Mme. Isaac Pereire, Climbing Caroline Testout and Grüss an Teplitz. Green fly has been conspicuous by its absence, but mildew threatens to be very troublesome.

C. BLAIR.

Preston House Gardens, Linlithgow.

HOW TO GATHER AND SOW ROSE SEEDS.

THERE promises to be a record crop of Rose seed outdoors this season. I have never seen such pods as there are on some plants, and every amateur who is interested in Rose-raising should take every care to preserve the best pods of special sorts. Although we owe so much to the hybridiser for our modern varieties, no one who knows can overlook the fact that Roses were introduced in the years prior to Mr. Bennett's introduction of hybridising which were raised from seed naturally fertilised; and who can say there were not among them varieties of sterling quality? Many of our best-known Roses of the sixties and seventies are without a pedigree, and it must be admitted that they are none the worse for it.

Now, what I should like to do is to stimulate amateurs into trying their luck with Rose-raising,

IRISES

1 MAJUS

3 MELUSINE

5 GWEENA

and they have this year a fine opportunity to do so. One does not require a large number of pods, for a single pod will often contain as many as thirty or forty seeds. All who possess wall Roses should look out for good, promising pods, and watch them and assist them to ripen in every way by removing foliage that prevents the sun reaching them, or by other means. It must not be forgotten that birds and mice are very fond of the seeds. It is, therefore, a good plan to encase the pods in a transparent paper bag or a gauze bag, where they are secure from these depredators and the pods are enabled to hang on the trees and ripen, which they should do quite early this year. I had ripe pods as early as August 20 on a bush of Rosa rubifolia; and fine pods on such Roses as Earl of Warwick, Joseph Hill, Laurent Carle and Mme. Melanie Soupert were then almost changing colour, although they were in the open.

Do not gather the pods until quite ripe, or they will be useless. They may even hang until Christmas, as a little frost will not harm them. When gathered, take them with a stalk and stick them in pots of damp sand, burying the pod about halfway in the sand, and here they may remain for a week or two; but it is best to sow as early as possible after gathering. Prepare some nice compost of equal quantities of sifted loam, leaf-soil, old Cocoanut fibre and silver sand. Boxes may be used, but I prefer pots 3 inches in diameter. Break up some crocks into very small pieces and fill about one-fourth the depth of the pot with crocks and the rest with the prepared compost, pressing this latter firmly into the pots. Now take a 6-inch pot, place crocks in, and stand a 3-inch pot on the crocks so that both rims are level, filling up the intervening space with fine peat or well-rotted Cocoanut fibre, the object being to keep the inner pot from drying too rapidly It is essential that Rose seed, when sown, should never become dry—indeed, it must not even before sowing; hence the necessity of placing the pods in damp sand. If the inner pots are kept from drying too fast, less water is required, and thus the seed is helped to germinate under the best conditions.

The seeds are put about half an inch deep, and only about three seeds in a pot. When sown, cover the surface with silver sand, bringing it up level with the rim of the pot. When water is needed, apply with a very fine-rosed can. Place the pots in an ordinary greenhouse having a temperature of about 50° by night, and, if possible, upon a shelf near the glass.

If sown in December or early January, some of the seeds should be producing the little plantlets by March and April. Pot them on as soon as large enough to handle, taking care not to break away the soil from the roots, and for this reason I prefer to sow one seed in a pot, although this would be a big job; but, of course, one need not use such large pots—those known as "thimbles" would suffice, and several could be placed together in the centre of a large pot and encased in damp material. Thus our object of preventing too rapid evaporation would be gained, as in the case of the 3-inch pots. If the seedlings can be grown on the first year in pots, there is a greater chance for them than if we plant outdoors the first year. The amateur must not be disappointed if he only obtains one or two Roses of quality from hundreds of seedlings; but this I can promise him—he will obtain some charming single and semi-double sorts that at least will be a pleasure for him to grow in his own garden. P.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

Selection of Sweet Peas (*W. T.*). — Florence Nightingale and Masterpiece are distinct. Premier in good form is quite large enough; but whether you require it in view of others in your list is a matter of opinion. Of those named we should omit Mrs. Eyre, Mrs. Warren, Millie Maslin and Marjory Linzee.

Sweet Peas with double standards (*C. C.*).—Yes; we have seen many flowers of the variety Marjory Linzee with double standards. This characteristic appears to be becoming more and more common every year, and while it adds to the size of the blooms, it does not improve their lightness and elegance.

Azaleas in beds (*A. W. J.*). — You can do no good by cutting your Azaleas back now, for even if fresh growth were made it would not have time to mature before autumn. We should advise you to leave your plants alone at present; then in winter or early spring cut them back to where they were alive. Give the plants a thorough watering at once; then place a dressing of decayed leaves 3 inches or 4 inches in depth all over the ground. If you dress the ground with leaves next spring, this will have the advantage of keeping it moist for the summer, and will encourage surface roots from the Azaleas.

ROSE GARDEN.

Roses for an amateur (*W. H.*).—All the Roses you name are very good and well worth growing. J. B. Clark and Mrs. Stewart Clark should be treated as pillar Roses and have very moderate pruning. Lyon Rose is splendid, and quite unique in colour. Three good crimson Roses for exhibition would be Charles Lefebvre, Duke of Wellington and Comte de Raimbaud. As you require them to bloom late, you should plant a few seedlings or cutting Briars, and bud, say, half-a-dozen of each sort every year.

Rose notes (*Bottom Rung*). — We thank you for your appreciative remarks regarding "Rose Growing Made Easy." *Re* layering Roses, there is a difference of opinion among experts as to the time the layers should be severed from the plant, but we ourselves have found that the plants are much stronger if retained as layers for eighteen months. Good Roses may be grown on sandy soil if you provide them with mulchings of good fertilisers, such as bone-meal and well-decayed cow-manure, broken up into very small particles. What are known as own-root Roses would succeed best in such a soil as yours. Try to obtain pot-grown plants in September. If planted then they make fine plants the next season.

Enriching light soil (*C. M. H.*).—Some good cow-manure would be much the best fertiliser to use when digging out the new beds this autumn, and you should add this liberally and place it at least 18 inches deep, mixing it with the lower soil. Then, if you add some quarter-inch bones with the upper soil, you will have very good material for your Roses. The following May and June you could give the plants some liquid manure made from the Hop Manure when they have become established a year; but the first season we should advise very weak liquid manure being given, such as you could make with cow-manure and soot. This is one of the best liquid manures you can give to Roses. The fowl-manure is a very excellent fertiliser for vegetables, and when allowed to dry in the air, its value is about double that of fresh manure. Keep it in old sacks or barrels in a dry place until wanted for use. A dressing of about 1lb. to 2lb. per square yard applied in the spring will be a safe quantity to use.

MISCELLANEOUS.

Plum tree not flowering (*M. H.*). — We should advise you to give a dressing of bone-meal now at the rate of 2oz. to the square yard as far as the branches extend or a little more. The Apple is Gladstone.

Leaf-spot on Strawberries (*C. L.*).—The leaf-spot of the Strawberry is caused by a fungus which spreads rapidly, and causes considerable damage if neglected. The best method of dealing with it is to cut off the whole of the foliage about the end of August with a scythe, leaving it on the bed to dry, and then when dry to set it on fire, assisting the process by means of a little straw if necessary. The plants will throw up fresh foliage, which will be, and will remain, much more clear of the disease than if the destruction of the old leaves in this way is neglected.

Names of plants.—*C. B. Bragg.*—Probably the Box Thorn, Lycium chinense. This will grow anywhere, and can be raised from seeds or cuttings.——*R. A. B.*—Rhus Cotinus (Smoke Plant) and Phillyræa angustifolia. ——*Hugh Marshall.*—Liriope graminifolia synonymous Ophiopogon spicatus.

Names of fruit.—*A. Burchell.*—The Plum is Black Diamond.——*F. K. W., Ipswich.*—Apples: 1, Hawthornden, October to December; 2, Alfriston, October to March. Pear: 3, Beurré Clairgeau, October to November.——*A. D., Bournemouth.*—Apple The Queen.——*W. E. Lane.*—1 and 4, Mank's Codlin; 2 and 7, Lord Suffield; 3, Lamb Abbey Pearmain; 5, Dutch Mignonne; 6, Newton Wonder; 8 and 12, Ribston Pippin; 9, Lane's Prince Albert; 10, arrived rotten; 11, Duchesse d'Angoulême.——*A. F., Putney.*—1, Rotten when received; 2, Vicar of Winkfield; 3, Beurré Clairgeau; 4, Catillac; 5, Beurré Diel; 6, Louise Bonne of Jersey; 7, Easter Beurré.

SOCIETIES.

CARLISLE AND CUMBERLAND HORTICULTURAL ASSOCIATION.

THE fourth annual show of the above association was held recently in The Markets, Carlisle. The success of the association is becoming more marked every year, and this year, with a record entry in the competing sections, the event ranked as the most successful show organised by the association. The outstanding features were the displays of fruit, Sweet Peas, early-flowering Chrysanthemums and pot plants. The vegetable classes were also an attractive feature, and ten to seventeen entries were the average in classes for Onions, Beetroots, Vegetable Marrows, Potatoes and Tomatoes. In the classes for vegetables open to allotment-holders there was the gratifying entry of ninety-nine, which included five displays of six distinct kinds, and indicated the enthusiasm and skill of the allotment-holders in Carlisle. In the fruit classes some remarkably fine exhibits were staged. Apples have seldom been seen in better condition, and a new feature introduced this year was a class for Apples graded and packed ready for market. Numerous exhibits were shown in this class, and the premier honours were secured by that well-known Apple expert, Mr. John Millican, Scotby, who won with a most attractive box of Bramley's Seedling. Other prominent prize-winners in the fruit classes were Mr. Harwood, gardener, Netherby, and Mr. Scott, who again carried off the silver cup for outdoor-grown fruit. The show of Gooseberries was smaller than usual, but the dry season was detrimental to the keeping of this fruit, and this accounted for the few dishes staged. Currants, however, which were abundantly shown, somewhat counterbalanced the deficiency in the Gooseberry section. The floral exhibits again attained a very high standard of excellence. Sweet Peas were unsurpassed, and the six vases shown by Mr. Thackeray, Stanwix, in the amateur section, and which were awarded first prize and silver medal, were considered the finest specimens in the show. The blooms were magnificent and the stems long and well proportioned. Another exhibitor in the amateur section who gained a high distinction was Mr. Bryce, who was awarded the principal ticket and silver cup for the best twelve vases of Sweet Peas. Cut flowers were notable for their quantity and freshness, and the classes for hardy herbaceous exhibits produced strong competition. Pot plants were undoubtedly the finest display ever seen at the association's exhibition and, both as regarded numbers and quality, were far in advance of last year, Celosias, Dracænas and Begonias being outstanding features.

NON-COMPETITIVE EXHIBITS.

The awards for non-competitive exhibits were given as follows—Large gold medals: Messrs. Little and Ballantyne, Carlisle, and Messrs. George Fairbairn and Sons, English Street, Carlisle. Gold medals: Messrs. Webb, Stourbridge; Messrs. Mansell and Hatcher, Leeds; Mr. John Millican, Scotby; Messrs. E. Fairbairn and Sons, Edentown; the Cumberland County Council; and Sir Benjamin Scott. Silver-gilt medals: Messrs. Clarke Brothers, Carlisle, and the Chadwick Memorial School. Silver medals: Messrs. Dobbie and Co., Edinburgh; Mr. F. J. Bell, Whitley Bay; Messrs. A. McLauchlin and Co., Stranraer, and Messrs. J. H. Reed and Son, Carlisle.

NATIONAL DAHLIA SOCIETY.

ON Thursday and Friday of last week the annual exhibition of Dahlias was held at the Crystal Palace by the National Dahlia Society, with which, by the way, is incorporated the London Dahlia Union. The show was held in the Centre Transept of the Palace, and formed a most picturesque sight. Dahlias in all sections—singles, Pompons, Cactus, show, Collarette and Pæony-flowered—were well represented, in spite of the long season of drought, which has left its mark among Dahlias as well as other outdoor flowers. The exhibition was held on two very hot days, and the attendance, particularly on the first day, was quite exceptional Competition in the nurserymen's classes was poor. This may be due to the fact that only honorary awards were made in these classes this year for the first time. The large non-competitive groups, on the other hand, were remarkably good.

NURSERYMEN'S CLASSES.

Forty-eight blooms, distinct, show Dahlias only: Mr. John Walker was the only exhibitor, and was awarded first prize for some really fine blooms. Among the best flowers were Claret Cup, Purple Prince and William Rawlings (deep crimson). Mr. Walker was likewise the only exhibitor and winner of the first prize in the class for eighteen blooms of distinct fancy Dahlias.

Cactus Dahlias, eighteen varieties, in bunches of six blooms each (a silver cup was awarded to the winner in this class): Messrs. Stredwick and Son, Silverhill Park, St. Leonards-on-Sea, were first with an admirable lot of blooms, beautifully set out. Particularly fine were Red Admiral, Miss Hills and H. H. Thomas. Second, Messrs. J. Cheal and Sons, Crawley, with a capital display.

Messrs. J. Cheal and Sons were successful exhibitors, and, among other prizes, secured first for twenty-four singles, twelve Pompon Cactus Dahlias and six fancy singles.

Twenty-four blooms of Cactus Dahlias, distinct: Messrs. C. Carrington and Son, Vicarage Avenue, Derby, were first with a medium exhibit; second, Mr. M. V. Seale, Vine Nurseries, Sevenoaks.

AMATEUR CLASSES.

Twenty-four blooms of show or fancy Dahlias: Very neat and nicely-grown blooms by Mr. C. Densley, Nag's Head Hill, St. George's, Bristol, secured the premier award

and silver cup. His best blooms were Tom Jones, Goldsmith and T. S. Ware. Second, Mr. S. H. Cooper, The Hamlet, Chippenham.

Twelve blooms, distinct, show Dahlias only: Mr. G. Densley was again successful, closely followed by Mr. A. P. Ironsides, West End Cottage, Chippenham, and Mr. S. H. Cooper, also of Chippenham.

Twelve blooms, fancy Dahlias: Mr. S. H. Cooper was the winner of the first prize and only exhibitor in this class.

Garden Cactus Dahlias, six varieties, six flowering stems in each vase, arranged with suitable hardy foliage: First, Rev. Arthur Bridge, Worth Rectory, Crawley, Sussex. A silver cup was awarded to this capital display.

Cactus Dahlias, twenty-four blooms, distinct: First, Mr. H. Peerman, Glencross, Nantwich, with fresh-looking and well-finished blooms; second, Mr. James Bryant, 5, St. Martin's Terrace, Salisbury.

Mr. Peerman was again first for twelve Cactus Dahlias. His blooms of Thomas Parkin and Harold Peerman were exquisite. Second, Mr. F. Grinsted, Beaufort Park, Battle; third, Mr. G. Davidson, Thornton Heath. This was one of the best-contested classes in the exhibition.

Mr. Grinsted, Battle, secured a silver cup and first prize for nine varieties of Cactus Dahlias, closely followed by Mr. F. W. Fellowes, The Lane House, King's Walden, Hitchin.

Twelve blooms, show or fancy Dahlias: Mr. G. Densley, Bristol, again proved successful. Among his best blooms were Goldsmith, Dr. Keynes and Warrior. Second, Mr. E. T. Matthews, 48, Lewis Road, Derby; third, Mr. W. Marks, Rownhams, Southampton. A very good class.

Dr. R. Appleton, Beverley, East Yorks, was first for six blooms of show Dahlias; second, Mr. A. Robbins, 3, Prospect Place, Keynsham.

NON-COMPETITIVE GROUPS.

For a magnificent group, in which all sections of the Dahlia were admirably shown, Messrs. Hobbies, Limited, Dereham, Norfolk, gained the distinction of the only large gold medal awarded on this occasion.

Messrs. H. Cannell and Sons, Swanley, Kent, showed a brilliant display of single, Cactus and Pæony-flowered varieties, also a first-rate collection of Apples and Pears from their Eynsford Nursery. Gold medal.

Mr. J. B. Riding, Chingford, staged a representative collection of varieties, including all sections. The vases of flowers were interspersed with evergreen and golden-tinted foliage. Silver-gilt medal.

Messrs. Keynes, Williams and Co., Salisbury, showed a very nice lot of Cactus varieties, among which we specially noted Conquest, Johannesburg, Joan of Arc, Mrs. Charles Wyatt (purest white) and Cavalier (a crimson seedling not yet distrubuted). Silver medal.

Messrs. Carter and Co., Raynes Park, had a very nice assortment of Pæony-flowered and Cactus Dahlias. The flowers were charmingly arranged, and attracted much attention from the numerous visitors. Silver medal.

A gold medal was awarded to Mr. John Walker, Thame, for an exquisite group, in which the Cactus-flowered varieties were the leading feature.

A gold medal was also granted to Mr. T. West, Tower Hill, Brentwood, for a very showy and well-arranged group.

A similar high award was made to Mr. M. V. Seale, Sevenoaks, for a first-class collection, comprising the best varieties in commerce.

Messrs. Charles Turner, Slough, gained a silver-gilt medal for a beautiful collection of single and Pæony-flowered varieties.

NOVELTIES.

Maurice Rivoire.—A first-class certificate was granted to this Collarette variety. Shown by Messrs. Hobbies, Limited, Dereham, Norfolk. This is the first time that the Collarette section has been recognised by this society.

Uranus.—A Cactus-flowered variety, with drooping petals, mottled and striped scarlet on a white ground. First-class certificate.

Miss Stredwick.—A very pretty Cactus-flowered variety, deep pink with pale yellow centre; one of the prettiest yet exhibited. First-class certificate.

GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY.

THIS society held its ninety-ninth annual show in the grounds of the Scottish National Exhibition, Kelvingrove Park, Glasgow, on September 6, 7 and 8. As in 1901, when the show was also held in the grounds of the International Exhibition, a special effort was made, and a large amount was offered in prize-money, about £500 being the sum allocated in the prize schedules. This had the result of drawing a large entry, a number of exhibitors who do not usually complete at the Glasgow show coming forward. The trade exhibits, never so numerous as at the autumn exhibition of the Royal Caledonian Horticultural Society in Edinburgh, were more in evidence than usual, and added much to the attractions of the show. The competitive section was a large and varied one, and of very high-class character. The entries numbered upwards of 1,650, and the display in the marquees was very fine, the quality being of exceptional excellence as a whole. Pot plants were very good, and the cut flowers, always a prominent feature at a Glasgow show, were highly meritorious. Vegetables were splendid for the season, and the fruit classes were very fine.

For the prize for a group of plants, Mr. A. Kelly, Dinneiddwg Gardens, Milngavie, set up the group which carried off the premium. It was one of high quality, both the plants and arrangement being excellent. Mr. T. Muir, Beechwood, Bearsden, was second with a capital group; third, Mr. J. Templeton, Richmond House, Dowanhill. Mr. A. Davidson, Craigend Castle, Milngavie, was awarded the first prize for an excellent group of stove or greenhouse plants. Messrs. Malcolm Campbell, Limited, were awarded the first prize for twelve table plants in a strong competition. In the other pot-plant classes the leading winners were Mr. J. Templeton; Mr. J. Jamie, Ayr; Mr. A. D. Hughes, Calderglen, Blantyre; Mr. D. Halliday, Ascog, Rothesay; Mr. A. Davidson; Mr. T. Nelson, Muirbank House, Rutherglen; Mr. J. Thomson, Broomfield, Giffnock; Mr. C. Pattison, Linwood; Mr. J. M. Stewart, Mollance; Mr. A. Aitchison, Kilsyth; Mr. J. Swan, Lennoxtown; Mrs. Thomas Carlyle, Glasgow; Mr. W. M'Lean, Strathleven, Dumbarton; Mr. T. Muir; Mr. W. Jenkins and Mr. D. Little. As already indicated, the cut flowers were a very strong department, and they were remarkably well shown in almost every class. The Sweet Pea classes were very well filled, and the flowers of superior quality. Mr. J. Fletcher, Auchenbeath, Lanarkshire, was very successful, winning firsts for the collection, nine vases, six vases, one vase scarlet, one flaked, one bicolor and one pink. Messrs. Thyne and Son, Dundee, who have had several notable successes with Sweet Peas this season, were second for the collection. Mr. John Smellie, Busby, was first for twelve vases of Sweet Peas with grand flowers. Dahlias, always a strong section at Glasgow, were very fine, and the prize for the collection of these flowers was won by Mr. Smellie with a grand lot. Messrs. Campbell and Son, Blantyre, were second. Mr. Smellie was also first for twenty-four show or fancy and for twelve Cactus. Other leading winners with Dahlias were: Mr. W. Hamilton, Ferniegair; Mr. G. Bowness; Mr. J. Malloy, Balfron; Mr. D. Barbour; Messrs. Campbell and Son, Mr. H. Cumming and Mr. W. Jenkins. Carnations were very well shown, as also were early Chrysanthemums, which were exceedingly good, Messrs. Campbell and Son, Mr. C. A. Pulsford and Mr. J. G. Williamson leading with the former, and Mr. Smellie and Mr. T. Robertson, Eastwood, being among the leading winners with the latter. The best collection of hardy flowers came from Mr. J. Miller, Castlemilk, Rutherglen, Messrs. Cocker and Son, Aberdeen, coming second. For twelve vases of herbaceous flowers, Mr. W. Young, Craighlaw, Wigtownshire, was first. Roses were excellently shown, although rather unequal, Messrs. Cocker and Sons coming in first for the collection and several other classes. Messrs. Hugh Dickson, Belfast, staged grand Roses for the season in the class for thirty-six blooms, and were first. For twenty-four, Mr. W. Virtue, Castlebank, Lanark, led, and among the other winners were Messrs. D. Robertson and Co., Mossend Nurseries, Helensburgh; Mr. J. Finny, Summerhill, Shandon; Mr. P. Kenyon; and Mr. J. Russell, Newton Mearns. Messrs. G. Mair and Son had the best twenty-four Gladioli. Pentstemons, Antirrhinums, Pansies, Violas, &c., were very fine, Mr. R. Dunsmore, Avonbridge; Mr. C. Kay and Mr. J. Smellie carrying off the leading prizes with the Pansies and Violas. Baskets, bouquets, &c., were very well done; but space cannot be spared for details. Mr. W. P. Bell had the best table decoration, this being in fine taste and highly effective.

The fruit classes were of great importance, and Mr. James Gibson, Welbeck Abbey, was first for a table of dessert fruit, Mr. D. Kidd coming second; but Mr. Kidd had the prize for decoration in this class. Mr. Gibson had the best twelve and best six dishes of fruit. Grapes were very fine, and Mr. James Dixon, Rowallan, repeated his successes elsewhere with eight splendid bunches, Mr. D. Halliday coming second. Other winners with Grapes were Mr. J. Finnie, Mr. J. Small, Mr. H. Macskimming, Mr. D. Gouck and Mr. D. Halliday. Mr. Gibson had the best collections of Apples and of Pears, Mr. J. M. Stewart that of Plums, and Mr. J. Ferrier and Mr. R. Greenlaw the best twenty-four respectively of Peaches and Nectarines. Prizes were offered for three classes of collections of vegetables, the leading one going to Mr. James Gibson with one of his usual high excellence, Mr. C. Shaw being a good second. The other classes were won respectively by Mr. James Brown, Mr. C. Shaw and Mr. J. Gray. The other vegetable classes cannot be given at length.

The trade exhibits were very fine, gold medals going to Messrs. Sutton and Sons, who showed one of their stands of magnificent produce; Messrs. E. Webb and Sons, who exhibited vegetables, &c., of their usual first-class stocks; Messrs. Blackmore and Langdon, who sent magnificent Begonias; Messrs. Dobbie and Co., who staged their specialities in great variety and excellent array; Messrs. Clibrans, who made an effective display of flowers, &c.; and Messrs. Austin and M'Aslan, who made an effective display of plants, &c. Other gold medals went to Mr. William Leighton and Messrs. William Cutbush and Sons, who displayed some of their specialities in an attractive way. A similar award went to Messrs. M. Campbell, Limited, for a table of fruit. Messrs. J. Gibson and Co. received a first-class certificate for hardy flowers, as did Mr. D. G. Purdie and also Messrs. Young and Co. for Carnations. Other special awards were given to Messrs. Cunningham, Fraser and Co.; the Killermont Nursery Company; Messrs. Williamson, Gemmell and Main; Mr. C. Young and Messrs. Hugh Dickson, Limited.

EAST ANGLIAN HORTICULTURAL CLUB.

ABOUT 130 members and friends of this club recently availed themselves of the opportunity of having a good look round the gardens, &c., at Sandringham House. The party were met at the Norwich Gates by Mr. H. Cook, the head-gardener, who had kindly undertaken to act as guide for the occasion. Winding through paths edged with grass as green as one could wish, and passing almost endless stretches of herbaceous borders, with Lilies, Marigolds, Dahlias, Michaelmas Daisies, Coreopsis, &c., carrying multitudes of flowers, one calculated how many gallons of water had been used to keep up such an effect. For with our past climatic conditions this was quite an horticultural achievement. The party were next led through Bamboos, which certainly gave an idea of a jungle, to the water garden. And what a cool retreat it was! Beautiful Nymphæas, with their blossoms expanded upon the surface, were an admiration, and those who know aquatics could see other choice subjects, though not in flower. Stately Bulrushes and graceful Sedges surrounded the edges of the ponds. Rising to the higher and drier ground, the party passed thousands of rich gems of the rock garden planted in nooks and crannies formed by huge boulders of the local red car stone. Another walk, during which many interesting conifers were passed, and the Italian garden was reached, with neatly-trimmed Box edging and brilliantly-coloured fibrous-rooted Begonias. A little further and the terrace was reached, looking over the wide sweep of beds blazing with colour and dotted with neatly-trimmed shrubs to the expansive stretch of lawn beyond. The party next crossed the road to inspect the kitchen gardens, flower-borders and glass-houses. The outdoor fruit crop was wonderful. Apples and Pears, whether they were bush trees, espaliers, or cordons, were laden, and the colour of many was grand, some of the trees of Mère du Ménage Apple at a short distance looking like a sheet of glowing crimson. Next the vineries and Peach-houses were inspected, where, although large crops had been gathered, there was still sufficient evidence left of the skill of the gardener-in-chief in this direction.

ROYAL HORTICULTURAL SOCIETY.

DAHLIAS were unmistakably the leading feature of the meeting and exhibition of the Royal Horticultural Society held on Tuesday, September 12. The comparatively new Pæony-flowered Dahlias were very much in evidence, and it is surprising to note the increase in popularity made by this section within the last few years. The Collarette varieties were shown in greater numbers than we ever remember seeing them before. There was also a fair display of hardy and indoor fruit on this occasion.

FRUIT AND VEGETABLE COMMITTEE.

Present: Owen Thomas, Esq. (chairman), and Messrs. W. Bates, H. H. Williams, G. Woodward, A. Dean, W. Pope, A. R. Allan, G. Reynolds, J. Harrison, W. Poupart, H. S. Rivers and A. W. Metcalfe.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, showed a very creditable collection of dessert and kitchen Apples, both on dishes and as pot trees. The latter were well cropped, and among the best specimen trees were Cox's Orange Pippin, Bismarck, Paroquet and Rival. Bismarck was, perhaps, the best-cropped variety shown. Silver Banksian medal.

Messrs. W. Paul and Son, Limited, Waltham Cross, had a capital display of Plum and Apple trees in pots. All of the trees were splendidly cropped, and the dessert Plums in particular were in the very height of perfection. Some of the best Plums were Prince Englebert (deep blue), Monarch (blue), Jefferson (yellow) and Coe's Golden Drop. Silver Knightian medal.

A collection of Grapes was shown by H. B. Brandt, Esq., Capenor, Nutfield, Surrey. The black varieties were shown in better condition than the white Muscats. The two varieties Appley Towers and Black Alicante were the pick of the varieties shown. Silver Knightian medal.

A highly creditable display of hardy fruit, including Apples, Plums, Damsons and Pears, was shown from the Purfleet School Garden, Essex. The whole of the fruit had been grown by boys aged from eleven to fourteen years, and the fruit shown reflected credit upon the useful work carried out in this school garden. Silver Banksian medal.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, showed about a dozen dishes of his highly-coloured Apple Red Victoria, one of the showiest varieties in cultivation and reputedly a heavy cropper.

An exhibit of pot-grown Nectarines was sent by Leopold de Rothschild, Esq., Gunnersbury Park, Acton (gardener, Mr. Reynolds). Three of the best varieties shown were Pineapple, Humboldt and Darwin. Silver Knightian medal

A silver-gilt Knightian medal was awarded to Mr. Stanard, Hertford, for an extensive exhibit of Onions. The collection contained about thirty baskets of large exhibition Onions, together with undersized bulbs of the same varieties. The object of the exhibit was apparently to show the great improvement in size wrought by good cultivation.

ORCHID COMMITTEE.

Present: H. J. Veitch, Esq. (chairman) and Sir Jeremiah Colman, Bart., Messrs. F. Sander, R. Thwaites, A. McBean, W. Cobb, J. Charlesworth, J. Cypher, W. H. Hatcher, C. H. Curtis, W. H. White, Gurney Wilson, W. Bolton, de B. Crawshay, J. O'Brien and H. G. Alexander.

Messrs. Sander and Sons, St. Albans, were represented by a showy group of Cattleyas and Vanda sanderiana. Silver-gilt Flora medal.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, showed numerous Cattleya hybrids, Oncidiums and Vanda cærulea. Silver Banksian medal.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, showed many handsome flowering plants of Cattleya Iris and C. thurgoodiana, also the singular-looking Bulbophyllum grandiflorum. Silver Banksian medal.

A group of Cattleyas and Cypripediums was shown by Samuel Larkin, Esq., Ridgeway, Haslemere, Surrey (gardener, Mr. G. M. Hale). Silver Banksian medal.

A similar award was made to Messrs. Hassall and Co., Southgate, for a meritorious group.

Messrs. Charlesworth and Co., Hayward's Heath, showed a small group of choice and delicately-coloured Cattleyas. Silver Flora medal.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE AUTUMN ROSE SHOW.

THE National Rose Society scored a big and unqualified success on Thursday of last week, when it held its annual show of autumn Roses. Even the most sanguine enthusiast could scarcely have expected such a display after the exceptional and unfavourable weather that has been experienced, and the whole exhibition was a glorious demonstration of the usefulness, beauty and fragrance of our national flower. The excellence of the exhibition was not, however, the only surprise in store for visitors. A few weeks ago an esteemed correspondent suggested the postponement of the show to a later date, mainly on the grounds that it would only be suitable for Scottish and Irish growers; but although the Roses from the Emerald Isle were, as usual, of very high quality, especially those from Mr. Hugh Dickson of Belfast, not one first prize went over the Border. It is true the three best blooms in the nurserymen's section came from the Land of the Heather, but the Scottish-grown Roses were not so good as we are accustomed to see them at this autumn show, a fact for which no doubt the weather was responsible. This autumn display of Roses is of even greater educational value than the society's summer show, because most of the varieties shown are what may be termed, for the want of a better expression, good garden Roses—Roses that will produce an abundance of blooms of good substance and colour over a long period. It is not so very many years since the Rose was regarded as purely a summer visitor; but now the autumn display is almost as large as that of June and July and extends over a longer period. The colours of some varieties, too, are more fully developed at this season, when the flowers open slowly and are not subjected to the scorching sunshine that we expect in July.

Two features were particularly noticeable in connection with the show. One, and perhaps the least important, was the wonderful strides that Roses of a certain colour are making in public favour. We refer to such varieties as Lyon, Gottfried Keller, Irish Elegans and Marquise de Sinety, all of which possess a mingling of delicate yet brilliant colours that are well-nigh indefinable. On every hand superb examples of one or the other of these beautiful Roses were to be seen, and it is not surprising that such are in large demand. The other, and we think more important feature, was the very great improvement which has taken place in the methods of showing Roses, an improvement that is due in no small measure to a desire on the part of the committee and the public to see Roses staged in as natural a manner as possible, so that at least some idea may be gained of their habit. The flat baskets that were, if we remember rightly, introduced for the first time last year provide an ideal means of displaying sprays of garden Roses in a natural manner, as also do the vases now so largely used by nurserymen in their large groups. The amount of time and patience expended on these must be very great indeed, yet the result fully justifies the labour and adds very considerably to the attractiveness of the exhibition as well as displaying the Roses to the very best advantage.

The class for Rose fruits, which in a season such as the present we expected to see well filled, was not so large as usual, a fact that is rather difficult to understand. Surely it cannot be that the value of Rose fruits late in the season, when the flowers have all but departed, is not appreciated? Certainly there are Rose heps in abundance this year, and the poor competition was therefore the more inexplicable.

New Roses were less plentiful than usual, and only one variety, described on another page, received a medal. Some dissatisfaction was expressed on account of the judges of new Roses refusing to consider a variety that had been grown under glass. Last year we expressed a hope that Roses grown under glass, whether new or old varieties, would be excluded from this exhibition, or that if they were admitted they would be plainly labelled as artificially-grown blooms. Having expressed such a wish, we can only think that the judges were right in their decision. On the other hand, in fairness to exhibitors it ought to be plainly stated in the schedule that new Roses grown under glass would not be eligible for medals or cards of commendation.

Generally speaking, the quality of the flowers was excellent, and the arrangements made by the committee left little to be desired. A report of the show, with the list of premier blooms, appears on another page.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 26.—Royal Horticultural Society's Meeting and Exhibition of Vegetables. Lecture at three o'clock on "Salads—Subjects for and Their Preparation," by Mr. C. Herman Senn. Wood Green and District Horticultural Society's Meeting.

September 27.—Irish Gardeners' Association and Benevolent Society's Meeting.

September 28.—Festival of Empire Autumn Rose Show at Crystal Palace (two days).

West of England Chrysanthemum Society.—This society, established as far back as 1890, is this year holding its exhibition in the Guildhall, Plymouth, on November 7 and 8. We are glad to learn that the society has been rejuvenated, and with the strong committee formed, there is every reason to believe it will within a very short time become as prominent as formerly. The schedule now to hand makes mention of new classes and increased prize-money. The schedule may be had by intending exhibitors from the secretary, Mr. E. C. Arnold, Plymouth Market, Plymouth.

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday evening, September 11, Mr. Charles H. Curtis in the chair. The death certificate of the late Mr. George Attrill was produced, and the sum of £42 4s. 8d. standing to his credit was granted his nominee, Mrs. Attrill. The death certificate of the late Mr. George Thompson was produced, but this matter was deferred until the next meeting. Two amounts of interest were granted to members as per Rule 18. The amount of sick pay for the past month was £30 10s. Another discussion took place on the National Insurance Bill as affecting this society, but nothing definite can be arrived at for the present.

The Midland Daffodil Society.—We have just received the thirteenth annual report of this flourishing society. The report contains the names of all the winning flowers at the last Daffodil exhibition, as well as particulars of the opening ceremony and a report of the speeches at the dinner in the evening. An interesting discussion on the "Progress of the Daffodil," which was introduced by the Rev. G. H. Engleheart, and in which many of the leading Daffodil specialists took part, is recorded. The book also contains the new schedule for the next show in 1912. We observe that this society has adopted the Royal Horticultural Society's new classification, and this will doubtless be followed by most of the other Daffodil societies. The schedule has been enlarged, and among the new classes introduced there is one for a collection of original species and natural hybrids of Daffodils. The secretary, Mr. Herbert Smith, 22, Tenby Street North, Birmingham, will be pleased to send a copy of the report to any who are likely to become members.

A rare shrub at Kew.—In the current issue of the *Kew Bulletin* Mr. W. J. Bean contributes the following interesting note about Elliottia racemosa: "A note on this interesting and extremely rare shrub appeared in the *Bulletin*, 1906, p. 226. At that time we were unable to say anything as to its beauty from direct evidence, as the two plants at Kew (which we believe to be the only ones in Europe) had neither of them flowered. The larger plant of the two, now about 7 feet high, has this summer borne a crop of 21 racemes, the first flowers opening on July 24. It proves to be a shrub of great beauty as well as interest and rarity. The racemes are terminal, quite erect, 6 to 9 inches high, 2 to 2½ inches in diameter, the flowers mostly solitary, occasionally in pairs or in threes on the peduncle, which is white and ⅝ to ¾ inch long. Flowers pure white, fragrant, ¾ to 1 inch across; corolla lobes 4, narrowly oblong, obtuse, ultimately much reflexed, free to the base; calyx minute, saucer-shaped; stamens 8, less than half as long as the corolla lobes; style as long as the corolla lobes, in the hooded apex of the lowest one of which the stigma is at first enclosed. The flower-bud is at first erect on the peduncle; as the flowering time approaches it becomes inverted and nodding; but just before the expansion of the petals it rises again and stands out horizontally; and in that position the flower remains. A raceme 6 inches long bears about 40 flowers. Elliottia is a monotypic genus and belongs to the Ericaceæ. Flowering as it does towards the end of July, it would make a delightful addition to flowering shrubs could it ever become common in gardens. But it is almost or quite extinct in its native localities in Georgia, and no successful method of propagating it has yet been devised. Cuttings of the branchlets have several times been tried at Kew without success. The only plants raised have been two from root cuttings, neither of which ever looked like living, although they formed a few roots; both ultimately died. The fruit of Elliottia is not known, and it is unfortunate that although artificial fertilisation has been resorted to no fruit has been obtained. Bees have also visited the flowers in great numbers."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Saponaria officinalis flore-pleno.—A notable feature of this double-flowered Soapwort during the past season has been the preponderance of white flowers. In some seasons one gets a large proportion with the pink predominating; but, possibly owing to the unusual amount of sun, the average has been altogether in favour of white or with a very faint tinge, and I certainly think the contrast with the foliage is more effective. It is an old-fashioned plant, but welcome for the wild garden and occasional clumps in large borders.—A. G. B.

Perennial Phloxes.—I was pleased to see "A. D." advocating the spring propagating of these useful decorative plants in THE GARDEN for August 19, page 404. How seldom we see good clumps of Phlox flowering well in dry or moderately dry seasons! The plants are often left several years in the same position, and just simply chopped round with the spade once a year until the centre of the clump is practically dead; then, when the flowering season arrives, the plants are exhausted, and after a few hot days the flower-trusses shrivel up. I remember, several years ago, renovating a large herbaceous border, and after a fairly wet autumn nearly all the large clumps were dust dry. I may say the plants had been in the border probably ten or more years, with just an annual digging round. Needless to say, I had them all soaked thoroughly and divided before replanting. The Phloxes were suffering worst of all; in fact, my then employer often remarked that they were scarcely worth growing. After that season I propagated from cuttings each year early in February and planted out in May. One variety, Mrs. Jenkins, we employed to advantage, securing dwarf, sturdy plants from 15 inches to 18 inches high, carrying large, substantial heads of bloom and large individual flowers. These plants lasted in bloom until late autumn; in fact, the side shoots were in flower until cut down by frost. With these Phloxes we used Lobelia cardinalis var. Firefly, with Harrison's Musk for groundwork, or a good yellow Viola. These borders were always admired, for no matter what the season, there was a good and lasting display of bloom.—JAMES PAGE, *Adelinas Gardens, Atvidaberg, Sweden.*

THE DAFFODIL CATALOGUE.

[*A Reply to "C. St. G.," page* 431.]

'Tis very well for you to joke,
But lack-a-day! for poorer folk
Our "rapture" mingled is with woe!
So many flowers we must forego.
For first of all we make our list
Of "Daffs. we *really can't* resist!"
Then next, with many a grievous frown,
We have to cut that first list down,
And make out Order number two,
Those "without which we *cannot* do!"
Then counting up the £ s. d.,
Reluctantly write Order three,
Which is a sadly curtailed thing
To make our garden gay next spring.
It is indeed a mingled bliss
To read of all we needs must miss;
Yet Hope still whispers, "O'er our sod
Some day those Daffodils shall nod."

C. M. P. D.

Veronica subsessilis.—The majority of the varieties of the Speedwell family are but little affected by hot, dry weather, always supposing they are planted in soil that has been deeply and well worked and is not over-light, and the above-named variety is no exception to the rule. It is one of the best for the hardy plant border, the flowers supplying a colour (a rich deep violet) that is somewhat rare. The spikes are freely produced, and as a rule last a long time, although this season they are over somewhat earlier than usual. A pleasing and effective contrast has been effected by grouping this with Prunella grandiflora alba, a very pretty form with flowers that are a clear pure white, and not a dirty, uncertain shade as one finds in some so-called whites. I am rather surprised it has done so well this year; as a rule, it is seen at its best in a dull, moist summer. Like the Veronica, it was over more quickly than usual this year, but the fact that the two flowers were fully out together made the contrast very pleasing and effective.—B.

A fruiting Lycium.—In one of the town nurseries of Messrs. G. Bunyard and Co. at Maidstone, running over a close Yew hedge, is one of the Lyciums, or, as commonly called, Tea Tree, that is fruiting freely, the rich scarlet, Gourd-shaped fruits being carried in such rich profusion as to form very beautiful objects on both sides of the hedge. With Lycium europæum, as grown so generally, all are familiar. That has small violet-coloured flowers in the summer, but, so far, has never been seen to fruit. The variety at Maidstone seems to be in appearance, foliage and

growth identical with L. europæum; but its luxuriant fruiting makes it there a remarkable and beautiful object. L. afrum is, because from Africa, assumed to be tender, needing a conservatory; yet that fruits. Can this be L. afrum at Maidstone? In any case, there it is absolutely hardy. If the variety will fruit in other places outdoors as it does there, then does it merit universal culture. In one well-known list of hardy berried plants, this Lycium, one of the most pleasing, is not mentioned.—A. D.

Plants from British Columbia.—Mr. E. R. Bernard, on page 368 of your issue of August 5, mentions the yellow Erythronium of the Rockies. I brought bulbs from the Rockies and they bloom well—not as vigorously as among the rocks, but, still, far superior to the common Dog's-tooth Violet. I also brought a Camassia from Vancouver Island; it is not more than 12 inches high, with several blooms open at a time. Romneya does well. I do not think the plants last many years. I have a young Dogwood (C. Nuttallii) which I also brought over; it does well and I hope some day may bloom. The second autumn bloom of this tree is finer than the first. I have raised it from seed here, but lost the plants when they were about eighteen months old. I have heard of Cornus Nuttallii flourishing and blooming in Scotland. It is a very difficult tree, even when quite young, to transplant, as is also the delightful Arbutus Menziesii, which flourishes all along the coast of British Columbia and on Vancouver Island. I brought young plants over, but they died. I have not tried raising from seed. Both of these trees should flourish in many parts of the South and West of England, as the climate of British Columbia resembles this in many ways. The soil is very well drained, and doubtless this is the cause of some plants failing here.—DELTA, *Sussex.*

Trees in Victoria Park, Bath.—Conspicuous among other trees at the present time are several specimens of the Tree of Heaven (Ailantus glandulosa), bearing large quantities of seed. The finest plant is in the Botanic Garden. This is a shapely tree about 60 feet in height. Every branch is literally covered with large bunches of its brilliantly-coloured winged seeds, the whole tree having a most beautiful and remarkable effect, particularly with the sun shining upon it. Probably the hot, dry weather experienced during the time the trees were in flower, and subsequently, would account for the unusual quantity of seed. This tree is sometimes objected to on account of its disagreeable smell when in flower; but this is only noticeable, to any great extent, in the pollen-bearing tree, so that for planting in places where the odour might be taken exception to, the seed-bearing form should be used. Another tree which has flowered much more freely than usual is Kœlreuteria paniculata. This is a small-growing tree with handsome foliage, the flowers, which are small and pale yellow in colour, being borne in large panicles at the tips of the branches. A good-shaped tree in the park has been flowering with great freedom, while a smaller tree, although not flowering so freely, has borne much larger panicles, many of them being quite 20 inches in length and as much across the widest part. The flowers of this tree seemed brighter in colour, and are now succeeded by the somewhat peculiar, membranous, triangular-shaped seed-pods, terminating in an acute point and measuring from 1½ inches to 2 inches in length.—J. D. HALLIBURTON, *Victoria Park, Bath.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PLANTS IN TUBS.—To disturb the general appearance of the flower garden by the removal of some of the plants is always a matter for regret, as often some of the bedding effects are just at their best at this time of year. Although it may happen that no frost occurs to seriously affect bedding plants for some time to come, it will be wise to have the places quite ready to receive those plants which are too tender to stand frost. Under certain circumstances it may be desirable to leave the plants out for some little time longer. In this case some material should be at hand to cover them in case of frost. At this time of year the flower garden will need constant attention in regard to the removal of dead flowers and foliage, or it will quickly present an untidy appearance. The work of propagating the stock for next year must be pushed on. In many cases it will be necessary to save some of the old plants to supply cuttings in the spring. These may either be potted up singly or several placed into large pots or boxes. Some of the most suitable plants should also be selected for making standard specimens for next season; in fact, a draft of the whole of the bedding scheme for next year should be drawn up, so that it may be known approximately what number of plants will be required. In this way the work of propagation will be greatly accelerated.

Border Carnations.—As soon as the layers are sufficiently well rooted to be got up, they may be potted into 3-inch pots or planted out in a border. Where the soil is cold and heavy, it will perhaps be advisable to adopt the former method and put the plants out in the spring. A suitable compost for potting them in is three parts loam to one of leaf-soil and a good sprinkling of coarse sand. The plants may be wintered in a cold frame, where the pots should be partly plunged in ashes. Thoroughly water the plants in when potted, keep the frame close for a few days and shade from bright sunshine; but as soon as they have recovered from the check caused by disturbing the roots, they must be gradually hardened. Eventually the lights may be entirely removed till hard frost sets in. If it is intended to plant them out now, the ground must be well prepared. Should it be stiff and heavy, a good quantity of well-rotted leaves and burnt garden refuse should be dug into it. The soil must be well broken up. In planting, see that the ground is made quite firm, or frost will do the plants considerable damage.

Spring Bedding.—Ground which is not occupied by summer bedding plants should now be prepared for the spring flowers. At this time of year, when work is not so pressing, it is wise to well till and manure the beds. This will save a good deal of labour at the summer bedding-time, when work is pressing in all quarters, as then the beds will only need to be well broken up. The planting of bulbs on vacant ground or on grass may be proceeded with at once. Some of the smaller Narcissi, Chionodoxas, Scillas, and Muscari may also be planted in the alpine garden. They should be put in rich soil.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

TAKING CUTTINGS.—No time should now be lost in getting the remainder of the cuttings put in, although, under favourable circumstances, such subjects as Calceolarias and Violas may be successfully propagated for a month yet. Antirrhinums from cuttings are more reliable than from seed, as besides being quite true to colour if properly selected, they will provide plants of uniform height. Those from seed, no matter how carefully they have been selected, will show here and there plants with a straggling habit, which detracts from the general appearance of neatness. A second crop of Pentstemon cuttings may now be placed in cold frames, and where a rapid increase of stock is desired, the old stools should be lifted and planted in boxes, and protected from severe frost through the winter. These will provide good cuttings in the spring that will be found to flower quite as early as autumn-rooted cuttings.

Phloxes may also be propagated at this time from young shoots that will be found at the base of the plants. These will root best at this season if given a little bottom-heat. We prefer, however, the spring propagation of Phloxes when the young shoots are from 2 inches to 3 inches long.

Violas have suffered severely from mildew this season, and it will be difficult to get good cuttings of some varieties. Those who have a stock in the reserve garden, where the plants have been cut over once or twice and kept well supplied with water, will have no difficulty in getting a sufficient crop of cuttings. The plants, exhausted by a long season of flowering in hot dry weather, seem to succumb readily to the mildew pest. Numerous plants in the herbaceous border should also be taken in hand at this time, and cuttings or pieces of the rootstocks placed in cold frames. Heucheras, Monardas and several others, while being quite hardy, usually suffer through the winter by being raised out of the ground after frost, and, to ensure good plants for next season, cuttings should be put in now.

Anchusa italica cannot be relied on to withstand a severe winter, so should have the protection of a cold frame. The plants should be lifted entirely; the young growths, with a piece of the rootstock attached, may be treated as cuttings. The roots, if cut up in pieces in the manner usually adopted for Seakale, will form fresh crowns to furnish a late supply of flowers.

Future Plans.—The present is also a suitable time for making any suggestions as to the re-arrangement of next season's summer bedding while the present inmates are still in flower; but it would not be wise to condemn altogether any that may have proved failures this season, for the weather has been very trying to plants that thrive only in a moist atmosphere. If many changes are contemplated, the winter treatment of the beds will have to be considered, as some subjects require liberal manuring, while others require little or none. The two extremes may be found in Begonias and Geraniums. The former revel in a very rich, loose compound, while the latter flower best under opposite conditions. Seeds of annuals and perennials are abundant this season, and when the strain is a good one, it is both interesting and economical to secure these at home. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

CORDON PEARS.

THE Pear crop on cordons seems to vary greatly this season, and is hardly likely to be up to the average. I recently saw about one hundred and fifty trees that were planted ten years ago for market purposes and have received careful attention throughout, but not more than twelve score Pears were to be found on them. There had also been a battle with slugworm and a form of Cladosporium. Only three sorts were planted--Williams' Bon Chrétien, Doyenné du Comice and Glou Morceau—with a view to obtain a supply in the respective seasons. Considerable difference of opinion prevails as to the merits of the last-named, but I think there is no doubt this really arises from the fact that a very inferior Pear was often sold for it, and this is the more convincing when we find some writers describing it as "flat and loose-textured," characteristics quite at variance with the true Glou Morceau, the flesh of which is very white, juicy and rich, and there is hardly a Pear grown so close in texture. It is also almost unique in its keeping properties. I could do little myself with Williams' Bon Chrétien as a cordon; there was a tendency to long, straggling growth which it was very difficult to counteract. Clapp's Favourite was a far better cropper as a cordon, although even more ephemeral in character than the better-known Williams' Bon Chrétien. In a season like the present, when wasps are more in evidence than for many years past, the ease and thoroughness with which cordons may be netted are a great point in their favour. Early sorts like Jargonelle, Windsor and Green Chisel on standards and tall pyramids have suffered severely, and in many cases very little of the crop was saved. Nor are the wasps' attentions confined to the early-ripening sorts. I saw a tree of Louise Bonne of Jersey in the open where the fruit had been tapped by tits. The wasps were busy completing the work of destruction. It is the anticipating of the attack of the birds that renders it advisable to net early in the season and with a small-mesh net. This obviates the necessity of enclosing the choicer fruits in muslin bags, a long and tedious process. It might be well at this season to remind THE GARDEN readers of the excellent part played by plaster of Paris as a preservative of choice varieties of Pears and Apples when they have been tapped by birds. Moisten just sufficient of the powder for each hole, insert quickly and make perfectly smooth, so that there is no chance of any ingress of air. Fruit so treated will keep perfectly sound until thoroughly ripe. There is never the slightest sign of decay. A. G. B.

FRUIT NOTES.

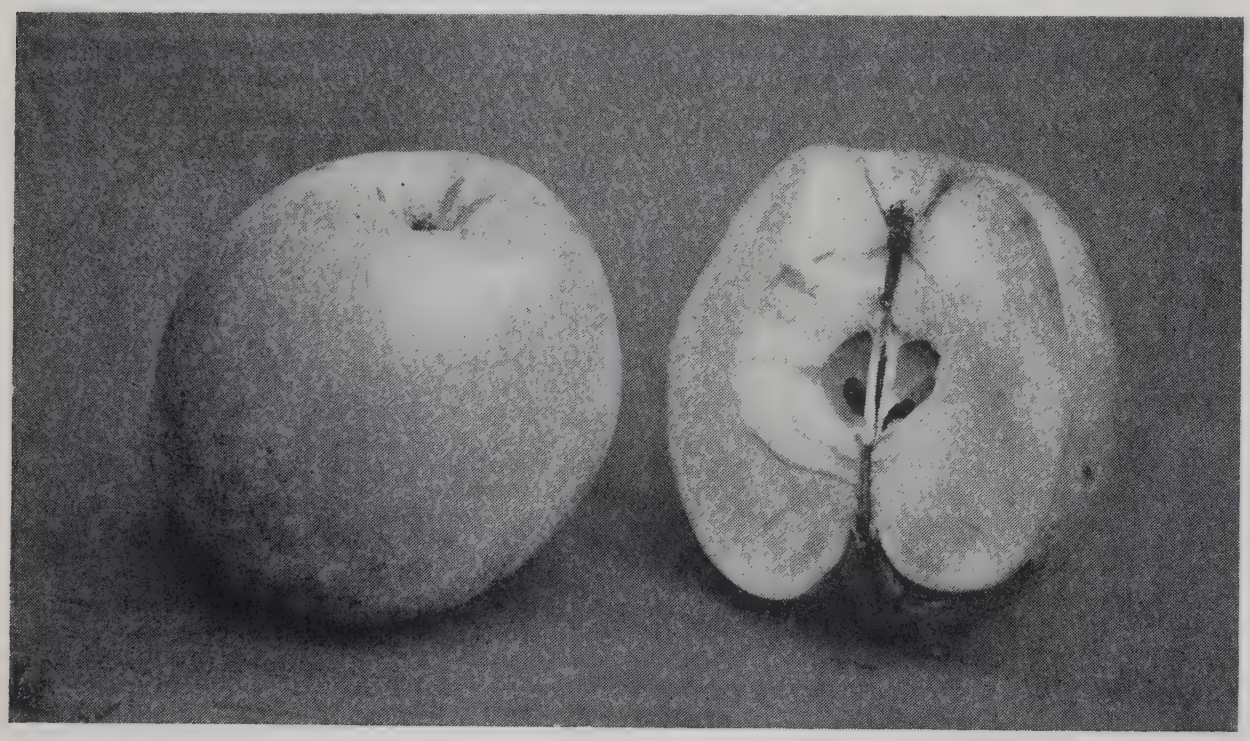
CURRANT SOUTHWELL.—The introduction of new varieties of Red Currants is not as common as that of, let us say, Sweet Peas, and when one does come along which is of exceptional merit, it is practically certain at once to obtain, and for many years to retain, popularity. Of such as these is Southwell, a product of the skill of the great Southwell firm of Merryweather, which gave us Apple Bramley's Seedling. The new-comer is dwarfer in habit than its predecessors, and is an immense cropper; the fruits are large in size, rich and clear in colour, and the flavour is, beyond doubt, well above the average. For the small garden and the large one it is certain that this Currant will be valuable; but there is just an element of doubt whether it will add as much lustre to an honoured name as Apple Bramley's Seedling did in the days gone by. It will be of interest to many readers to know that the firm has anything between 120 tons and 160 tons of Apple Bramley's Seedling this year, from which one would gather that it is not the light cropper people would have one believe.

ROOT-PRUNING.—Trees of any age that grow so splendidly that they expend all their energy upon the production of beautifully straight, strong shoots and handsome leaves demand attention at the roots, with a view to turning their powers towards the production of fruit, since it is for this and not for branches that we plant the trees. In the case of trees planted last season it will answer the purpose to lift and replant forthwith; but established plants must have a trench cut round 3 feet or so from the trunk, all roots severed and pared smoothly over at the ends with a sharp knife, and the trench refilled with sound, fibrous loam. Up to about the age of ten years the whole of the roots can be dealt with in one season, but older than that it will be wise to tackle half the tree in one season and finish off the operation in the next. It is essential that branch-pruning shall be done with the root-pruning, and it must take the form of entirely removing a large number of the shoots and of retaining the remainder at their full length, save for the unripe tips. Both the root and branch cutting ought to be accomplished before all the leaves have fallen, and the sooner it is in hand the better.

PREPARING FOR PLANTING.—Immediately ground falls vacant on which it is purposed to plant fruit trees during the ensuing autumn, the work of preparation ought to be put in hand. We shall not, in all probability, do the actual planting for another month or more; but when the important moment arrives, things will proceed far more smoothly if all is in readiness. Apart from this, the open stations will be considerably sweetened by aeration, and thus the earlier and better establishment of the roots will be favoured. If any error is made in the size of the stations, let it be on the side of bigness, since it is always advantageous to have a good surround of fresh soil beyond the extreme spread of the roots. Before setting the roots in position, a layer of new soil should always be put over the bottom of the hole, the shape of which ought to be approximately that of an inverted saucer.

PLANTING STRAWBERRIES.—All readers of THE GARDEN should have finished the planting of Strawberries long before this date, because it is necessary for those plants from which it is desired to secure a full crop in the first season to have had abundance of time and opportunity to have become splendidly rooted before the progress ceased for the year. This cannot be ensured now, and it emphasises the importance of early planting. However, there are times and circumstances that necessitate late planting, but all the work ought to be finished between the present and the middle of October, and it will usually be wise to plant closely, not to allow the plants to carry any crop, and to transplant them at the full distances next year.

WALL TREES.—Amateurs are rather prone to neglect these in the matter of watering, with the result that they do not carry as satisfactory crops as they ought to do. The fruits are sometimes as numerous as when the cultural conditions are better, but they do not attain the size they should do, and they are invariably inferior in flavour and appearance. When the border is on the dry side, water it heavily, and repeat the application as often as may be required to maintain pleasant moistness. Supplements of weak liquid manure are almost always beneficial, but judgment is necessary, or they induce over-luxuriance. FRUIT-GROWER.



THE NEW CULINARY APPLE CHARLES EYRE. (*See page* 462.)

VINES AND PEACHES IN THE SAME HOUSE.

ALL Vines growing under glass will now do well with a fair amount of fresh air, and Peaches growing in the same house will also need it, especially those trees from which the fruits have been gathered. It sometimes happens that when the Peach trees have been denuded of all their fruits they are neglected, both in regard to cleanliness of branches and moisture at their roots. This is a great mistake, because an over-dry border often enough is the chief cause of the premature

falling off of flower-buds in the spring. All leaves should mature naturally, and so fall off; but when they are allowed to become covered with dust and get choked, as it were, they fall off too soon, and this has a bad effect on the buds at their base. The healthier the leaves, the firmer and plumper will be the fruit and wood buds. Now comes the question, How must the cultivator apply the requisite moisture to the Peach trees while there are ripening Grapes in the same house? The chief thing is to select a fine bright morning on which to do the work. The foliage may be thoroughly syringed and the border freely watered with clear water only. If the ventilators are opened wide, the atmosphere will soon become as dry as it is desirable it should be. If, however, the weather suddenly becomes dull and there are hot-water pipes in the house, they may be slightly warmed and the ventilators kept open at the same time. It is not advisable to have the atmosphere of vineries and Peach-houses too dry and arid at this season of the year. Towards the end of October and onwards a dry atmosphere in a vinery is absolutely necessary in order to keep fully-ripened Grapes. There is at that time so much moisture in the air outside.

Ripening Grapes.—All white Grapes require a great amount of light at this season, so that it is necessary to remove every bit of lateral growth as fast as it appears, and also to move to one side some of the main leaves. Black Grapes need a certain amount of shade, that afforded by their main leaves being quite sufficient. Full exposure to light and sunshine would cause black Grapes to become tinged with red. The border soil must be kept uniformly moist, and on cold nights it will be advisable to warm the pipes and reduce ventilation.

AVON.

KITCHEN GARDEN.

AUTUMN AND SPRING LETTUCE.

LETTUCES do not like a damp or wet border. This, in my opinion, is worse than severe cold. Here I have a stiff, crude clay, perfectly useless for this tender plant, and to make it suitable I got road scrapings in quantity and improved the surface. This or other materials that lighten will greatly assist the crop. Such aids as burnt refuse are of great value as surface dressings. One can readily obtain them by saving the leavings of burnt rubbish in the garden; and, of course, there are others, such as spent manure, sand, or fine lime rubble. The latter is splendid in such soil, as it drains so freely. I am aware that in some localities, with the best means at command as regards soils, it is almost useless to sow autumn and winter Lettuce. Here some protection must be afforded in the shape of cold frames, and those who have seen the autumn-sown Lettuce near London in our large market gardens will know what pains are taken to get seedlings by sowing in raised frames and prepared soil.

A great deal depends upon the variety and situation, and though perhaps there is more in the first-named than many imagine, I have found the varieties of Lettuce with dark foliage and tinted leaves the most reliable, so that really, after all, we are by no means restricted to one or two sorts, as these are ample. Again, some favour Cos, others Cabbage varieties. The Cabbage invariably heart in earlier than the Cos; this makes them more valuable. At the same time, we have now an intermediate type of both Cos and Cabbage, and very well indeed they answer the purpose. For instance, in the Cos there is Little Gem, a beautiful small sort very distinct from the usual type. Of larger kinds there are the fine Winter Giant Cos varieties, the well-known Bath or Brown Cos (old, but still reliable) and the well-known Hicks' Hardy. This I have grown in the Midlands, without protection of any kind, by sowing in a suitable position. One of the newer Lettuces, Winter White Cos, though large, is a grand winter Lettuce, superior in quality to the Bath, and equally hardy. Champion Brown, a large form of the Bath Cos, is most suitable for autumn sowing. White Heart, a very fine type of Cos, is also most hardy and of excellent quality. Nonpareil, a variety noted for its hardiness, is a good Cos. Of Cabbage varieties there are even more to select from, and the old, but still good, Hammersmith Hardy Green is one of the most reliable. Stanstead Park is good, and Lee's Immense is very hardy. Of newer forms one that heads the list is Standwell, a very fine, hardy Lettuce. Ideal, though not advised as a distinct winter type, is almost invaluable for late autumn supplies. In the North I have had this in the open ground good till December. The well-known All the Year Round is an excellent late autumn variety. The same remarks apply to the Brown Dutch. That well-known Lettuce, Continuity, is equally valuable, as by making two sowings it may be had in autumn and early spring. There is also a Little Gem in the Cabbage section, much grown in the South, but doubtless this is a dwarf form of the one named. As will be seen, there is no lack of good varieties, and these are noted for their hardiness.

Herts. G. WYTHES.



FRUITING SPRAYS OF THE FLOWERING OR DOLICHOS BEAN.

AN ORIENTAL FLOWERING BEAN.

THE tropical weather has been accountable for many strange things among plant-life. In all parts of the British Isles, various plants rarely, if ever, known to produce flowers have this season borne flowers and fruits profusely. One plant that has flowered much better than usual is the Oriental Flowering Bean. It is a species of Dolichos belonging to the Natural Order Leguminoseæ. At the recent exhibition of the National Vegetable Society this plant was shown by Messrs. Sutton and Sons bearing numerous flowers and fruits, and was the subject of much discussion. So far as we know, it is a plant of ornamental rather than of economic use. The flowers are pale purple, but the most beautiful part of the plant is seen in its large flat seed-pods of bright chocolate maroon colour. The plant is of twining habit; the leaves are large and trifoliate.

THE ROSE GARDEN.

ROSES IN NEW ZEALAND.

I HAVE seen articles from other parts of the world in THE GARDEN from time to time giving lists of Roses which do well in different places, and have always been much interested in them. I thought perhaps it would interest other readers to know our favourite varieties in Palmerston North. This year something like 30,000 plants have been sold here and in the surrounding district. In nearly every garden may be seen the two Cochets, Frau Karl Druschki, Earl of Warwick, Hugh Dickson, Barone H. Snow, Mme. A. Chatenay, Caroline Testout, Mrs. Aaron Ward, Harry Kirk, Mme. M. Soupert, Oberhofgartner Terks, William Shean, Mrs. E. Mawley, Lady Roberts, Mme. Lambard, Liberty, Pharisaer, Mrs. D. Cross, Bessie Brown, Mrs. W. J. Grant, Robert Scott, Laurent Carle and a host of others. This year there has been quite a run on Mrs. E. J. Holland, Juliet and Mrs. Foley Hobbs. The first two at least may be put down to the beautiful coloured plates which appeared in THE GARDEN last year.

Pruning for exhibition is a much-discussed subject, and no two growers seem to prune the same way. One believes in cutting right back to within 3 inches or 4 inches of the bud, and another will have some other way. My own method, which some are copying this year, is to prune back well, but I always try to grow the show flowers on laterals from last year's wood, and to cut this year's wood back enough to make it produce laterals for next year, whenever possible. The idea I work under is that when the wood is solid it will grow a more solid Rose than pithy wood. I find that laterals which spring from this solid wood are mostly solid themselves (if they are not, I cut them off). Then by leaving 1 inch or 2 inches there is always plenty of room for flower-stalks to form. Etoile de France and Ben Cant are two Roses that do well this way, though they both have to be covered with a glass-topped box to bring them to perfection. An old lamp chimney with brown paper tied round it is very good. I was rather disappointed with Frau Karl Druschki until I adopted the above-mentioned plan of pruning, but now the blooms are lovely.

Barone H. Snow is one of the best show flowers I have ever grown, and, what is more, it is a good garden variety also. It blooms the whole year round. It does not want cutting back very much, Prince de Bulgarie is another favourite, but it has to stand more cutting than most of the other sorts, or the flowers come small. William Shean came to me by accident, but I would not part with it for anything now. Hugh Dickson is too gross a grower if it is cut back hard,

Whakaronga, New Zealand. FRANK MASON.

DO WE PRUNE OUR ROSES TOO MUCH?

THIS thought was suggested by a statement I heard made this season to the effect that the clever amateur who won the challenge cup at Ulverston, Mr. Calvert, did very little pruning, but that he highly manured his Roses. All who saw his wonderful blooms were astonished at their quality, and he had a Mrs. Myles Kennedy of which the like has never been seen before. Even its raiser, Mr. A. Dickson, seemed surprised at the beauty of this marvellous bloom.

I am convinced that many of our glorious Teas, the Cochets, Marie van Houtte, Anna Olivier and such-like, are much too severely pruned, and they are capable of giving us not only much larger quantities of flowers, but blooms minus the defects now so often seen, such as split centres and bad colour. Of course, I know the great point to remember is the probable injury by winter frosts, so that what might suit a grower who is happily immune from such hindrances — say, those having sheltered gardens and walls, or who live in a part that is favourably influenced by the Gulf Stream—would not suit others who could not rely upon such favourable conditions. Even then, I think, given a good winter following such a roasting as the plants have had this year, we can very well retain growths of greater length next March and April.

Why, does not Dean Hole say in his best of all Rose books that on his house he had the old Rose Souvenir d'un Ami of such a size that birds used to build in its branches? Only recently I was looking over the pages of a contemporary, and there a lady, writing from Scotland, close by the Clyde, said she had on a house wall a specimen of Marie van Houtte over 19 feet high, and that season there had been over half-a-dozen birds' nests taken from the tree. Now this proves my point that if we can get our Roses through the winter all right, we may most advisedly leave the growths almost unpruned, with the result that we shall obtain a more abundant blossoming.

It is obvious that such trees need feeding well; but who would mind giving a few gallons of liquid manure to such plants if they could obtain them? I am certain many Rose-growers do not know one-half the beauty there is possible in the lovely Tea-scented group and in the Hybrid Teas and Chinas, and my advice would be to spare the pruning-knife and shears.

If Mr. Calvert is a reader of THE GARDEN, other readers would be delighted with a word or two from him on this point, and I for one am never above taking a "wrinkle" from a brother in the craft; and Rose-growers are all brothers (and sisters, may I say?). P.



CAMPANULA PUNCTATA IN A SOUTH DEVON GARDEN.

THE FLOWER GARDEN.

THE MEADOW SAFFRONS.

THE first of the Meadow Saffrons to bloom here was one I have had for a number of years as Colchicum Bertoloni, which is a little larger than the common Meadow Saffron and paler in colour than the type of the ordinary C. autumnale. Its fault is that of the latter, its long tubes being too weak to stand much bad weather. This was followed closely by C. autumnale in the single forms. It is useful in its way, but has not the effect of the others. Next came C. variegatum, which is a pleasing Colchicum, though not so bright as some. Its distinct chequering of light and deep purple is interesting and pleasing. C. Bornmuelleri was the next to bloom, its magnificent flowers being always much appreciated with their purple blooms with a white zone at the base. Then C. veratrifolium (byzantinum of some) came into flower, and has been fine with its deep ruby purple flowers. The forms of C. speciosum followed with their Tulip-like flowers, varying from rose purple to almost ruby, and with big blooms of much substance. The white variety, C. speciosum album, is very fine. The double white variety of C. autumnale, C. a. album plenum, came into flower soon after these opened, and this has been succeeded by the double purple C. a. plenum. Both are very beautiful. The next to come will be the double rose variety of C. autumnale, C. a. roseum plenum, and this, again, will be the forerunner of the fine C. giganteum, which is after the style of C. speciosum, but considerably later. These useful flowers seem rather smaller this year, probably owing to the drought, as they like a moist soil, where they flourish much better than in a dry one.

Sunnymead, Dumfries. S. ARNOTT.

CAMPANULA PUNCTATA.

THIS Campanula is an old inhabitant of our gardens, having been introduced into this country in 1813, but is seldom met with nowadays, a rather surprising fact when its ornamental properties are considered. When in good health it is a vigorous perennial about 2 feet in height, with large, hairy, cordate-ovate leaves. It blooms very freely in the summer, while the secondary shoots often bloom well into the autumn, and a short flower-spike bearing one or two perfect blossoms may often be cut as late as the end of November. The individual white flowers, which are from 2 inches to 3 inches in length, are well worthy of more than a passing glance, the long trumpets, with their deeply-cut mouths, being profusely spotted in the interior with minute crimson-purple dots. The blossoms are hairy. In some cases the flowers, instead of being white, are of a soft rose colour, and occasionally they are violet. These variations have caused botanists to consider some of them as distinct species. For instance, Lindley described a plant sent home by Fortune from China as C. nobilis, but later C. nobilis was determined to be only a variety of C. punctata.

This Campanula covers an exceedingly wide range; being a native of Siberia, it is also found in China, Japan and Corea. Coming from a cold country, the plant is perfectly hardy and succeeds well in any ordinary garden soil, though where this is light and shallow and the summer is

hot and parching, its growth compares unfavourably with the dimensions it will attain in rich, deep soil with ample moisture. If it shows signs of failing health, it should be lifted and replanted in rich, porous compost. In places not suited to its culture it often dies in the winter, and has, in consequence, sometimes been classed as an annual; indeed, in one of the leading horticultural dictionaries it is placed under the annuals, but it is a true perennial, as is proved by the illustration opposite, which shows a colony that has been in its present position for four years, and as yet shows no sign of loss of vigour. In the shape of its flowers, which are almost Gloxinia-like in form, it bears a strong resemblance to the hybrids C. Burghaltii and C. Van Houttei. Of the different varieties the white form is by far the commonest, and is perhaps also the handsomest, large clumps 3 feet or 4 feet across when bearing hundreds of their large, pendent, white bells being as attractive border plants as can well be imagined.

WYNDHAM FITZHERBERT.

CARPET PLANTS FOR CHOICE BULBS.

A LARGE number of choice bulbs, both species and natural hybrids, are found in a wild state growing among short herbage or in association with other plants, and this companionship is of mutual advantage in various ways, chiefly in that it keeps the soil friable, renders it porous and maintains an equable temperature; and in gardening, where the conditions are altogether artificial, and with a climate that is characterised by excessive moisture in winter, the necessity of providing congenial conditions for choice bulbs is one that engages the attention of every intelligent cultivator. To strike the happy medium of soil temperature and moisture in winter, I know of no better system than carpeting the surface of the ground with low-growing plants, giving preference to those that are more or less active in growth during winter. These plants draw moisture from the soil, and this promotes aeration and porosity, thereby rendering it warmer and drier for the bulbs.

The ideal position for providing these conditions is found in the rock garden, where it is never difficult to find suitable plants to carpet the surface. Among these the various kinds of Sedums, all the varieties of Mossy Phlox and of Saxifragas: the Mossy, various silver and the common forms of Kabschia are most suitable. There is also the pretty annual Violet Cress (Ionopsidium acaule), which, if sown over the bulbs as soon as they are planted, will vegetate and clothe the soil with bright green rosettes all the winter, breaking into a sheet of delicate lavender lilac in early spring.

Among the best plants to associate with bulbs in borders, I have found the following of distinct merit (they are exceedingly ornamental as foliage subjects, and all are evergreen): Asarum europæum.—An old-world plant, with dark green, glossy foliage of kidney shape, reaching to a height of 6 inches, and succeeding best in half shade. Thymus lanuginosus.—A low-spreading Thyme of delicate fragrance, with hoary grey-green leafage. Tiarella cordifolia.—A spreading plant with pretty triangular marbled foliage; it produces in spring sheaves of fairy-like spikes of white flowers, from which the popular name of Foam Flower is derived. Festuca glauca.—A low Grass of vivid blue-grey colour. Geranium atlanticum.—This develops mounds of prettily-cut leafage on long footstalks. It spreads by means of rhizomes and is interesting, as its growth is completed during winter and spring, the plant being dormant in summer. It produces purple-violet flowers of a large size in April and May. Anemones Hepatica and angulosa, with the varieties of each, should have attention in all permanent planting; they are beautiful in foliage and extremely floriferous, succeeding best in a half-shady spot. Evergreen plants obtain precedence as carpet plants for bulbs, as their foliage is effective at the season the latter flower in, and they prevent the soil splashing upon them, which otherwise would mar their purity and shorten their period of beauty.

THOMAS SMITH.



FLOWERING SHOOTS OF SPIRÆA MILLEFOLIUM, A BEAUTIFUL BUT LITTLE-KNOWN HARDY SHRUB.

TREES AND SHRUBS.

SPIRÆA MILLEFOLIUM.

ALTHOUGH a large and varied genus, this Spiræa is very distinct from any other species; in fact, some botanists have described it under the name of Chamæbatia Millefolium. Of upright bushy habit, it attains a height of 4 feet to 5 feet. The leaves, which are 3 inches or more in length, resemble very much those of our common Milfoil or Yarrow (Achillea Millefolium). They are bipinnate and greyish green in colour. The white flowers, produced from mid-July onwards, half an inch in diameter, are closely packed in terminal inflorescences. Cuttings of the half-ripened growths taken off with a heel may be rooted in a slightly-heated propagating-frame during August. Seeds also form a ready means of increase. The behaviour of the plant with us this season suggests that the soil should not be too rich. Spiræa Millefolium is a Californian species, and although known as long ago as 1853, according to Nicholson's "Dictionary of Gardening," it was not introduced into this country until the year 1880.

A. O.

THE DOUBLE-FLOWERING AMERICAN CRAB APPLE.

(PYRUS CORONARIA FLORE-PLENO.)

THIS handsome variety blooms two or three weeks later than the majority of the Malus group of Pyrus, and on this account alone is worthy of consideration from those who are responsible for keeping a garden gay with flowering trees for as long a period as possible. Apart from this, however, it is well worth growing for the sake of its great decorative merit, for it commanded attention from the most unobservant person on account of the extraordinary size of its Apple-like blossoms. Semi-double in character, these flowers are usually about 2¼ inches across, while now and then one may be measured which is quite 3 inches. They are of a delicate shade of pink, and are borne in clusters similar to those of the ordinary Crab. The type is also effective, and when the fruit is mature it forms a noticeable object, for the small, round Apples are of a very bright shade of green. In common with other Crabs, the one under notice causes no trouble, except that it is likely to contract similar diseases to the Apple, and American blight sometimes requires attention.

BUPLEURUM FRUTICOSUM.

THIS is perhaps the only shrubby member of Umbelliferæ which may be grown out of doors, and even this is more suitable for wall culture than for open borders in any except the Southern and Western Counties of England and Ireland. It

is found in the neighbourhood of the Mediterranean, and forms a moderate-sized bush with rather thin branches, which are clothed with glaucous, oblong leaves 2 inches to 3 inches long and under an inch wide. The flowers are yellow in colour, and are borne in the characteristic umbels of the order. Each inflorescence is about 3 inches across, and terminates a shoot of the current year's growth. In ordinary seasons the blossoms are at their best towards the end of August or the beginning of September, but this year they are at least three weeks in advance of their usual time. The shrub thrives in loamy soil, and it may be expected to cover a space several yards in extent on a wall at least 12 feet high. This is one of a number of shrubs which, although rarely met with, are of considerable interest, and worth planting in gardens where out-of-the-way shrubs are encouraged.

CHOISYA TERNATA.

THOUGH this ornamental shrub is related to the common Rue, there are few points of similarity between the two plants, except in the structure of the flowers and the yellowish colour which permeates the roots and branches, the latter a peculiarity which is noticeable in many plants belonging to the Order Rutaceæ. Choisya ternata is an excellent evergreen for the open ground in the Southern Counties, while it is well worth a position on a wall in more Northern gardens, for its glossy, three-parted leaves are always pleasing, and its white, fragrant flowers, borne in good-sized inflorescences, are showy and produced freely. Under natural conditions it attains a height of 6 feet or 8 feet, with a like diameter, and with little attention to pruning forms a shapely bush. Unfortunately, it is somewhat prone to lose branches through no apparent cause, for a plant may look perfectly healthy one day, and on the next the leaves on a large branch will be found to be withered, which is a sure sign of the death of the branch. Cuttings root readily in summer, and a few plants grown on in pots form useful subjects for greenhouse decoration during early spring, while larger specimens in tubs are useful for standing on verandahs or for placing in corridors when in bloom. In the Southern Counties it may be used as an isolated specimen or in shrubberies. It is quite in keeping with the surroundings in an old-fashioned garden, and if an angle between two walls of the dwelling-house, and near a window, can be allotted to it, this shrub will yield the owner a beautiful supply of fragrant blooms during the month of May. It is one of the most beautiful of all our hardy shrubs, and should be more widely cultivated than it is at present. D.

THE TOWN GARDEN.

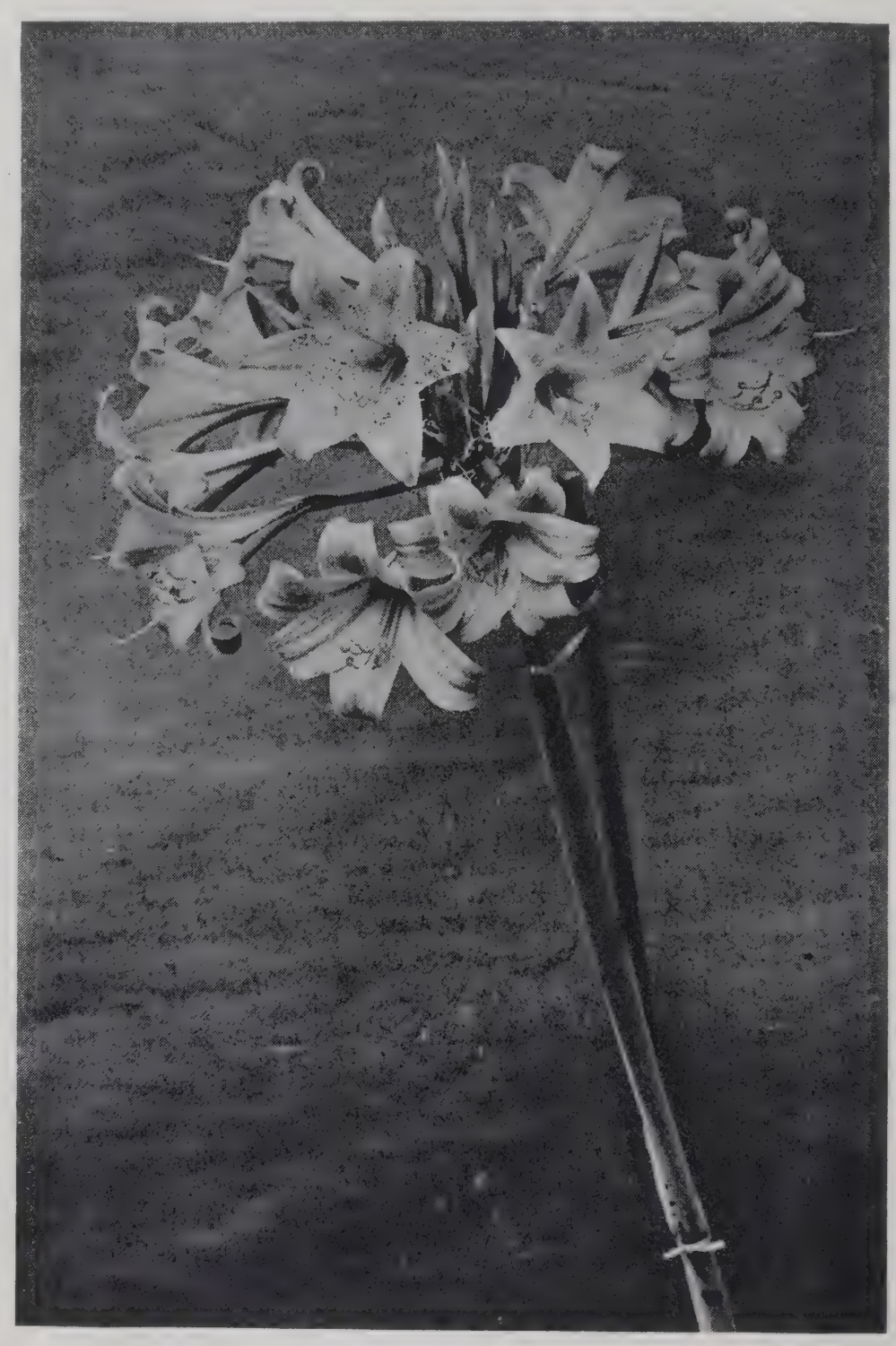
BEDDING LOBELIA.—The dwarf blue Lobelia is at once one of the most popular of the garden plants of summer and one of the most easy to cultivate; yet, despite these facts, the small grower—the amateur or beginner—is not infrequently handicapped in the matter of wintering this useful subject, the plants damping off in a sort of wholesale manner which has come to be regarded as more or less characteristic. It is, indeed, characteristic when a certain unsuitable method of treatment is followed, though quite the reverse when the more correct method is adopted. The wholesale failure and loss one has in mind is the outcome of allowing the plants to virtually exhaust themselves by flowering in the open beds, and possibly to continue there till a sharp frost has made its mark upon them before it is considered time to lift them. To make matters even worse, the plants are then lifted and transferred straight away to the greenhouse, where some warmth exists, and in such cases the end is not very far off. All of these represent

THE NEGATIVE ASPECT OF AFFAIRS, and are cited chiefly as instances of what not to do. One is rather inclined to regard one's failures in gardening as but a stepping-stone to success, and, rightly regarded, this is certainly true. To be absolutely so one must divine the cause of the failure, while to benefit thereby one must also be able to apply an immediate as well as an effective remedy. Quite naturally, such work is for the professional rather than for the lay mind, and it is here that the former can assist the latter.

WHAT TO DO.—Having seen the error of our ways, the remedy consists chiefly in adopting an opposite method, and instead of waiting for the plants to become exhausted by flowering or stricken by frost, the work of preparing for the wintering of such things must be done in advance. The essentials in the case of the Lobelia are cutting down the plants to about 1½ inches from the ground, pricking up the soil about them, adding a mulch of soil close to the tufts and, if needs be, sprinkling a little into them. Now give a rather generous watering from a fine-rosed can to settle the soil, and leave Nature to do the rest. Where only a small stock of plants is required, a dozen plants treated as above will usually suffice; that is to say, it is only necessary to treat quite a small proportion in this way for purposes of stock.

THE DIRECT RESULT OF THIS CUTTING BACK, mulching and watering is that the old stools quickly send out new root-fibres into the fresh soil, while, simultaneously, new leaf-growth appears all over the old stools. When this is seen, the cut-back clumps may be lifted at once, pulled into quite small portions and replanted rather thickly in very sandy soil in shallow boxes or pans. Hence in the course of a few weeks the operator will have created quite a new plant, and in place of an old, exhausted one, a smaller one exists with all the vitality and energy of youth. This is the plant that will winter safely in quite cool quarters, for the Lobelia is so hardy that it detests coddling, and this, too, is the plant that will grow apace through the winter and provide hosts of cuttings in due course and of the best possible kind. The method is so simple and so invariably successful that it is recommended with the utmost confidence to all who garden in a small way.

TUFTED PANSIES raised from cuttings should, with the cooler nights and dew and rain, be making abundant headway, and may be transplanted to borders preparatory to being placed in their permanent positions. The object of this temporary isolation is to produce sturdy, well-rooted examples. It is quite possible that some of the more forward examples will be still pushing flower-buds, and, if so, the heart growth should be pinched out to suppress it for the time being. Seedling Pansies of the large-flowered or fancy strains may be similarly treated in the matter of transplanting, though it is only rarely that any pinching will be needed for these. S. N. N.



THE RARE AMARYLLIS PARKERI. (*See page* 462.)

GARDENING FOR BEGINNERS.

PROPAGATING GLOXINIAS BY LEAVES.

THE Gloxinia, like many other beautiful plants with fleshy leaves, may be increased quite readily from leaf-cuttings, and this subject is becoming more popular than ever with amateur cultivators. For years the Gloxinia was regarded by many as a subject that could only be well done by those who possessed a stove-house; but such an erroneous idea has been exploded, and enthusiatic devotees of this plant find that it can be grown very successfully in just an ordinary greenhouse where a comfortable temperature can be maintained. The prospect of being able to increase the best plants has become quite a fascination with some of the more ardent admirers of the Gloxinia, and as the work of propagation by leaf-cuttings is usually done in the early autumn, the present period affords a most excellent opportunity for beginning this interesting work. This may be commenced as soon as the leaves are fully matured, and the older leaves are almost invariably selected for the purpose. As the reader will readily imagine, an ample surface space will be required for the leaves to be laid out and pegged down in a proper manner. For this reason either pans or boxes should be utilised, as it is customary to deal with the whole leaf. Preference is usually given to the use of a compost of sandy peat and leaf-mould, and if this be well mixed it will answer excellently.

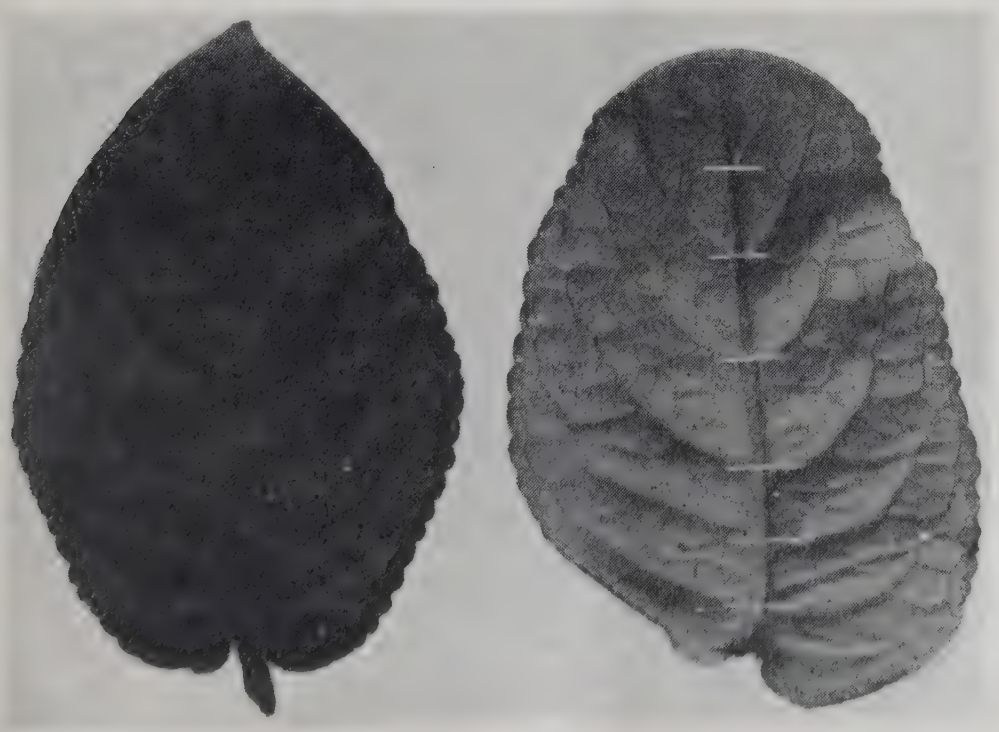
I will first deal with the leaf as a whole; and that the beginner may appreciate in simple manner how to proceed, he should understand that the whole leaf of the Gloxinia is laid with the under side downwards, so that this rests on the surface soil. Before adjusting the leaf in position, incisions should be made at regular intervals along the midrib. The incisions should be made with a sharp knife, the midrib being cut through, or half through, at intervals of about 1 inch, more or less, either at the junction of each pair of ribs or alternately right along the whole leaf, as shown on the right leaf of Fig. 1. In consequence of this treatment of the leaf, little bulbs should form at each incision; in other words, a callus will evolve, and in due course tiny plants will develop, which when nicely rooted should be potted up individually into small pots. These little bulbs, or corms, will evolve before the leaf decays. The temperature in which the propagation of Gloxinias by leaf-cuttings is carried out should be any figure between 60° and 75°. This is a wide margin, but it only goes to prove how very accommodating this subject is. I should have mentioned earlier that no foliage will be developed on the little bulbs reared in this way; it is not until they are potted up in the spring and grown on in the ordinary way that they will be represented as young growing plants.



2.—THE CUT LEAVES ARE KEPT IN POSITION BY PLACING PEBBLES UPON THEM.

Some growers prefer to raise a batch of a given plant by a rather more drastic method. A leaf is cut into triangular pieces, one end, or point, consisting of a portion of the fleshy midrib already described, and these pieces are then inserted in the sandy peat compost about half an inch deep. In due course they will callus and develop tiny bulbs. Still another method is that of cutting a Gloxinia leaf in halves and inserting the leaf-stalk of the lower half in prepared soil in pots. Such pieces will root readily enough if the pots are stood on a moist bottom on the bench of a warm greenhouse. Instead of pegging down the leaves, the same object may be achieved by placing two or three small pebbles thereon to keep them in position, as portrayed in Fig. 2. The soil should be made moist throughout in the first instance, and the surface of sand maintained in a moist condition by damping the ashes, &c., on which the pans and boxes should stand during the rooting process. Shade the leaves from the direct rays of the sun.

D. B. CRANE.



1.—GLOXINIA LEAVES SUITABLE FOR PROPAGATION. THE LEAF ON THE RIGHT HAS BEEN CUT THROUGH ALONG THE MIDRIB.

THE PROPAGATION OF BEDDING PLANTS.

MANY cultivators are reluctant to take cuttings from their border plants, on account of marring their beauty by lessening the number of flowers. When the propagation of the cuttings is unduly delayed, there is much risk of loss through the winter months, because the cuttings are so badly rooted. In nearly every case well-rooted cuttings will withstand a moist soil better than those with few roots, and as it is not always possible to keep the soil just in the right condition as regards moisture, it is important to root the cuttings in good time and so have strong plants.

Zonal Pelargoniums.—These and similar cuttings must be inserted in pots or boxes filled with a sandy compost and kept in a warm, sunny position, but safe from frost.

Heliotrope, Lobelia and Ageratum.—These cuttings should be inserted in a lighter compost with sand on the surface, and kept in their pots in a close frame until roots form.

Mesembryanthemums and Succulent Plants.—The cuttings do best in a warm, dry position, not necessarily in a close atmosphere, but not exposed to showers of rain.

Fuchsias, Coleuses, Iresines, &c.—Cuttings of these plants must be afforded rather more heat than any of those named above. If possible, they should be placed in a pit, or low house, where the pipes can be warmed in very cold weather. A light compost, to which plenty of sand has been added, is the most suitable. When sufficiently rooted, all cuttings must be placed where they will have the maximum amount of light and adequate ventilation during the dull days of winter.

There are, of course, many other kinds of cuttings that must be rooted, but the few named above and the treatment suitable for them will serve as a general guide for beginners.

SHAMROCK.

THE GREENHOUSE.

CHRYSANTHEMUMS.

LATE TOP-DRESSINGS.—The first top-dressing is usually given at the end of July or early in August. If there is room for more compost, some rich soil and manure, mixed, must be put on in September. The more healthy roots a plant possesses, the greater the bulk of food it will require. Substantial top-dressings mean broader and longer petals, and, of course, bigger blooms. For this late top-dressing procure some old, fibrous turf (a great quantity will not be required) and pull it to pieces; then place it in a quarter-inch-mesh sieve and so get rid of all the finer portion. The fibrous part should then be mixed with an equal quantity of rotted manure or horse manure which has been turned over several times in a cool, dry shed, so as to get rid of the rank gases and prevent any burning by over-heating. Spread out the mixed compost and pour strong liquid manure on it. After the lapse of a few hours, turn over the mixture and pour on more liquid manure. The compost will then be fit for use, and it must be pressed down firmly on the soil in the pot. If all water be applied through a rosed watering-can for several days, the new soil will soon become fixed, when water may be given again in the usual way. Fresh soil remains moist longer than that which is well permeated by roots, so that the wise cultivator will not rely upon the appearance of the soil at all, but rap each pot so as to be quite sure that every plant receives water and stimulants when they are really needed.

SPECIMEN PLANTS.—These, whether grown for conservatory decoration or exhibition, must receive very careful attention at this stage of their growth, so as to maintain all leaves in a healthy condition. Handsome leaves set off to great advantage the blooms on the plant, and when the basal leaves are lost, or in a bad state, they detract from the good appearance of blooms of the highest merit. In order to preserve the leaves in a healthy state, allow the plants sufficient space, so that plenty of air and the maximum amount of light will reach all parts. Great care must be exercised in the matter of watering and feeding. Nitrate of soda, given at the rate of one teaspoonful to a gallon of water, once only, will soon have a good effect on leaves that are somewhat yellow; but several doses would cause the shoots to grow too luxuriantly, and also unduly lengthen the flower-stems. Some specimen plants that were stopped rather late in the season will not show their flower-buds much before the end of September. The resultant flowers will not be large ones, but they may be fairly numerous and of good colour. The shoots of such plants are not as well ripened as those of earlier-stopped specimens, and so less feeding must be done and a light position provided for them, so that there will be no undue drawing up of shoots and flowers.

LATE-FLOWERING VARIETIES.—The plants of these are generally left out as long as possible, but not allowed to remain exposed to early frosts. Even well-ripened shoots get drawn up a little when the plants are placed under glass, and as the late-flowering varieties are not as well ripened, full exposure to the open for as long a time as possible is essential. The feeding of the plants must be attended to as regularly as if the blooms were required for exhibition. Some provision should be made for putting the plants of late varieties in open quarters directly some of the exhibition, or November-flowering sorts, are housed, if they have not occupied such favourable places during the summer months. Although the summer training may have been well attended to, it would be wise to thoroughly examine every plant now, and to tie out the branches so that they will be exposed to the sun's rays and air. AVON.

NEW PLANTS.

DAHLIA MAURICE RIVOIRE (Collarette).—One of the first of the new race to receive recognition. The outer florets are rich crimson, the smaller and inner florets being nearly pure white. From Hobbies, Limited, Dereham.

Dahlia Miss Stredwick (Cactus).—An exhibition variety of the largest size. The colour is rich rose with cerise, the incurving florets of exceptional length.

Dahlia Richard Box (Cactus).—Also of the exhibition order and of large size. The colour is yellow, toning down in the more mature flowers to the palest primrose. It is good and distinct. These were from Messrs. James Stredwick and Sons, St. Leonards.

Carnation White Wonder.—We have here a good type of White Perfection. The recommendation which some months ago preceded it from America would go to show that it is a White Perfection with all the bad points and weaknesses of that well-known variety obliterated. We trust it may be so. Exhibited by Messrs. Allwood Brothers, Wivelsfield Nursery, Hayward's Heath.

Dahlia Union Jack (Single).—The florets are broadly bordered scarlet, and have a central band of white. From Mr. Charles Turner, Slough.

Amaryllis Parkeri.—A strikingly beautiful and handsome variety whose flower-crowned stem is fully 3 feet in height. There were nearly thirty flowers and buds, the pedicels inclining from sub-erect to horizontal and displaying the fragrant rose-coloured flowers to advantage. The beauty of the flower is enhanced by the orange yellow colouring which is seen at the base, both internally and externally. The plant shown is practically synonymous with Amaryllis Belladonna Kew variety, but the flowers of the former possess more of the lovely orange yellow shade. In this respect it may be regarded as an improved Kew variety. Our illustration on page 460 shows this particularly interesting variety flowering for the first time in Gunnersbury House Gardens, where the true Belladonna Lily is flowering exceptionally well this year. A great difference between the type and variety may be seen in the flower-heads. There are less flowers in the type and all of them face one way, whereas the flowers of the variety are borne in a large umbel about 16 inches across. The variety is said to be a bigeneric hybrid between Brunsvigia Josephinæ, a many-flowered bulbous plant from the Cape of Good Hope, and Amaryllis Belladonna. The bulbs of the new-comer were received by Mr. James Hudson, V.M.H., about six years ago from an amateur friend in New Zealand, but it was not until the present summer that they were persuaded to flower. From Mr. Leopold de Rothschild, Gunnersbury House, Acton.

Amaryllis Parkeri alba.—There is the same large head of flowers similarly disposed, also the rich orange tone at the base of the tube, as in the foregoing. The arrangement of the flowers is very suggestive of a pronounced, glorified white-flowered Clivia. It is very handsome. Exhibited by Mr. A. Worsley, Isleworth.

Brunsdonna Sanderæ alba.—This is also a reputed hybrid between Brunsvigia Josephinæ and Amaryllis Belladonna, though the evidence of the flowers alone suggests but little of this. In effect it would appear to be a good white-flowered Belladonna Lily, differing but slightly from a white-flowered form sent by Mr. Elwes. The flowers are slightly suffused orange at their bases, both internally and externally, and less erectly disposed than in the white Parkeri variety just noted. Exhibited by Messrs. Sander and Sons, St. Albans.

All the foregoing were shown at Vincent Square on the 12th inst., and each received an award of merit. The following were also shown on the same date:

Sophro-Lælio-Cattleya Jeanette.—The flower of this lovely Sophronitis cross is of an intense brilliant orange crimson, the lip having a golden base. Parentage: Lælio-Cattleya Martinettii × Sophronitis grandiflora. A magnificent variety. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

NEW FRUIT.

Apple Charles Eyre.—A good-sized culinary Apple of delightful flavour that commends it also as a dessert fruit. In colour it is pale green or yellow when ripe; the flesh is firm, white and crisp, and the eye is deeply set. It is a solid Apple, the average weight of the fruits shown being about 13oz. For illustration see page 456 This variety was thought to be a secondary cross from Mr. Charles Ross' crosses between Cox's Orange Pippin and Peasgood's Nonsuch. The alleged parents were given as Rival and Houblon, but this was not accepted by the fruit committee. Shown by Mr. W. Pope, Welford Gardens. This Apple received an award of merit.

THE EDITOR'S TABLE.

KŒLREUTERIA PANICULATA FROM KENT.

Messrs. George Bunyard and Co., Maidstone, Kent, send some very fine flowering sprays of this interesting but little-known tree. Owing, no doubt, to the hot, dry weather, this has flowered more freely than usual in many localities, especially where the situation is sheltered. Not the least interesting feature is the pale brown colour of the stems. The leaves are large, pinnate and deep green in colour, while the large, loose panicles are composed of curiously-shaped, small yellow and orange flowers. We have never seen finer flower-sprays than those sent by Messrs. Bunyard.

LAGERSTRŒMIA INDICA FROM SUSSEX.

Mr. Charles Hack, The Gardens, Patching, Worthing, Sussex, sends flowers of this little-known stove or greenhouse plant, which, in the genial climate of Worthing, is thriving outdoors. Although it was introduced to this country from China nearly a century ago, this shrub is seldom found in our gardens to-day. Mr. Hack writes: "I enclose a spray of flowers of Lagerströmia indica for your table. The plant is in flower in the gardens of Mrs. L. C. Joad at Patching, near Worthing. It is growing out of doors on a wall facing south, and was planted four years ago. It is 10½ feet high and 4 feet wide, and has forty-two sprays of flowers at the time of writing. It is covered up in winter by hanging a mat in front of it. I thought it might interest some of your readers, as it is

not a hardy plant, and I think it unusual to find it in flower out of doors. Perhaps the hot weather we have had has induced it to flower so freely. I would like to know if others have it in flower under the same conditions."

RIBES SPECIOSUM AND CALCEOLARIA GOLDEN GLORY FROM EXETER.

Messrs. Robert Veitch and Sons, Royal Nurseries, Exeter, send shoots of the Fuchsia-flowered Gooseberry, Ribes speciosum. This is one of the most interesting and ornamental members of the Ribes family, the scarlet, pendulous, Fuchsia-like flowers making a pleasing display in late spring. The slender stems and red fruits, of which there were a number on the shoots sent, are covered with soft, glandulous hairs. This shrub is a native of California, and was introduced to this country in 1829. Messrs. Veitch also send flowers of their beautiful hardy Calceolaria Golden Glory, which has this year been highly successful in many gardens. About this Messrs. Veitch write: "This popular hardy hybrid Calceolaria has this season shown its value in a remarkable degree, for the plants, which have already yielded a fine crop of seed, are again in bloom and making a fine show in the open ground at our Exeter nursery. We enclose a few sprays to show how sturdy and fresh they are." A coloured plate of this Calceolaria appeared in THE GARDEN dated December 19, 1908.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

THE GREENHOUSE.

Offsets on tubers of Arum Lilies (*L. C.*).—In repotting Arum Lilies that have been dried off, the small offsets should be removed from the main tuber, otherwise they will take a good deal of nourishment therefrom. If desired to increase your stock, these offsets may be put three or more in a pot, and in this way they will grow freely and soon form flowering plants. In the case of the small-growing Arum Lily known as Little Gem, this removal of the offsets is even more necessary than in the common kind, for if it is not done, the plants will simply become a mass of weak shoots that have not sufficient vigour to flower.

Pelargonium sport (*W. C.*). — Unfortunately, the petals had all dropped, so that we are unable to say anything of the shape of the flower and other particulars. The colouring of the petals appears to us much in the way of the variety Lady Warwick; that is to say, a decided edging of magenta rose, with a slight suffusion of the same tint throughout the petals. It is, however, probable that yours has rather more colour than the variety referred to; but, still, a good deal depends upon the conditions under which the flowers are grown. In the case of florists' flowers, such as the Geranium, the better plan is to submit them to the opinion of some specialist, and we should advise you to send a specimen securely packed and with the flowers gummed to prevent the petals dropping.

Soil *versus* fibre for bulbs (*W. W. R.*).—The soil is not only the more natural, but is vastly superior in every way, both as regards the success of the moment and the utility of the bulbs when the flowering season is past. The fibre method is in a variety of circumstances a convenient and useful way, and is specially adapted for town-dwellers and amateurs who experience difficulty in obtaining suitable soil mixtures. If good sandy loam, leaf-mould and a little very old cow-manure and some sharp sand are available, you could have nothing better.

The largest Hippeastrums (*E. R. R.*).—As the different Hippeastrums are increased by seeds, and the principal raisers (of whom may be mentioned, among amateurs, Lieutenant-Colonel Sir G. L. Holford of Westonbirt, and of dealers, Messrs. Veitch of Chelsea and Messrs. R. P. Ker and Sons of Liverpool) name their seedlings as they flower, it follows that each raiser has his own set of names. The largest flower that we can recall was Dreadnought, shown by Messrs. Ker at the Temple Show two or three years ago. With regard to the price of the bulbs, everything depends on the quality of the flower, its distinctness from those in general cultivation, or other particulars, so that no hard-and-fast line can be laid down.

FRUIT GARDEN.

Currant and Gooseberry bushes (*R. R.*).—Both the Gooseberry and Currant bear their fruit next year on the young shoots which are the growth of this year. We do not think there would be any advantage gained by summer pruning your trees at the present time, but let them go until the time for winter pruning comes round in the early months of next year. The way to prune a Gooseberry tree is to leave a sufficient number of shoots of last year's growth so that they stand apart 9 inches (meaning that each branch is separated from the other by 9 inches). These having been secured, cut away down to their base all the superfluous shoots, and finally shorten the shoots which are left to 10 inches in length by cutting off their tops. Currant bushes should be served in the same way.

Nut trees dropping their fruit (*Amos*).—The great heat and long-continued drought are no doubt responsible for the Nuts dropping, also for the attack of weevils. You cannot spray the trees with insecticides to kill the weevils while the fruit hangs on, as the spray would be poisonous. Nuts are ripening early this year, and yours should be ripe enough to pick soon. As soon as they are, let them be gathered, taking care no weevils are gathered with the fruit. Have the leaves of the tree burnt as they fall, and spray the trees in November with caustic alkali wash, and again in spring just as they are about to start into growth.

Grapes unsatisfactory (*F. B.*).—Your Vine foliage is suffering from an attack of red spider, and the Grapes also. The latter are also suffering from an attack of mildew. The damage has gone so far that we fear the foliage and fruit are beyond recovery. However, if there is any green and live foliage left on the Vines, the Grapes may ripen fairly well by adopting the following treatment: Dredge the Vines over thickly with flowers of sulphur (Grapes included), let the sulphur remain on for forty-eight hours, shading the vinery in the meantime. At the end of this time syringe off the sulphur, using clear water for the purpose. Syringe the Vines and Grapes every morning from 7 to 7.30 a.m., and in the evening from 4.30 to 5 p.m. for at least a month, using rain-water for preference. Ventilate freely during the day, leaving some air also through the night on both the bottom and top ventilators. Shade the Vines slightly in the middle of the day against hot sun.

MISCELLANEOUS.

Names of plants.—*M. J.*—Aster acris.——*S. H.*—We believe the Rose is Rivers' Musk.——*L. G. T. C.*—Funkia subcordata.——*Mrs. C.*—Saponaria officinalis flore pleno, Linaria purpurea and Begonia semperflorens variety.——*M. M. C.*—1, Erythræa Centaurius; 2, Epilobium hirsutum; 3, Pilicaria dysenterica; 4, Phalaris arundinacea.——*T. E. Woodhouse.*—Anthemis tinctoria, Senecio tanguticus and seedling Chrysanthemum (cannot name).——*E. V. B.*—Euonymus europæus.——*Constant Reader.*—Chlorophytum elatum. Yes, it does flower.

Names of fruit.—*Miss Holmes.*—1, Not recognised; 2, Waltham Abbey Seedling; 3, Warner's King; 4, Cat's-head. —— *M. Bignold.* — A splendid fruit of Washington. —— *John Wilson.* — 1, 2 and 3, Warner's King; 4, Round Winter Nonsuch; 5, Bramley's Seedling; 6 and 10, Stirling Castle; 7, Lord Derby; 8, Lord Suffield; 9, Stoke Pippin; 11, Tower of Glamis. —— *M. J.* — 1, 3 and 4, Lane's Prince Albert; 2, Cellini Pippin; 5, King of the Pippins.—— *S. H.*—A, Beurré de Capiaumont; B, Hereford Beefing, a cooking variety; C, rotten when received; D, John Apple, cooking variety; E, Bess Pool, cooking variety; F, Blenheim Orange, dessert; G, Easter Beurré, dessert; H, Duchess of Gloucester, dessert.——*G. Brown.*—1, Worcester Pearmain; 2, Blanders.——*Chipp.*—Pear Clapp's Favourite and Apple Hoary Morning.——*A. P., Surrey.*—Apples: 1, Belle Dubois; 2, not recognised; 3, Pennington's Seedling; 4, Tower of Glamis; 5, Lemon Pippin; 6, Hawthornden; 7, The Queen; 8, Lane's Prince Albert; 9, Maltster.—— *T. J., Wareham.*—Apples: 1, Lord Suffield; 2, New Hawthornden; 4, Cellini Pippin.——*D. Mc.*—Apples: 1 and 4, Oslin; 2, Lady's Finger; 3, Jolly Beggar; 5, Pearson's Plate; 6, Mank's Codlin; 7, Cardinal; 8, Round Winter Nonsuch. The Plum is Oullin's Golden Gage. —— *S. E. L.*—The Apple is a fine fruit of Ribston Pippin. —— *C. H., Elmdon.*—King of the Pippins. —— *Apples.*—1, Lamb Abbey Pearmain; 2, Worcester Pearmain; 3, New Hawthornden; 4, Cox's Orange Pippin; 5 and 10, King of the Pippins; 6, Emperor Alexander; 7, Old Hawthornden; 8, Stoke Pippin; 9, Sops o' Wine.——*W. E. P.*—1, Peasgood's Nonsuch; 2, Yorkshire Beauty; 3, King of Tompkin's County. —— *T. C., Linlithgow.*—Apples: 1, Tibbett's Pearmain; 2, Lady Henniker; 3, Beauty of Hants; 4, Cellini Pippin; 5, Keswick Codlin; 6, Lord Suffield.

SOCIETIES.

NATIONAL ROSE SOCIETY.

THE autumn show of the above society was held on Thursday, September 14, at the Royal Horticultural Hall, Vincent Square, Westminster. In spite of the unfavourable reports that were current regarding the prospects of the show, the exhibition proved to be a great success, far excelling the most sanguine expectations. Mr. E. Mawley, the able secretary, was delighted with the display of blooms, and spoke of the exhibition as the "triumph of the Rose."

NURSERYMEN'S CLASSES.

Thirty-six blooms, distinct varieties: There were five excellent exhibits in this class, the first prize going to Messrs. Hugh Dickson, Royal Nurseries, Belfast. Some of the blooms were a little off colour; but among the best shown were Mme. Joseph Courbet, Charles J. Grahame, Hugh Dickson and Leslie Holland. Second, Messrs. Cocker, Aberdeen, with a uniform lot, but beaten easily in the size of the flowers; third, Messrs. A. Dickson and Sons, Newtownards, County Down, with bright and fresh-looking blooms; fourth, Messrs. Adam and Craigmile, Rubislaw, Aberdeen. The last-named exhibitors showed a perfect bloom of the new golden yellow Rayon d'Or.

Tea and Noisette, eighteen varieties: Mr. George Prince, Oxford, was the winner in this class, followed by Messrs. Jefferies and Son, Cirencester, and Mr. H. Drew, Longworth. Among the best Roses in this class were Maréchal Niel, Mrs. Edward Mawley, White Maman Cochet and Mme. Jules Gravereaux.

Twelve varieties, seven blooms of each: There were only two competitors, the first place being won by Messrs. Hugh Dickson, Royal Nurseries, Belfast, with an excellent collection comprising Countess of Shaftesbury, Lyon Rose, Ulrich Brunner and Miss Cynthia Forde. Second, Messrs. Cocker, Aberdeen, with an admirable selection of exhibition blooms.

Messrs. Hugh Dickson were also the winners for twelve blooms of any Rose to be shown in a single vase. The variety shown was Hugh Dickson. The winners were certainly most successful exhibitors at this exhibition; indeed, it may truly be regarded as a grand finale to a successful season. Second, Messrs. W. Crisp and Sons Colchester; third, Messrs. H. Lane and Son, Berkhamsted.

Twenty-four distinct varieties of decorative Roses: First, Mr. J. Mattock, Rose Nurseries, Headington, Oxford, with a beautifully-arranged group; second, Mr. John Pigg, Royston, Herts.

Twelve varieties of decorative Roses: First, Messrs. W. Spooner and Son, Arthur Bridge, Woking, with a very prim and neatly-arranged collection of blooms; second, Mr. Frank Woollard, 53, Lewes Road, Brighton.

Twelve varieties, arranged in Bamboo stands: Mr. J. Mattock, Headington, Oxford, was the winner in this class with an admirable selection of Roses, the best being Theresa Bevan, Marie van Houtte and Irish Elegance; second, Mr. Walter Bentley, Belgrave, Leicester; third, Mr. H. Drew, Longworth.

Twelve varieties of Dwarf Polyantha or Pompon Roses; Messrs. W. Spooner and Sons, Woking, were first in this class, closely followed by Mr. G. Prince, Oxford. The variety Orleans Rose was shown in grand form. Third, Messrs. S. Bide and Son, Farnham.

Group of Roses to be arranged on the floor in a space not exceeding 150 square feet: The first prize and gold medal were won after a keen contest by Messrs. Paul and Son, The Old Nurseries, Cheshunt, Herts. The quality of the Roses shown was really exceptional, considering the season. We observed some exquisite vases of Mme. Melanie Soupert, Rayon d'Or and Lyon Rose. The background was occupied by plants of Bamboos. Second, Messrs. Hobbies, Limited, Dereham, Norfolk. The group comprised many of the leading varieties in cultivation. The background and centre were occupied with rambling Roses grown as standards. These trees were full of bloom and formed a most picturesque scene. Silver-gilt medal.

Representative group of cut Roses: In this class were seen the most magnificent displays of Roses in the whole exhibition. Messrs. W. and J. Brown, Peterborough, were the winners of the first prize and gold medal, and their large group called for general admiration from the many visitors to the show. Second, Messrs. Gunn and Sons, Olton. The arrangement in this group left nothing to be desired. In the background were large over-arching sprays of rambling Roses, and in the foreground the Lyon Rose was shown to great advantage. Silver-gilt medal. Third, Messrs. J. Jefferies, Cirencester, with a highly

creditable display, in which Bessie Brown, Dean Hole, Lyon Rose and White Maman Cochet were the pick of the varieties. Silver medal. An extra prize in this class was awarded to Messrs. A. Dickson and Sons, Newtownards, for a really brilliant display, in which Duchess of Wellington, General Macarthur and Lady Hillingdon were among the best.

Heps of nine species or varieties with foliage: This interesting class was not so well contested as in former years. There were only two competitors, the first prize going to Messrs. Paul and Son, The Old Nurseries, Cheshunt, for splendid fruiting sprays of Rosa rugosa alba, R. pimpinellifolia and others; second, Mr. George Prince. His best vase was that of Rosa rubifolia, carrying a mass of scarlet berries.

Representative group of cut Roses, space not exceeding 60 square feet: Some admirable Roses were to be seen in this prominent class. Messrs. G. Jackman and Son, Woking, were the first prize winners with a large, comprehensive collection, followed by Mr. F. M. Bradley, Peterborough. Both groups were noteworthy for the splendid arrangement. Messrs. B. Cant and Sons, Colchester, and R. Harkness, Hitchin, were runners-up in this well-contested class.

Thirty-six varieties, three trusses of each: Mr. J. Mattock was first with an admirable selection of leading varieties; second, Mr. G. Prince, with a highly attractive group, likewise well arranged; third, Mr. Rowland Adams, Bath.

Bowl of China Roses arranged with Rose foliage only: This proved to be a well-contested class, the prizes falling to Messrs. Hugh Dickson, Mr. E. J. Hicks and Messrs. S. Bide and Son respectively. The charming variety Comtesse du Cayla was well represented in this class.

AMATEURS' CLASSES.

The amateurs' class for a bowl of cut Roses was won by Mrs. Tisdall, Woodford Green, followed by Mr. J Walter Smith, Watford, and Mrs. Davis, Burgess Hill. The variety shown in the first prize bowl was Mrs. A. Tate, Irish Elegance being second.

Eighteen blooms, distinct: The first prize went to Mr. E. M. Eversfield. The best blooms were White Maman Cochet, Souv. de S. A. Prince and Lady Ashtown. Second, Mr. Conway Jones, Hucclecote; third, the Rev. J. H. Pemberton, Romford.

Twelve varieties: Mr. G. Speight, Market Harborough, was the winner in this class. This stand contained a grand specimen of H. Vernet, which secured a silver medal as the best Rose other than Hybrid Tea, Tea or Noisette shown by an amateur. Second, Mr. W. O. Times, Hitchin.

The class for nine blooms, open to growers of fewer than 1,000 plants, was won by Mr. M. Whittle, Belgrave, Leicester, followed by Mr. W. Upton, also of Leicester, and Mr. E. B. Lehmann of Crawley.

Mr. Conway Jones was the winner for twelve blooms of Tea and Noisettes, and Mr. E. M. Eversfield of Horsham was a good second.

As in former years, the dinner-tables decorated with cut Roses formed one of the most pleasing features of the exhibition. A number of tables decorated in a most beautiful manner were to be seen, and the judges had no easy task in making awards. The first prize was won by Mrs. G. Hammond, Burgess Hill, followed by Mrs. Tisdall, Woodford Green, and Miss J. Langton, Hendon.

A lovely bowl of Roses from Mrs. Courtney Page, Enfield, gained the premier award. Mrs. Tisdall and Mrs. G. Hammond were respectively second and third in this class

ADDITIONAL CLASSES.

Owing to the unfavourable season for Roses, the following classes were added to the society's schedule at the President's suggestion:

Nine baskets of cut Roses: The best nine baskets were shown by Messrs. Hugh Dickson, Belfast. The two single varieties Irish Elegance and Simplicity were greatly admired. Second, Mr. J. Mattock, Headington, Oxford. His best baskets were Lady Ashtown, G. C. Waud and Souvenir de Pierre Notting. Third, Messrs. Paul and Son, Cheshunt.

Five baskets of cut Roses: First, Messrs. W. Spooner and Sons, Woking. Their basket of Lyon Rose came in for general admiration. Second, Mr. H. Drew, Longworth; third, Mr. J. Pigg, Royston, Herts.

Nine varieties in vases: Messrs. Hugh Dickson were first, showing Mrs. Aaron Ward and Betty in grand form. Second, Mr. J. Mattock, Headington, Oxford; third, W. Bentley, Leicester.

Five varieties, shown in vases: First, Mr. H. Drew, Longworth; second, Messrs. J. Burrell and Co., Cambridge; third, Mr. C. Turner, Slough. There were ten competitors in this class.

The following additional classes were open to amateurs only:

Three baskets of cut Roses: The Rev. J. H. Pemberton, Romford, was first in this class. The three baskets shown were of the varieties Florence Pemberton, Earl of Warwick and Ecarlate. The blooms were very bright and fresh, and tastefully arranged. Second, Mrs. H. Balfour, Oxford.

The Rev. J. H. Pemberton was likewise first for seven varieties shown in vases, his vase of Lady Ashtown being greatly admired. Second, Mr. H. R. Darlington, Potter's Bar; third, Mr. Conway Jones, Hucclecote, Gloucestershire.

BEST BLOOMS.

Nurserymen.—Hybrid Perpetual, Gloire de C. Guinoisseau; Hybrid Tea, Earl of Warwick, both shown by Messrs. Cocker and Sons, Aberdeen; and Tea, Molly Sharman Crawford, Messrs. Adam and Craigmile, Aberdeen.

Amateurs.—Hybrid Perpetual, H. Vernet, Mr. G. Speight, Market Harborough; Hybrid Tea, Earl of Warwick, Mr. E. M. Eversfield, Horsham; Tea, Mme. C. Soupert, Mr. M. Whittle, Leicester.

NEW SEEDLING ROSE.

Although a number of new Roses were shown, only one received an award, viz.:

Mrs. Muir Mackean.—A handsome variety belonging to the Hybrid Tea section. It is a self-coloured crimson, of a deeper shade in the bud. In form and substance the flowers leave nothing to be desired. A silver-gilt medal was awarded to this novelty, which was shown by Messrs. S. McGredy and Son, Portadown, Ireland

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

THE annual autumn show of this society was held in the Waverley Market, Edinburgh, on September 13 and 14. The entries were considerably more numerous than those of last year, the increase in these being upwards of two hundred, while the quality of the exhibits was of a very high order. The competitive sections were very well contested, and the quantity and quality of the fruit shown were unusually noticeable. The nurserymen's exhibits, as usual, added greatly to the interest and value of this the leading Scottish show of the season. It was feared that the large show of the Glasgow and West of Scotland Horticultural Society which was held last week in Glasgow, and which was the cause of the postponement of this one, might have affected adversely the Waverley Market exhibition, but this was not the case in any way.

One of the leading prizes offered is that for a table of dessert fruit 10 feet by 4½ feet decorated with plants in pots not exceeding 5 inches and (or) cut flowers, Orchids excluded, and (or) foliage, not more than sixteen dishes of fruit, selected from the list in the schedule. In this class the entry was satisfactory, and the first prize for fruit was awarded to Mr. J. H. Goodacre, Elvaston, for a very fine table of fruit of superb quality. The second fell to Mr. William Galloway, Gosford; and the third to Mr. G. Mackinlay, Wrest Park. The first for decoration in this class went to Mr. Galloway; second, Mr. Goodacre; third, Mr. Mackinlay. For the collection of twelve dishes of fruit, not more than two of each of the kinds stated in the schedule, Mr. J. H. Goodacre was also first. For twelve dishes grown in an orchard-house, the first prize went to Mr. Goodacre also, Mr. G. Mackinlay coming second.

One of the leading classes in the show, and one which always causes keen interest, was that for the Scottish Challenge Trophy for Grapes, a cup value 50 guineas, to be won three times, with £6 in cash and a gold badge, the exhibit to be eight bunches, not more than two of any one variety. The coveted award fell to Mr. James Dixon, gardener to Lord Rowallan, Rowallan, Kilmaurs, who secured it last year. He scored 58½ points against 54 gained by Mr. Goodacre, who was awarded the second prize. Mrs. Gordon, Monreith, was third with 50; and Mr. J. Beisant fourth with 44. The next important Grape class was that for four bunches, for which exhibitors in the trophy class could not compete. The first prize went to Mr. D. Kidd, Carberry Tower; second, Mr. W. G. Pirie; third, Mr. J. Middleton. The other Grape classes were generally of superb quality, and the whole display reflected high credit on the exhibitors. Other leading Grape winners were Mr. W. J. Buchanan, Mr. J. H. Goodacre, Mr. F. M. Urquhart, Mr. James Duff, Mr. James Beisant, Mr. D. Kidd, Mr. J. Dixon, Mr. J. Middleton and Mr. James Wann.

In the other fruit classes Apples were very prominent, and the display of these was of wonderful quality. For the collection of twelve varieties of Apples the first and second prizes went respectively to Mr. T. Lee and Mr. R. G. Sinclair, and for a similar class for fruit grown in Scotland the first prize went to Mr. T. Duff, Threave, who was followed by Mr. R. G. Sinclair. The other Apple classes are too numerous to detail. Melons, Figs, Peaches, Nectarines and other fruits of this kind were extremely well shown, as were also the Pear classes. For the collection of twelve varieties of Pears, the first prize taker was Mr. R. M. Whiting; second, Mr. W. Galloway. For a similar collection, Scottish grown, Mr. W. Galloway was first; second, Mr. R. G. Sinclair. Mr. J. H. Goodacre was first for both Melon classes, also for six Peaches and six Nectarines. Mr. B. Ness, Oxenfoord, was first for twelve Apricots. The other fruit classes are too numerous to detail.

The pot-plant classes were generally very well filled and made a good display; but the leading prize, that for a group of plants arranged on the floor to produce the best effect within a circle 18 feet in diameter, was rather a disappointment, and the only exhibit, that of Mr. James Hermiston, Hazelbank, Murrayfield, was awarded the second prize. Mr. James M'Neill, Craigerne, Peebles, was first for four stove or greenhouse plants with good specimens, Mr. Allan Smith, The Gardens, Cross Street, Peebles, making a good second. Orchids were few in number, Mr. J. Findlay, Gogar Park, being first in the two classes. Ferns were good, the principal prizes going to Mr J. Hermiston, Mr. J. Turnbull, Mr. R. Brown, Mr. A. Macmillan and Mr. J. Black. Mr. A. M'Millan was first for foliage plants, and Mr. A. Knight, Brayton, led with the same in pots not exceeding 9 inches. For six Chrysanthemums Mr. A. M'Millan was first, while with table plants Mr. J. Fairholm led. Mr. J. M. Stewart being the winner for table Ferns. Mr. A. M'Millan, Mr. R. M'Andie, Mr. J. Thom and Mr. A. Thomson were among the other first prize takers in these classes.

The cut-flower classes were very fine, as a whole, and Sweet Peas, Dahlias and hardy flowers were especially good. For twelve Gladioli Mr. J. C. Fordy led with fine spikes, Mr. A. Brydon coming second. Mr. J. Stewart, jun., was first for six spikes. Mr. J. Wilson had the best Hollyhock spikes, Mr. C. Shaw the best twelve Cactus Dahlia blooms, and Mr. J. Pearson the best bunches of the same flower. The other Dahlia classes were well contested. The Sweet Peas made a good array of splendid flowers, and Mr. T. M. Kirkwood had a creditable win with the twelve bunches, the runner-up being Mr. J. Fletcher, a leading winner at Glasgow the previous week. Mr. J. Gardner won for six bunches.

Roses were perhaps not quite so good as last year, and the winner in the principal class for twenty-four, in not less than eighteen varieties, was Mr. L. Black, Kinglassie, Mr. W. Virtue being second, and Mr. Simpson third. The other Rose classes were excellent and well contested.

Carnations and Picotees were very good, the gold medal, for three 6-inch vases, border varieties, going to Mr. A. Bennet, and the silver medal in another class to Mr. P. Robertson. Tree or Perpetual-flowering Carnations were fine, Mr. J. Wilson being first. Mr. C. Kay was first for show and fancy Pansies, and Mr. J. Waitt for twelve sprays of Violas. Early Chrysanthemums made a good display, Mr. T. Robertson winning for twelve 8-inch vases, and Mr. J. Richardson for six 8-inch vases. Hardy flowers were very well shown, Mr. J. Richardson, Manor, coming in first, and Mr. A. Brydon second. The gold medal for the best display of hardy perennials on a table 5 feet in diameter was won by Mr. A. Brydon, Innerleithen; second, Mr. A. Dickson, Glenormiston.

In the open classes there were many very fine cut flowers. Messrs. Campbell and Sons, Cove, led for twenty-four Gladioli with grand spikes, those of Messrs. G. Mair and Son, Prestwick, who were second, being very fine. Messrs. M. Campbell and Son, Blantyre, were awarded the first prize for a collection of Dahlias, and Mr. J. Smellie was first for twenty-four bunches of Cactus Dahlias and for six vases of Pompon Dahlias. For thirty-six Roses the winners were Messrs. Adam and Craigmile, Aberdeen, whose blooms were fresher than those of Messrs. Cocker and Sons, Aberdeen, who were second. Messrs. D. and W. Croll led in several other Rose classes, as also did Messrs. Cocker and Sons, Mr. W. Ferguson, Dunfermline, and the Killermont Nursery Company.

Vegetables were of grand quality and above the average. One or two leading English exhibitors did not compete this time, and the first prize for the display of eighteen dishes was awarded to Mr. R. Stuart, Thirlestane; second, Mr. J. E. Davies, Ballathie. For the display of twelve dishes grown in Scotland, Mr. S. Gordon, Monreith, led, Mr. F. M. Urquhart being second.

Amateurs made a good display in the classes confined to their number, and a few competed successfully in the other classes also.

TRADE EXHIBITS.

Messrs. J. Veitch and Sons sent a magnificent group of fruit trees in pots. Gold medal.

Messrs. Laing and Mather, Kelso, sent a large table of hardy flowers, Dahlias, &c. Silver medal.

Messrs. G. Bunyard and Co., Maidstone, exhibited superb fruit, tastefully arranged. Silver medal.

Mr. R. Bolton, Warton, Carnforth, exhibited a fine array of the best Sweet Peas. Silver medal.

Messrs. D. and W. Croll, Dundee, exhibited hardy fruits.

Messrs. Gunn and Sons, Olton, showed a large table of such specialities as Phloxes. Silver medal.

Messrs. Lister and Son, Rothesay, sent Pansies, Dahlias and other florists' flowers.

Mr. M. Cuthbertson, Rothesay, set up a table of florists' and other hardy flowers and annuals.

Messrs. T. S. Ware, Limited, Feltham, sent their magnificent double Begonias, including the lovely Lady Cromer. Silver medal.

Messrs. Thyne and Sons, Dundee, showed hardy flowers.

Messrs. Storrie and Storrie, Glencarse, set up a large table of fruit trees in pots, fruit and Celosias. Gold medal.

Messrs. Clibrans, Altrincham, showed splendid vegetables. Silver-gilt medal.

Messrs. Mason and Co., Jamestown. exhibited Chrysanthemums, Dahlias, Violas, &c.

Messrs. G. Fairbairn and Sons, Carlisle, sent Dahlias in great variety. Silver medal.

Messrs. G. Gibson and Co., Leeming Bar, sent a good display of the best hardy flowers. Silver medal.

Mr. D. M'Omish, Crieff, exhibited hardy flowers. Silver-gilt medal.

Messrs. Cunningham, Fraser and Co., Edinburgh, showed a large variety of hardy flowers. Silver medal.

Mr. John Downie, Edinburgh, showed double Begonias and hard-wooded subjects. Silver-gilt medal.

Messrs. Webb and Sons, Stourbridge, sent their well-known vegetables and Sweet Peas. Silver-gilt medal.

John Forbes, Hawick, Limited, made an effective display with florists' flowers. Silver-gilt medal.

Messrs. Dobbie and Co., Edinburgh, sent Collarette and other Dahlias, Sweet Peas, &c. Gold medal.

Messrs. W. Cutbush and Son, London, staged a fine group of hardy flowers. Silver-gilt medal.

Mr. John Proctor, Portobello, sent a group of plants.

Messrs. R. B. Laird and Sons, Edinburgh, showed a large group of foliage and flowering plants, &c.

Messrs. T. Methven and Sons, Edinburgh, sent a group of Clematises, Lilies, &c. Silver medal.

Messrs. J. Fairley and Co., Cairneyhill, exhibited Roses and other hardy flowers. Silver medal.

Messrs. Young, Cheltenham, exhibited choice Tree Carnations. Silver-gilt medal,

Messrs. Cocker and Sons, Aberdeen, sent hardy flowers. Silver medal.

Mr. R. Stannard showed a fine collection of Onions. Silver medal.

Messrs. M. Campbell and Sons sent Dahlias and Chrysanthemums. Silver medal.

Messrs. Myer and Sons sent Sweet Peas. Silver medal.

In addition to the trade exhibits, the Rev. H. Mayall exhibited Sweet Peas (silver medal), and from The Manse Garden, Aberlady, came a nice collection of Apples. Silver medal.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, Tavistock Street, Covent Garden, W.C.

SWEET PEAS FOR GARDEN DECORATION.

THE Sweet Pea is now in such demand for cut blooms that one is apt to overlook its merits as a really decorative plant for the garden. No matter whether it is used for the flower garden, shrubbery, herbaceous borders, or beside the paths in the kitchen garden, it never at any time appears out of place, and if given fair attention during the growing season, it will help to make the garden gay for several months in the year; in fact, I doubt if there is any other plant that has such a prolonged flowering season.

Cultivation.—No matter in what place or position the plants are to be grown, they will always benefit by early preparation of the soil, so that, wherever convenient, the ground should be thoroughly trenched some time early in the year, working in a good quantity of short manure. The addition of soot, bone-meal or superphosphate of lime will all tend towards the better development of the plants. If the rooting space is somewhat confined, do not overdo the manure, but rather rely a little on mulching and feeding after the plants are in bloom. If it is not possible to prepare the ground some time previous to sowing or planting, then do the best you can when the time comes. Never be content with just singly digging the ground, or when the hot weather comes the plants will soon go out of bloom, and instead of being an ornament, as intended, they will be an eyesore.

Seed-sowing.—There is some diversity of opinion as to the best time for this, but from experience gained during many seasons I am quite convinced—especially in the case of plants for garden decoration—that seed sown in pots during the month of October and the seedlings planted out as early as possible in the spring is far the best, and these plants will continue to bloom long after some of the spring-sown ones. I attribute this to the fact that the autumn-sown plants get a much better hold of the soil before they come into bloom, and consequently are better able to withstand drought. If it is not convenient to sow in the autumn, then sow early in the spring, that is, any time up till the middle of March; but after this, except in very favourable seasons and localities, it is not wise to sow. Even in the spring, sowing in pots or boxes is far the best. The amount of seed needed is not so great, there being less danger from losses by birds, mice and slugs, and it is much less trouble to look after the plants all together than when distributed all over the garden, as they naturally would be if sown straight into the ground. Pots of 4½ inches or 6 inches are suitable, and these should be three-parts filled with soil of a light, porous nature, putting the seeds evenly 1 inch or so apart all round the pots and afterwards filling with soil. In this way, when the plants appear they will get a fair amount of light and air all round them. The pots should then be placed in a frame or on the shelf of a cool house, where they can remain till the time of planting out, and if care is taken and plenty of air given, the plants will keep quite sturdy and there will not be more than 3 inches difference in the height of the spring and autumn sown plants; but at all times care must be taken to protect against slugs and birds. If growing in frames, I like to spread a piece of garden netting over them, as I find the sparrows are very partial to the young tips in the early spring.

Planting Out should be done as early as possible during April, and if the ground or plots are in good condition, a little frost is not to be feared, especially if the plants have been properly hardened off. All the roots should be shaken clear of the soil, and not be planted out matted together, as when growing in the pot. Although this may seem harsh treatment, the plants will take better to the soil for it. Staking must be done at once. Old Birch brooms pulled to pieces answer well for this purpose, and will carry the plants till the time for permanent staking. I have seen several methods practised, both for rows and clumps, but I do not think that for neatness throughout the season there is anything yet to beat good bushy Hazel stakes, and for clumps four or five of these neatly tied round a wire hoop about 2 feet to 3 feet in diameter make a very neat job indeed. After the staking there is nothing much more to do to them except to see they are well mulched before the dry weather comes on. After they begin to bloom freely they must not be neglected in respect to feeding and watering, also all stale flowers must be regularly cut off, or seeds will form, thus tending to shorten the flowering period. There are many ways in which Sweet Peas may be used to adorn the garden. Although rows are

somewhat abused, they may be made to serve a useful as well as a decorative purpose—as a screen to block out some unsightly corner during the summer, or possibly to block out the frame ground, as a dividing hedge between the flower and vegetable portions of a small garden, or perhaps the best and prettiest use I have seen for a row of Sweet Peas was as a background to a long border of annuals. The Sweet Peas grew at about the same rate as the other annuals, and thus did not overwhelm them in any way. But it is when used as clumps that Sweet Peas are seen at their best, and as such they may be planted in almost any part of the flower garden with advantage, either as dot plants in the herbaceous or annual border, or here and there a few clumps among the shrubs of a newly-planted shrubbery; but nothing looks better than isolated clumps round the margin of a lawn, particularly if in a semi-sheltered position. Although one is not able to prepare such a large area of ground for them, yet if a hole is made, say, 3 feet across and about the same in depth, and good soil and manure are added, it will be quite sufficient for the requirements of the plants. Clumps of Sweet Peas also look and do well at the back of Rose borders, but I have in my mind a continuation of Rose arches, between which a clump of Sweet Peas is planted annually, and as the Roses (which are ramblers) go out of bloom, the Sweet Peas make quite a show until late in the season, and many favourable comments I have heard of this manner of planting. In many large gardens, beds of sub-tropical plants are quite a feature, and in these a few clumps of Sweet Peas may often be introduced, they providing flowers at a height which in other plants it is difficult to obtain. One must not forget to what advantage tubs may be used for Sweet Peas; and where it is inconvenient to grow clumps in the lawn itself, it is often convenient to grow them in tubs and place them in position as they come into bloom, thus obtaining an effect just when and where it is wanted. In planting clumps, either in the garden or tubs, do not crowd too many plants into a small space.

Suitable Varieties.—As lovers of Sweet Peas we naturally think that all varieties are beautiful, and as such are good for garden decoration, and so they are; but some varieties stand out in front of others in this respect, and in planting them due consideration must be given to the colour of the flowers with which they are to associate, so that they do not clash one with the other. The following varieties I can thoroughly recommend for their good growing and blooming qualities: Crimson and scarlet—Sunproof Crimson, Doris Burt and Scarlet Monarch. As a white for garden decoration, Dorothy Eckford still holds its own, to which might be added Etta Dyke and Moneymaker, both good, strong-growing varieties. In the pinks we have a great many varieties of equal merit, though I doubt if there are any to beat Countess Spencer, Mrs. Hardcastle Sykes and Mrs. R. Hallam. In blue, two rather old varieties still hold their own as garden varieties—Dobbie's Mid Blue and Helen Pierce; to these may be added Prince Olaf, one of the best decorative Sweet Peas I know. In the cream shades we have Evelyn Hemus, Clara Curtis and Isabel Malcolm. We have also several varieties in the orange shades that are worth their places for garden decoration—Thomas Stevenson, Edna Unwin and Helen Grosvenor—all standing the sun very well. The lavenders and mauves are, perhaps, not quite so striking as some of the other colours, but they, nevertheless, take their places quite well in some positions, and Florence Nightingale, Nettie Jenkins, Queen of Norway and Tennant Spencer are all good growers and reliable as to colour. A few other varieties not under the above colour headings are Zarina, Colleen (one of the very best), Elsie Herbert, Rose du Barri, Spencer America, Marie Corelli, Afterglow and May Campbell. One or two of these are not quite up to exhibition standard as regards size of bloom, &c., but they are very telling in good bold clumps, especially when planted where the colours show off to the best advantage.

THOMAS STEVENSON.

Woburn Place Gardens, Addlestone.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 2.—Mansfield Horticultural Society's Meeting.

October 3.—Scottish Horticultural Association's Meeting. Stirling Horticultural Association's Meeting.

October 4.—National Chrysanthemum Society's Early Autumn Exhibition at Crystal Palace (two days).

October 7.—Société Française d'Horticulture de Londres Meeting.

The National Sweet Pea Society.—The next annual exhibition in connection with the above society will be held in the Horticultural Hall, Vincent Square, Westminster, on July 9 and 10, 1912.

National Chrysanthemum Society's conference.—The National Chrysanthemum Society has arranged to hold a conference at Carr's Restaurant, Strand, W.C., on December 4th, at 7 p.m. Two papers will be contributed, and their titles and authors are: "The Culture of Disbudded and Spray Flowers," by Mr. F. W. Ladds of Swanley Junction; and "Soil Preparation for Chrysanthemums and the Use of Some Chemical Plant Foods," by Mr. Percy Cragg of Heston.

Pavement lifted by Mushrooms.—The pressure exerted by growing Mushrooms has often been a matter for surprise. Some few years ago many paving-stones in the streets of Bath were lifted from their places by the growth of Mushrooms. A further illustration of this remarkable lifting power has recently occurred at Bristol, where the asphalt pavement in the St. Jude's district began to bulge upwards, and soon afterwards the heavy mass split in several places. The cause of the upheaval was found to be growing Mushrooms, of which some 2lb. were gathered from a small space beneath the pavement. That so small a quantity of a comparatively soft-growing fungus should be capable of lifting a solid and heavy pavement presents a problem to science which is not readily explained.

The influence of town atmosphere on plant-life.—The lecture given at the North of England Horticultural Society's meeting on September 20 was one of especial interest to horticulturists. The lecture was given in the Lecture Hall of the Leeds University by Mr. A. E. Ruston, B.A., B.Sc., a member of the scientific committee, on "The Influence of Town Atmosphere on Plant Life." Mr. Ruston, in conjunction with Dr. Crowther, has been carrying out investigations in ten centres of Leeds. The lecturer, with the aid of lantern illustrations, gave the results of the experiments made of the various atmospheres. He said all blame should not be put on the shoulders of the manufacturer, though he did pour out a tremendous volume of smoke into the atmosphere, for every house chimney was adding its quota to the cloud, and every household wasted 5 per cent. of its coal in smoke. At the Leeds Forge—one of the ten centres, also one of the blackest parts of the town—the rain-water showed 2,000lb. of solid material deposited each year per acre, while at Roundhay a deposit of only 90lb. could be recorded. Tests had shown at Hunslet, another station, that vegetables and salads were only half a crop compared with what should be grown under purer atmospheric conditions. Again, an Ash tree retained its leaves six weeks longer at Roundhay than one at Hunslet, and here 30lb. of sulphur oxides per acre had been found, while outside the smoke ring at Roundhay none had been found. To show how the growth of plants in towns was checked, the lecturer said that 80 per cent. of the stoma through which the leaves breathed were blocked up by the sticky material which covered them in smoke-polluted areas such as Leeds. Owing to the smoke cloud, vegetation was severely checked, for of the material of which plants were built up, the greater part was not drawn from the soil, as is usually supposed, but from the atmosphere.

CORRESPONDENCE.

(*The Editor is not responsible for the opinions expressed by correspondents.*)

Gladiolus tristis.—I was glad to see in THE GARDEN for September 2 Mr. Fitzherbert's note on Gladiolus tristis concolor. I have grown and listed it in my bulb catalogue for years, and the beds of it when in bloom in May are always much admired by visitors. For cutting it is most delightful, and a vase of it intermingled with some sprays of Ixiolirion tataricum, which flowers at the same time, is very beautiful; the soft greenish white of the Gladiolus harmonises so well with the bright blue Ixiolirion. G. tristis grows freely with me here in Thanet and gets no protection beyond matting swung round some 4-feet stakes to keep the biting winds in January and February from withering the grassy foliage, which by then is from 12 inches to 18 inches high, as this species makes very early growth, beginning to spear about November when left in the ground. For this reason I advise planting late—about mid-November—keeping the corms in a cool, dry place exposed to the light, and spread out in a single layer in shallow boxes. The scent of G. tristis is most delicious—suggesting Honeysuckle to me—but, as Mr. Fitzherbert says, it is developed in the

evening only—a circumstance undoubtedly connected with its fertilisation by some night-flying moth.. Anyway, Nature, in endowing this sweet flower with its fragrance, has amply compensated for the lack of brilliant colour found in most Gladiolus species. I should say that my beds of it are on the south side of a brick wall; but even here, three winters ago, it got buried in a snowdrift in January 18 inches deep, and came through the ordeal unscathed beyond the frosting of the tips of the leaves which were unprotected by the snow. I can endorse all that Mr. Fitzherbert says in praise of this charming flower.—W. C. BULL, *Ramsgate.*

Acantholimon glumaceum.—Mr. Reginald A. Malby on page 433 writes interestingly of this Prickly Thrift, though I have not the least hesitation in saying that some, if not all, of the difficulties he would appear to have in mind concerning it are wholly induced by circumstances. Mr. Malby refers to the plant chiefly as one suitable for crevice planting, and immediately says that it is "a tap-rooting plant" that "dislikes removal." Now, no one who knows the plant will disagree that the rolling, half-tumbling tufts or hummocks look extremely well emerging from fissure or crevice, but the slow growth referred to in the first year or so, as also the tap-rooting and the impatience of removal, are all a consequence of this particular method of culture. Tap roots are virtually made—created, as it were—in proportion to the fissure depth existing, even in plants not usually prone to do this thing, and such roots may extend to a yard or more in length, fibreless, or nearly so, as has often been found in the case of Anemone sulphurea, Saxifraga longifolia and others. But plant these same things in positions where the soil they require is immediately available, and you get at once a mass of fibrous roots on a forked, freely-branched root system that is simply surprising—surprising not merely because of the fact, but because of the obvious turn which it gives to affairs generally and to the amenability of the subject. Tap-rooted plants are impatient of removal, simply because of their usually fibreless condition. In Nature tap roots are largely the result of circumstance—by seeds falling into fissures of rock or being washed there—the struggle for life producing the rest. But in cultivation we need not so imitate these conditions as to render a plant difficult to grow or increase. As Mr. Malby has concerned himself with crevice and fissure planting, and with which I fully agree up to a certain point, he may be surprised to know that in addition to these I have freely employed this Prickly Thrift as an edging to gravel paths, that it submitted to biennial division when thus grown, and gave little or no trouble when transplanted. Moreover, I have not found it difficult to propagate, having rooted it by the hundred chiefly, if not entirely, from cuttings of the current season's growth stripped from the parent plant with a heel attached late in August and inserted under a hand-light without more ado. A much more difficult plant to deal with, though I have had considerable success with this also, is A. venustum. To employ a knife to the cuttings I have named to remove the "heel" portion is a proceeding as fatal as that of employing artificial heat. The rooting process is slow, and in all such cases the only safe place that I know is the hand-light or frame at ground-level. Here in half sand, half soil, the cuttings are usually safe—infinitely safer, indeed, than in pots, since in these watering is raised to a maximum which is often dangerous.—E. H JENKINS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

POT FRUIT TREES.—Preparations must now be made for potting the main batch of fruit trees in pots. A suitable compost for Peaches, Nectarines and Plums is loam, well decomposed horse-manure, crushed bones and a good sprinkling of old mortar rubble. For Apples and Pears the compost should have less mortar rubble than for the stone fruit. If anything, the soil should be on the dry side rather than too wet. Except for trees in extra large pots, which do not require repotting every year, the whole of the trees should be repotted now. Commence with the earliest-forced trees, and make sure that the roots are thoroughly moistened before potting begins. The whole of the outside roots must be disentangled and the ball reduced, so that in most cases the trees can be repotted into the same sized pots. When filling in the soil around the ball, take care that the whole of the space is filled. For the purpose of ramming this firm, an extra thin potting-stick must be used. When the trees are repotted, they must be placed in a shady position and kept syringed. The method of growing choice fruits in pots is developing rapidly. Here we have a batch of nearly a thousand trees, and this is annually increasing. Peaches, Nectarines and Plums are especially suitable for this style of culture, and if the fruits are not so large in the case of Peaches and Nectarines as those on the trees permanently planted in a border, the quality is all that could be desired. Another great advantage of this method is that the house can be used for other purposes as soon as the crop is over, as the trees must be placed outdoors till the time arrives to start them again. Varieties suitable for this purpose are: Peaches—Hale's Early, Royal George, Stirling Castle, Bellegarde, Dymond, Late Devonian and Marquis of Downshire; Nectarines—Cardinal, Rivers' Early Orange, Pine-apple and Humboldt; Plums—Denniston's Superb, Early Transparent Gage, Green Gage, Jefferson, Kirke's and Coe's Golden Drop; Apples—Lady Sudeley, James Grieve, Cox's Orange Pippin, Ribston Pippin, Gascoyne's Seedling, Emperor Alexander, Peasgood's Nonsuch and The Houblon; Pears—Triomphe de Vienne, Souvenir du Congrès, Marguerite Marillat and Doyenné du Comice.

Melons.—With the shortening days and less sunshine, the treatment of Melons must differ from that which has been given them earlier in the season. Except on very bright days syringing must be discontinued, and even on those occasions it should only be practised in the morning. The atmosphere may be kept moist by damping down the walls and paths in the house. Watering must also be done carefully, or a great many of the plants will be lost through canker. It is now advisable to keep the hot-water pipes constantly heated, and when the fruits commence to ripen, the house must be kept quite dry and the top ventilators left open a little day and night.

Early Pot Vines.—Those Vines from which ripe Grapes are expected in April must be selected and prepared for starting at the beginning of November.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

CHRYSANTHEMUMS.—Plants intended to supply large blooms should now be placed in a structure that will protect them from frost, as after this date the thermometer may fall below freezing-point at any time. Before housing them the foliage should be carefully inspected for any signs of mildew, for if present it will rapidly develop when the plants are put under glass, destroying the foliage and, consequently, crippling the after-development of the flowers. Flowers of sulphur dusted freely over and under the leaves is perhaps the most effective remedy to use, and if green fly has made its appearance, it should be at once attended to by dusting the affected parts with Tobacco powder or fumigating the house as soon as possible, for if this pest gets among the opening petals it is difficult to eradicate. In many places Chrysanthemums have to be wintered in vineries; and while those vineries that have all the fruit cut are suitable for the purpose, those with ripe Grapes still hanging require constant care to do justice to the Chrysanthemums without causing injury to the fruit. Bush plants for furnishing the Christmas supply of flowers should be kept out of doors as long as the conditions of the weather will allow. See that the plants are properly secured to their supports, as high winds may be expected, and on cold nights they may be protected with scrim or tiffany until the buds are well formed, when they should be housed. Some of the later and more delicate of the autumn-flowering varieties that have been growing outside may be lifted at this time, and if given the protection of any unheated glass structure, they will furnish a useful supply of cut flowers until the main lot of pot plants are available. There is often a break at this season in the cut-flower supplies, especially if sudden frosts have destroyed all outdoor stuff, and the early-flowering Chrysanthemum provides all that is necessary.

Malmaison Carnations.—The layers of these, if potted up as soon as they were sufficiently rooted and kept for a short time in a semi-close atmosphere to give them a start, should now be placed in their winter quarters. A light, airy house suits them best, and the plants should be kept near the glass to induce a stocky growth. They should be gradually supplied with increasing ventilation until the ventilators are opened to their full extent both top and bottom, and they should only be fully closed when frost would be likely to damage the hot-water pipes. As winter approaches, water must also be supplied sparingly and the plants allowed to get fairly dry before giving it. The watering should be done, if possible, in the forenoon, so that all superfluous moisture is dried up before evening. Avoid damping the foliage and see that drips from a faulty roof are prevented. The same precautions should also be taken to see that the plants are thoroughly free from vermin before they are housed. The greatest enemy of this Carnation seems to be what is commonly known as Carnation rust, which is difficult to get entirely rid of when once it gets a good hold; but given a good clean stock to start with (and there are plenty of such in the country), one need never be troubled with this pest if proper methods are observed in cultivation.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

APPLES AT WELFORD PARK.

THAT veteran raiser of Apples, Mr. Charles Ross, V.M.H., now in his eighty-seventh year, and resident at Henley-in-Arden, and who has been in his long life the most prolific raiser of British Apples, was so far fortunate when years and physical weakness compelled his leaving Welford Park, for so many years the scene of his experimental labours, to be at once followed by an old and esteemed friend, Mr. W. Pope, formerly of Highclere Castle Gardens, who, taking the greatest interest in the large collection of Apples in the Welford Park Gardens, including all Mr. Ross' original or seedling trees of various crosses or generations, has proved to be a most careful and conscientious custodian, and seems to feel all that interest and enthusiasm in the varieties which must still be that of the aged raiser. Learning from Mr. Pope that practically every one of Mr. Ross' varieties were fruiting this season, I went to Welford Park on the 8th inst. specially to see them. Generally there is throughout the gardens and orchards a splendid crop of fruit, and many old named varieties, now widely grown, are very heavily fruited. But these are well known. Chief interest necessarily centred on the Welford natives, and especially on varieties which, while previously named by the raiser, because young hitherto, had not fruited so fully as now. A truly superb conical - shaped, whitish cooking variety is Charles Eyre; indeed, it was here both on the seedling and on worked trees, and was probably the finest Apple in the gardens. It is evidently a fairly early variety, and should in time become immensely popular for market growth. Charles Eyre is of sturdy bush form in growth, short-jointed and a heavy cropper. Close by was a further seedling named Peacemaker. This was raised from Charles Ross × Rival, the fruits round, of good size, singularly handsome and richly coloured, and the tree as seen in fruit formed a beautiful object. This, again, was of very sturdy, robust growth. Again close by was a third variety named The Guelph, the parents being The Houblon and Rival, the fruits, most freely borne, having all the joint beauty and excellence of these popular parents. It is a later ripener than either of the others named. What might not inappropriately be described as a giant Lemon Pippin is Excelsior, fruits green, conical, very handsome, and each one having the curled tail so common in Lemon Pippin, and often seen in Newton Wonder. This is a good keeper. The tree is a robust grower and carries a heavy crop. Another noble conical green Apple is Royal Edward, which is a late ripener and good keeper, also a heavy cropper. So also is Martinmas, growth very erect, fruits large and conical, and a long keeper. Others yet to finish up are Canary, so named because the medium-sized fruits become a rich yellow colour; Candidate, fruits large, flattish round, the tree a robust grower; John Norman, fruits smaller and keep well; and Renown, fruits medium sized, round flattish, and prettily striped. Beyond these there are several other seedlings yet unnamed; hence it will be seen that from Welford Park may yet come into commerce not a few superb varieties. Inclusive of Charles Ross, The Houblon, Rival, Paroquet, Coronation, Encore, Hector Macdonald and Armorel, all grandly fruiting, and of Welford Park Nonsuch, Ruddy, Bella, Redwing, Richard, and Mrs. Phillimore, fruits mostly gathered earlier, I made a list of no fewer than twenty-five varieties Mr. Ross has raised and named, with others, as stated, yet to be further seen. Mr. Pope purposes a little later on to bring up to the Royal Horticultural Hall the most complete exhibit he can make of the Ross Apples. Such a collection would indeed be a worthy exhibit, seeing that to Charles Ross alone can be ascribed the honour of being in Great Britain our most fertile and able raiser of new Apples. A. D.



COLLARETTE DAHLIA MAURICE RIVOIRE. (*See page* 469.)

FILBERT NUT EARLY PROLIFIC.

THIS is a very useful and reliable variety to grow, and should find a place in all gardens where early Nuts are appreciated. It is very prolific, and the Nuts are of good flavour. The old Kentish Filbert, grown very extensively in some parts for the production of early crops, is of the best quality, but I do not think it is so free cropping as Early Prolific. To follow these two varieties the Kentish Cob is an excellent Nut, and is probably cultivated more largely than any other sort. I think in districts where the climate is favourable a few bushes ought always to be grown, as they are remunerative, and a dish of good-sized Nuts with fresh and plump kernels is usually appreciated at a time when fruits are rather scarce.

The bushes will grow and bear heavy crops when planted on banks or land where other kinds of fruit trees would fail to grow, but the best soil for Nuts is that of a moderately light loam free from rich manure or anything that would induce a strong, unfruitful growth. The ground should be well trenched and the subsoil thoroughly broken up to allow the water to pass away freely, nothing being more detrimental to the growth and the production of suitable fruiting twigs than a stagnant subsoil.

The bushes succeed best and produce the best crops when arranged and set out 14 feet apart on a southerly aspect sheltered from the cold, biting north and easterly winds. In Kent and other parts where much attention is devoted to the culture of Nuts, and where they are grown extensively for market, from quite tiny trees they are annually very carefully pruned. The heads are kept well open, from three to five suitable shoots being selected at equal distances from a clean stem 18 inches from the ground-level. These shoots, when pruning is done, are cut to an outer bud and trained basin-shaped, more suitably situated shoots being selected as the bushes increase in size, while the height of each is on an average about 6 feet or 7 feet. The aim of all growers of Nuts is to get all the main branches clothed with small twiggy, fruitful wood from the bottom to the top. All suckers springing up from the base of the bush and roots are instantly removed, as well as any coarse growth in any part of the heads of the bushes. H. MARKHAM.

Wrotham Park Gardens.

FLOWER GARDEN

MY LITTLE GARDEN IN KENSINGTON.

(*Continued from page* 380.)

I WROTE my last article for the beginner—for the busy individual with work or society who for one reason or another has not too much time to devote to his or her garden. I felt well assured, however, that what was begun more to finish off a tidy, beautiful, well-kept house with a tidy garden would, little by little, or perhaps even swiftly, become an absorbing interest claiming more and more of its owner's time and energies, and, finally, taking precedence of all other interests, some of which had hitherto been considered of paramount importance.

If I, or more likely THE GARDEN itself, have been able to implant the love of gardening in any one bosom, to that one anyhow I have conferred a priceless boon, one that will be everlasting and take no count of age or circumstances. It was for this reason I was anxious to start off my London gardener with lovely things that I knew would grow, so that success at the outset would encourage him to tackle greater difficulties; and those that

lurk in ambush for the gardener in London are many and various enough to frighten anyone in whose breast the germ of enthusiasm has not found an abiding home.

Assuming, then, that this same beneficent germ *has* taken possession of some fortunate individual, and that he has got over the stage of wanting to grow the easiest things, his next stage will probably be an ardent desire for a rockery—a form of gardening holding unplumbed depths of pleasure and pain, of gratification and disappointment.

Always difficult and chancy under most favourable circumstances, it is doubly so in London; nor can I boast of anything but partial success. Better gardeners than myself have explained more or less ably at various times in THE GARDEN how to make a rockery. It is sufficient for me to say that if in the country sharp drainage is necessary, in London it is imperative, because it is damping off that is the cause of most of the Londoner's losses. The other essential is sunshine. It is hopeless to put a rockery in a dark corner under a tree unless, indeed, you wish to grow Ferns in it, in which case they will do well. Let one insist also upon what cannot be too often reiterated; that a rockery should be a heap of earth with a few stones scientifically arranged thereon, and not a heap of stones with a little earth sandwiched in between. Each pocket should be filled with a suitable medium for that particular plant for which it is destined.

At first the novice in rock gardening will fill his rockery with anything that will grow and look gay. As his education progresses he will pull these out one by one, and, finally, nothing will be tolerated in his rockery that is not essentially a rock plant, though not necessarily an alpine. As a London rockery must naturally be small, it is as well to plant the larger subjects on the highest part of it, and flanking it where possible, so that, although part of the rockery, they are not filling up the precious pockets which must be reserved for more delicate things. In this way you can get bold effects, and also prevent that abrupt sudden stop that one so often sees to a rockery which is so inartistic and unsatisfying.

For this purpose the Irises are ideal. They are true rock plants; you may see them growing wild among the flints on the Downs between Swanage and Studland Bay. This Iris I take to be Iris fœtidissima (Stinking Gladwyn), as it has large seed-pods (though I am open to correction now, as always, from readers of THE GARDEN). In Italy you find Irises growing out of seemingly nothing but rock or stone. In the gardens all over North Italy they are grown in pockets of cement and stone on the tops of the walls, flowering superbly in about a handful of earth, making a line of purple and white the beauty of which is almost beyond belief. These are always the German Iris, as far as my ignorance could discern, but many were the white form of Iris germanica, which, I understand, is not the Iris florentina, but a handsomer, bolder plant. Though I have not yet tried this magnificent Iris, I have seen it flowering to perfection in a small front garden in the Addison Road, which has encouraged me to order some for myself, as they seem to me a perfect flower without a flaw.

Another useful, handsome and hardy plant for rounding up the rockery is the Funkia sieboldiana. Its leaves are lovely, and its lilac, pendulous flowers are no less lovely. It grows willingly in London and to a large size, for which reason it must have plenty of room. It does not like full sunshine nor yet full shade, but of the two prefers the shade, which makes it still more useful to the poor Londoner, who is for ever seeking things that will not reject with contumely a more or less shady spot. It does not like to be disturbed, and is grateful for an occasional ducking from the hose to rid its lovely leaves of soot, which remind one of a beautiful healthy child with a dirty face. It begins to flower in June, and, though the blooms do not last long when once up, it keeps putting up a succession of them all through July.

HELEN SHARPE.

23, *Pembroke Road, Kensington.*

(*To be continued.*)



A BEAUTIFUL ALPINE PLANT, ANDROSACE LANUGINOSA.

THE COLLARETTE DAHLIA.

IT is always a matter intensely interesting to trace the development of any given flower to the wilding from which it has sprung. This applies to the Dahlia as much as to any flower, for its known history dates back to the year 1740, when it was first heard of in Central America. In the early part of the nineteenth century the Dahlia made great progress in public favour, and many new forms and colours were then evolved. Within the last few years the old-fashioned show Dahlias have almost entirely lost their place as garden flowers. Two sections that have come very much to the fore during this time are the Pæony-flowered and Collarette varieties. The latter has this season been brought prominently before the public; for has it not received special awards at the Crystal Palace Vincent Square and in Scotland? It is rather singular that these awards should have followed so closely upon one another, for prior to this year the new break had been ignored. The variety Maurice Rivoire, illustrated on the previous page, is of Continental origin, and has been known in this country for a few years. It was not, however, until this year that it received the first-class certificate from the National Dahlia Society and, a few days later, an award of merit from the Royal Horticultural Society. The flower of this variety is very showy indeed; the outer florets are rich crimson, the inner and smaller florets being pure white.

ANDROSACE LANUGINOSA.

FEW alpines provide such a charming picture as this Androsace when at its best and grown in sufficient quantity to form a distinct feature in the rock garden, as shown in the accompanying illustration. This Androsace is perfectly hardy as regards frost, having been known in English gardens to withstand unprotected a temperature some degrees below zero without being harmed. Unfortunately, the plants often do not prove easy of culture, for although in certain gardens some species will flourish to perfection, the same plants will absolutely refuse to grow under apparently precisely similar conditions, even when treated with the most solicitous care. Our English winters, with their alternations of frost and damp, are, doubtless, chiefly responsible for their disappointing behaviour.

In their native lands, though the winter frost is very severe, they are covered with a thick mantle of snow, which keeps them dormant and snug until it is melted by the strengthening sunshine. A. lanuginosa, a native of the Himalayas, is without doubt the loveliest of its family when seen in large masses covered with flowers. Its rosy lavender blossoms with yellow and carmine eyes commence to expand in May, and are at their

best about midsummer, but often continue well into the autumn, it being no uncommon occurrence to see an example still in bloom in November. The silky foliage is greyish white in colour, and large specimens have the appearance of cascades of silver falling over the rocks. The mass illustrated, which measures over 4 feet each way, is the result of two little plants put out from 2½-inch pots a few years ago on a sunny bank in soil mixed with a large proportion of small stones and grit. In many neighbouring gardens this Androsace has refused to grow. As an instance of the capriciousness of this species, it may be mentioned that what was probably the finest example in England, and has been illustrated in THE GARDEN, which formed a cataract of bloom many feet in length and over a yard in width down a series of rocky ledges, and whose owner described it as one of the easiest of rock plants to grow, suddenly died a few years ago, since which time this Androsace has absolutely refused to exist in the same garden, although good rooted cuttings have been annually planted and fresh compost of the most approved description has been provided.

A. lanuginosa makes prostrate stems 1 foot or so in length, and if these are pegged down into the soil they will soon root. It is easily propagated by means of cuttings of the current year's growth taken in the autumn. These should be inserted in very sandy compost, and if kept close for a short time they will soon root. Plantations may be made in the early spring, when, if the young plants are placed a few inches apart, a good effect is obtained the first season. Old stems cut back make stronger growth and bear larger heads of bloom. Our damp winters often working havoc with this Androsace, it is advisable to protect it from becoming sodden with rain by fixing panes of glass horizontally over small plants and lights over larger ones; these, while allowing the air free access to the plants, prevent their being affected by excess of moisture. A compost of fibrous loam and leaf-mould in equal proportions mixed with grit and limestone chippings proves well adapted to its wants, while a depth of at least 18 inches of soil should be provided, as in a shallow pocket one cannot expect vigorous health. The surface should be covered with stone chips, which will prove useful both in retaining moisture and in preventing the silvery foliage being soiled by the earth.

WYNDHAM FITZHERBERT.

Kingswear, South Devon.



A DECORATIVE PLANT OF CHRYSANTHEMUM M. JULIAN VALET.

SWEET PEA NOTES.

OCTOBER SOWING.—There can be no question that autumn sowing is unceasingly growing in favour with those who cultivate Sweet Peas for exhibition—and who does not in these days? It has been shown times without number that plants raised in the autumn produce flowers which are vastly superior to those raised in the spring. Although the blooms are not invariably larger, they are greater in substance, and this thickness gives them an appearance of being far richer in colour, while the stems are usually better. Then, too, in my experience, autumn stock does not suffer to the same extent from the disease which we are all now beginning to dread, and this comparative immunity is particularly marked where the soil is prepared in the autumn for spring planting and the amount of organic manure is not absurdly excessive, as it, unfortunately, commonly is with many cultivators, who seem to think that quantity alone spells quality. At the same time, it must be acknowledged that autumn sowing involves difficulties and dangers which do not arise to the same degree when the whole of the work is accomplished in the spring, the start being made in the greenhouse towards the end of January. However, there is nothing insurmountable, and those who aspire to the most admirable results must adopt autumn sowing sooner or later, and the sooner the better. Mice and birds generally prove to be the worst enemies; but those who watch points and always have the interests of their plants closely at heart will see that the losses from these causes are not serious. The weather that frightens the tyro has no terrors for the experienced cultivator, who fully appreciates the fact that, under intelligent management, neither cold nor wet will have the smallest effect on the plants or the results. Given good seeds, which are now easily procurable from advertisers in THE GARDEN, sound frames, boxes, pots and soil, there will be no such thing as failure among a thousand or more cases. As far as soil is concerned, each will, to some extent, rely upon his own experience and convenience; but one cannot go far astray with good loam, refuse manure and sharp sand, the proportions being three of the first-named and one of the second-named, with enough of the last-named to keep it sweet and open. The ingredients ought to be thoroughly mixed and allowed to lie upon the bench for two weeks before use, when there must be that pleasant moistness which goes so far to favour success. Pots 6 inches in diameter, or stout boxes not less than 10 inches in depth, are much preferable to 3-inch pots, for the simple reason that these latter do not afford enough depth for the roots, and repotting has to be done at a time when the desirability of avoiding the slightest check cannot be doubted. In filling either pots or boxes, the soil should be brought to within 1 inch of the top for white and spotted seeds, and 2 inches for black or brown seeds, this allowing an inch of covering. In the case of the white and spotted seeds, it is better merely to press them into the firm surface and not to cover in at all. Some surface with sand in these cases, but with suitable soil it is unnecessary, and adds to the trouble. Provision for drainage should be made; but it must not be excessive, as large supplies of water are never desirable. If boxes are used, I prefer to stand them on bricks to raise them up from the bottom of the frame a little, as the danger from rotting of the wood is thus reduced. For pots, an ash base is the best, and packing material should be put between them to prevent frost in the soil cracking the pots. The soil must not be allowed to become dry, or germination will be considerably retarded. When 3-inch pots are utilised, one seed ought to be put in each; 6-inch pots provide the necessary accommodation for five seeds set equidistantly round the sides; while in boxes a distance of 6 inches in all directions must be allowed; and my experience, extending over a rather lengthy period, goes to satisfy me that, all other things being equal, the box-raised plants will be the most satisfactory. Between the 8th and the 15th of the month is an excellent time to sow.

A. B. ESSEX.

CHRYSANTHEMUM M. JULIAN VALET.

ALTHOUGH this variety has been shown in the second week in November, it is really an October-flowering one, and is, as the accompanying illustration shows, a very free bloomer and of good

habit. The blooms are pure white, the outer petals reflexing and slightly whorled, the central ones incurving a little just before the bloom is fully developed. It makes a splendid variety for growing in pots for the furnishing of greenhouses and glass porches, also for the supply of cut flowers from the middle of October to the middle of November. Amateurs should propagate cuttings early in March. Pinch the resultant plants early in May, and again about the middle of June. If disbudding is done, about nine blooms may be grown on plants in 7½-inch pots. Cuttings rooted late in April should be flowered in 6½-inch pots, about five flowers to a plant being the average. The blooms will be more numerous but smaller on plants that are not disbudded. The variety is a capital one for growing in outside borders as well as in the greenhouse.

AVON.

COLOURED PLATE.

PLATE 1435.

HOW TO GROW CYCLAMEN FROM SEED.

TO those familiar with the culture of Cyclamen it is well known how very slow these plants are in their earlier stages; indeed, many find this so marked a failing that they hesitate to take up seed-sowing, preferring to purchase plants in early spring to grow on. Once they have advanced to the second and third leaf, progress is more rapid. Seeds usually are sown in August and September to obtain flowering specimens for the winter some fifteen months hence. Their first six months' progress is not much to look upon, as quite six weeks of this time is taken up in the formation of the root and corm, which takes place before any leaf appears.

Cyclamen culture is much better understood now than was the case only a few years since, for then they were not often seen in a flourishing state, except in trade establishments. They need to be coaxed in their younger stages, and even in spring and summer they will not thrive on the treatment meted out to the familiar Zonal Pelargonium. Not much difficulty presents itself in the sowing and raising of plants so long as sweet, porous and fairly rich compost is prepared for them. Pots or pans are suitable for this purpose, giving ample drainage. The plants will then go on very well till December or January, according to the number occupying the soil. Sown thinly they do best, leaving them until the second leaf is formed before they are disturbed. We find roots are active in early February, and in suitable gritty soil and in small pots the plants soon develop other leaves corresponding to the roots. They need a temperature ranging from 55° to 60° at these stages of their growth, and a shelf answers well until the sun becomes strong, when Cyclamen must have shade. A moist atmosphere suits them, and rather than stand them on an open, draughty shelf, I prefer to surround the pots with Cocoanut fibre or leaves, which keeps them more uniform in moisture. Later, when the shelf becomes too hot and the nights are warm enough, our plants are transferred to a pit kept fairly close and shaded, so that root and leaf are both encouraged. They must not have extremes of any kind if success is sought, for they are very impatient of these.

In the summer they can be given air more freely in the day and less at night, spraying them overhead in the afternoons of fine days. Five-inch and 6-inch pots are ample for them the first year. These fill with roots easily from strong plants, and by the autumn, when, say, twelve months old, they should be quite 12 inches across their heads and have a crowd of flower-buds awaiting successive development. Cyclamen are among the finest of our winter-flowering greenhouse plants, giving quite six months' succession of brightly coloured, sweetly scented blossoms. To do the plants justice they must have individual treatment; that is, they should not be expected to mix and thrive among other plants, but be given a frame absolutely to themselves. Some, indeed, may fail in their attempt to grow Cyclamen under mixed conditions and sustain disappointment in their effort. They cannot be described as difficult of culture if these few items are borne in mind and acted upon the season through. They should never be allowed, on the one hand, to become dry, nor, on the other, must the soil ever be sodden with water. Drainage should be ample without being excessive, and a fair quantity of coarse sand or broken brick ought to be incorporated with the soil. The corm should be kept just below the surface of the soil, and not, as so many practise, above, for roots issue from practically the whole surface of the corm.

Cyclamen embrace a wide range of fine colours now, as several of the leading seedsmen devote so much time and effort to the improvement of their strains. No firm has done more in this direction than Messrs. Sutton and Sons, to whom we are indebted for the colour photograph from which the coloured plate presented with this issue has been prepared. A visit to Messrs. Sutton and Sons' trial-houses in early spring reveals a sight worth going far to see. Cyclamen of all kinds and colours may be seen in their thousands, from the old-fashioned and fragrant forms to the large, butterfly-like flowers of the present day. The giant types of these flowers, now so fashionable, leave the old-time plant almost unrecognised. There certainly is no comparison between them, and there is no more trouble or expense in growing these large-flowered stocks than is demanded by the miniature flowers of bygone days. Open stages do not appear to suit them so well as where greater humidity rises from a surface coated with gravel, shingle, or some such material that absorbs moisture. In the winter I have seen flourishing plants standing on wide shelves situated near the glass where they get all the light available. Soot-water forms a good tonic, and a sprinkling of a favoured concentrated manure once in ten days will materially help to produce healthy plants. Dried cow-manure, if powdered and mixed with the staple soil, is excellent for potting.

W. S.



AN EXTREMELY RARE HARDY SHRUB, ELLIOTTIA RACEMOSA, IN THE ROYAL GARDENS, KEW.

(*See page* 472.)

TREES AND SHRUBS.

ELLIOTTIA RACEMOSA.

IN addition to being a most interesting plant botanically, this rare deciduous shrub would soon be frequently met with in gardens it it were easy to obtain. The illustration on page 471 shows the plant to be of considerable decorative value, and it blossoms at a season (the end of July and early in August) when flowering shrubs are by no means common. Elliottia is a monotypic genus, named in compliment to Stephen Elliot, who discovered the plant growing wild in Georgia at the beginning of the last century. There are two plants in the Kew collection, both growing in a bed of Heaths, where the soil consists of sandy loam and peat. These two plants are believed to be the only specimens in Europe, and although they have been at Kew since the year 1902, this is the first time either plant has flowered.

In habit E. racemosa forms an upright shrub, with a distinct lead not unlike a small pyramid Apple or Pear tree. It belongs to the Natural Order Ericaceæ, and I should describe the Lily of the Valley Tree (Clethra arborea) as one of its nearest allies that are well known in our gardens. The flowers of Elliottia, however, are much more showy, and it is quite hardy at Kew, whereas Clethra arborea requires protection in winter. The flowers are fragrant, pure white, 1 inch across and borne in erect terminal racemes. The latter are some 6 inches to 8 inches in length, with forty to eighty (occasionally more) flowers. As can be seen by the illustration, not more than a quarter of this number are open together on a raceme. A successful means of propagation has yet to be found, despite repeated efforts at Kew and elsewhere. The fruits are unknown, there being none on the herbarium specimens, and although artificial pollination was tried at Kew and plenty of bees were attracted to the flowers, no fruits have been obtained.

CLEMATIS GLOBULOSA.

THIS plant is one of the earlier hybrids of Clematis coccinea, the other parent being C. Scottii. In habit the plant is sturdy, making in one season upright growths a yard or more in height, flowering successionally on the new season's shoots from July to autumn. The flowers are deep purple with a reddish metallic hue, solitary on terminal and axillary growths. They are pitcher-shaped, an inch or more in length, swollen at the base, narrowing towards the top, the tips of the sepals recurving, showing a white edge. In autumn the fruits also are decorative, the feathery tails of the seeds being often a couple of inches in length. Propagation may be effected by cuttings or seeds. One or two of the longest growths may be shortened in spring; beyond this no pruning is necessary. A few short, stiff Pea-sticks are desirable to support the growths, but these should not exceed a yard in height. A. O.



FLOWERING AND FRUITING SPRAYS OF CLEMATIS GLOBULOSA.

THE TOWN GARDEN.

HERBACEOUS PHLOXES.—In the majority of gardens these have been in a sorry plight this year by reason of the long-continued heat and drought, worst of all, perhaps, where the soils were very light and sandy or of a stiff clayey nature. With this much in mind, one was surprised at the really remarkable exhibit that was shown at the early September meeting at Vincent Square. Not only were these Phloxes fine in colour and large in truss; the individual flowers also afforded abundant proof that all had been well with them throughout. Upon enquiry it was found that the plants were grown on new ground, that the land had been trenched 3 feet deep and heavily manured prior to planting, and that the plants had never been watered. Added to such important items was the fact that the plants were young and vigorous when put out, and the success achieved was not so surprising, after all.

THE SECRET OF THIS SUCCESS in a year unequalled for heat and drought of long duration resolved itself into one of high or deep cultivation, and the object-lesson it revealed was too good to be lightly passed by. Over and over again has it been urged that the Phlox is a voracious feeding subject, that it delights in the richest of food, that it loves moisture and other things; and in the instance recorded we have all of these or their very near equivalents. Naturally, a large number of readers could at once say that their soil would not permit of being trenched 3 feet deep, and if this were an essential they would have to forego the cultivation of these plants. It is, happily, not absolutely essential, though very desirable. The next best thing to a deep, uniformly cool and moist soil, however, is one of a comparatively light nature which neither bakes nor cracks, and which admits of being saturated with moisture at will. In such a soil I have grown the Phlox to perfection.

THE WAY TO PROCEED.—Always so arrange the beds that their surfaces are 2 inches below the surrounding level, as in this way all the moisture supplied is retained for the use and benefit of the plants. Dig the soil as deeply as circumstances permit, and insert for preference a heavy layer of cow-manure low down. This is excellent for its moisture-retaining properties and its coolness, rather than for high manurial value.

THE VALUE OF YOUNG PLANTS cannot well be over-estimated, and one may measure his success very much in the same proportion that these are employed. To plant big woody clumps of these Phloxes that, in addition to being old and exhausted, are unable to develop is to court failure from the outset. The only apparent merit of such examples is bulk. The perfect plant would be that raised from a cutting last March and planted out when well rooted into rich ground. Such a plant produces a small truss of flowers, plenty of root-fibres, and is endowed with the latent buds and vigour for carrying on the work. Of equal importance is

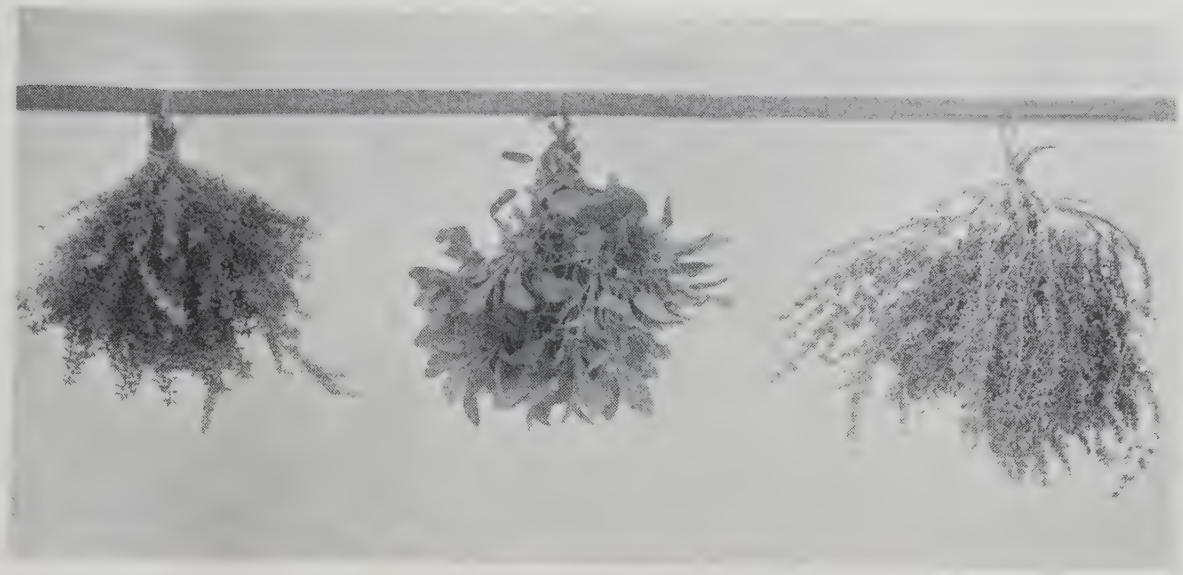
AUTUMN PLANTING; indeed, the plant referred to has virtually been prepared for this work. By planting now the roots are afforded an opportunity of starting right away, and with the soil moisture and warmth now so abundant will soon be firmly re-established. These, then, are the things to aim at if my readers would have good Phloxes another year.

PERPETUAL-FLOWERING CARNATIONS.—It will soon be time for housing the new stock of these for winter work; indeed, the time is already ripe if the flower-buds are at all prominent. Where this is not so, the plants will be better in the open enjoying the heavy night dews. Owing to the great heat and dryness, red spider is more than usually troublesome, and, detesting moisture, will hardly relish the change of weather. In the meantime it will be well to spray the plants with XL All, Quassia and soft soap emulsion, or Nicotyl Spraying Compound, each and all of these being fatal to the pest. S. N. N.

GARDENING FOR BEGINNERS.

CUTTING AND DRYING HERBS.

SWEET herbs are less often met with in our gardens to-day than they were in the days of our forefathers, who were always expected to provide a goodly breadth of the more popular kinds for culinary and medicinal purposes. The use of sweet herbs for flavouring, &c., appears to be almost a lost art, which is a matter to be sincerely regretted. Still, there are to be found gardens where a few of the more useful and popular herbs are grown in moderate quantities, but these not seldom are used in a green state, and the requirements of the kitchen during the winter months are often almost exclusively ignored. It is the purpose of these notes to encourage readers, more especially those who are beginners, to deal with the sweet herbs of the garden in a practical way, in the hope that good use will be made of the crops that are now mostly in a condition to be cut and harvested for winter use. To simplify this very interesting work it is proposed to deal with each of the more popular herbs in turn, a few of which are illustrated in the accompanying photographs.



I.—METHOD OF DRYING HERBS.

A fact that every reader may not be aware of is that herbs after being cut should be dried quickly, in order to preserve the green colour of the leaves and to retain their freshness and flavour. As soon as the matured growths are cut, they should be tied up in small bunches. The object of making the bunches small is that the dry air of the room or shed in which they are hung should the more freely pass through the bunches and make them ready for bottling. It is the custom in some large establishments to utilise special rooms where artificial heat from hot-water pipes can be turned on, and those who are so circumstanced have a distinct advantage over others less fortunately situated. The bunches should be secured to wires or cords running the full length of the room, &c., and when dealt with in this manner there is no necessity to interfere with the bunches in any way, as is the case when they are laid on shelves.

When satisfied that the leaves are quite dry—and this can be determined by their brittle character—they should be stripped off the stalks. Deal with one kind of herb at a time, and when the whole of the leaves have been stripped off they should be rubbed into a fine powder. A small kitchen sieve, or even a colander, may be utilised for this purpose, and the smaller particles rubbed through either of these utensils or anything else that will answer the same purpose. When this portion of the work is completed, the powdered herb should be placed in bottles for winter use. It is important that closely-stoppered bottles be requisitioned for this purpose, otherwise much of the flavour and aroma may evaporate, and the value of the herb thereby be lost. A few herbs that should be found in any kitchen garden worthy of the name are the following:

Mint.—The stalks of this subject should be gathered some 8 inches to 12 inches in length, choosing a dry day for the purpose. Tie in small bunches and hang up to dry as suggested. The stalks of Mint should be cut when the plant comes into flower.

Marjoram.—This herb should be gathered when the plant comes into flower and be treated in precisely the same way as Mint.

Sage.—This is a herb for which there is a constant demand, the leaves being used for flavouring and seasoning purposes. Gather the matured shoots and treat them as prescribed for Mint. A bunch of Sage is shown in the centre of Fig. 1.

Tarragon.—There are several uses to which this herb may be put. It is used for making Tarragon vinegar, the tops are pickled with Gherkins, and it is used in soups and salads. Matured growths may be cut now and dried, and subsequently the leaves may be reduced to powder and then bottled for winter use.

Thyme.—The two outer bunches in Fig. 1 represent the Lemon Thyme and the common Thyme. The shoots and leaves of this subject are very aromatic, and are used for seasoning purposes. The Lemon Thyme is especially valued, and this may be cut, dried and treated as recommended for Mint. There are many uses to which the Lemon Thyme can be put in which sweet scents are required.

Savory.—For many culinary purposes, and especially for flavouring soups, this herb should often be in request. Young shoots may be gathered as required during the summer, and at the present time the matured shoots, when in bloom, should be cut, dried and treated as advised for Sage and Mint.

Basil.—Annual herbs such as the Sweet Basil and the Bush Basil are aromatic, and for sauces and stews, as well as for flavouring soups, they are much appreciated by those who know their value. The young growths, so soon as they come into flower, are cut back to within 1 inch or 2 inches of their base, and after drying are treated as prescribed for Mint.

There are many other herbs that might be described did space permit, but the foregoing should meet the requirements of most readers. D. B. C.



2.—WHEN DRY, THE LEAVES ARE RUBBED THROUGH A FINE SIEVE AND STORED IN AIR-TIGHT BOTTLES.

AUTUMN-ROOTED FUCHSIAS.

CUTTINGS of Fuchsias inserted during the month of September root freely if placed in a closed frame or in a box covered with glass in such a structure. The resultant plants are most useful for growing in pots for the furnishing of cool greenhouses, dwelling-room windows, or flower-beds the following year, making larger specimens than those that are rooted in the spring afterwards. Select those young shoots that are free from flower-buds and cut them off with a very small heel of harder wood attached. They may be inserted near the sides of 3-inch and 6½-inch flower-pots, but I prefer to allot one to a small pot—a 3-inch—as a cutting, when

rooted, makes a better plant by the following spring than one of many rooted together in a larger pot. The single plant is in fit condition for repotting quite early in the spring, and so grows into a handsome little specimen early in the summer. When sufficiently rooted in the light, sandy compost, keep the plants in a cool stove or warm greenhouse; then they will continue to grow steadily throughout the winter months. Repotting will not be necessary before February. B.

THE ROSE GARDEN.

A FEW ROSE NOTES FROM YORKSHIRE.

THE article by Mr. Blair on "The Best Roses of the Year in a Scottish Garden," on page 450, was full of interest. I was very glad to see him speak so well of the varieties General Macarthur and M. Paul Ledé. The former is one of the very best of the bright crimson Roses for massing. Not only is it free-growing and free-flowering, but I have also found it to be mildew-proof, and that in a garden where most Roses suffer very badly indeed from the disease. Paul Ledé has the same good quality, and is practically free from mildew. It is a Rose that I have grown ever since it was first introduced, and both for its colour, its free-flowering habit and its strong growth it is well worth a place in any garden. Here in the North Riding of Yorkshire we have, I suppose, the same climatic conditions as in the colder parts of Scotland, and certainly the Roses that are well spoken of by Mr. Blair are, for the most part, the ones that do well here.

If I were to pick out one Rose more than another that the past season has seemed to suit, it would be the old favourite Mrs. J. Laing. This Rose has been splendid—better in form, in sweetness and in freedom of flowering than I ever remember it before. And this not on maiden plants, but on old bushes. Caroline Testout has, of course, done well, as it nearly always does, and is now (September 16) a perfect mass of bloom. Lady Ashtown, Countess of Derby and Mme. Abel Chatenay have also been grand, though the hot sun has soon caused the blooms to fall. In the Lyon Rose, as regards growth I am rather disappointed. I have had it since it came out, but cannot get it to grow as I should like. With me it is a bad doer, except as a standard, and in that form it does fairly well. Still, as long as one can get a single shoot with a flower it is worth growing because of its glorious colouring. J. B. Clark as a bush plant is useless; it wants to be treated as a pillar or fence Rose, and then it is splendid. Put it on a fence or trellis 5 feet to 6 feet high, treat it like a Crimson Rambler, and then in July you will have a hedge of bloom worth going many a mile to see. Frau Karl Druschki and Hugh Dickson are also Roses that give much better results if only lightly pruned. I have them planted alternately between a row of 4-feet standards, and instead of cutting back the long shoots I tie them out to the standard stems, and so form an impromptu, but none the less effective, hedge.

What wonderful colouring we get in the new Roses Rayon d'Or and Juliet! If they fulfil their present promise they will soon be first favourites among garden Roses. Some people do not care much about the latter Rose; the buff reverse of the petals, they say, makes the flower look faded. But see it in its proper setting, as a free-grown single bush plant, and most people will call it a gloriously-coloured Rose. Another Rose—little known as yet, but bound to please if once seen—is Comtesse Icy Hardegg, of the Mrs. W. J. Grant style, but brighter, fuller and of more substance; it is also wonderfully free-flowering. Mme. Melanie Soupert, beautiful when just opening, soon loses its colour. It seems to be a Rose that, to get it at its best, wants to be grown as a maiden. In Le Progrès and Instituteur Sirdey we have two Roses of a glorious deep golden colour. They always remind me of a poached egg, and they keep their colour longer than most other Roses of the same tint.

Others—dozens there are that come to one's mind when one thinks of the glorious Roses of the past summer—are the lovely salmon-tinted Mme. Segond Weber, the intense cherry red George C. Waud, the cool, ivory-tinted Mrs. Foley Hobbs, Grace Molyneux and Molly Sharman Crawford, the deep pink Countess of Ilchester and Cynthia Forde, the dual-coloured Yvonne Vacherot and Farbenkönigin, the early-blooming Dr. Campbell Hall—old friends and new friends that we look forward to year by year with eager expectancy and keen anticipation. Their flowers may have faded, but not their memory; that is as sweet and as abiding as was the scent of the Rose garden on those early July mornings when every flower, making obeisance to the rising sun, seemed to be pouring forth its grateful thanks to the Creator for all the gifts that He had bestowed upon them—their glorious colouring, their perfect form, their sweet scent.

Bedale. G. T. W.

POLYANTHA ROSES AS HALF-STANDARDS.

THE extreme showiness and beauty of our Dwarf Polyantha Roses when cultivated on the short hedge Briar, in the same form as frequently advised for heavy flowers of varieties with a tendency to droop, was never more forcibly brought before me than this year. Not only does the individual plant look much larger when so raised, but the flowers are always clean and free from storm splashes.

For many years it has been customary to plant a few standard Roses by the sides of drives and wide walks, and I cannot help thinking we should have more pleasing and certainly more lasting effect if these Roses were used upon stems of 18 inches to 24 inches. They are certainly the most persistent bloomers of any class, are quite hardy, need very little attention, and retain their form much better than is the case with the majority of the stronger-habited varieties. Nor does the wind have the same injurious effect upon their growths. I am aware we have a large number of Teas and their hybrids that are also admirably suited for this form of culture, but, as a class, those more particularly under notice remain more compact, and yet do not appear overcrowded.

Some of the Chinas are also very effective in this form, although, as a general rule, I would prefer these as dwarfs only, because of their greater dependence upon ground suckers. I can assure readers that once they grow the pick of the Dwarf Polyanthas in this form they will continue to do so. There is ample choice of colour. One or more short standards in the centre of others growing as dwarfs greatly heighten the effect of a bed, and the combination is not seen often enough. I do not propose a list of suitable varieties, as all seem equally so, and it is merely a matter of selecting the desired colours. Now is the time to note a few while they are still in bloom. Some may think there is difficulty in getting buds of sufficient size or substance, but it only needs a little more care in the insertion. I grant one will not be able to get as many buds at a time as can be secured from more vigorous growers, and there is also the need to cut away what is apparently a larger proportion of wood; but if taken directly a truss is past its best, we shall really be doing a little judicious summer pruning and thinning of the plant at the same time. A. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Herbaceous border scheme (*A. N.*).—The difficulties in the way of any general scheme from yellow to scarlet, as far as decorative gardening is concerned, are in the irregular heights of the plants and the preponderance of the first-named colour at certain seasons of the year. In June and July you might garden with Pæonies and Pyrethrums in rose and crimson, getting a touch of scarlet here and there from Geum, Lilium chalcedonicum, or Lobelia cardinalis or other sorts for early summer and autumn effects; but at other times the colour would be scarce. In yellow and the orange red shades there are plenty; such as Columbine, Trollius, Helenium, Harpalium and Sunflowers generally, with Heliopsis and Inula, provide plenty of the first-named colour. Dwarfer plants in the same colour would include Tufted Pansies and Arnebia. In orange shades Alstrœmerias, Tiger Lilies, Marigolds and Montbretias might appear; while in orange scarlet the Kniphofias or Red-hot Poker Plants would be most conspicuous. These, however, for the border you name could only be present in small numbers, and by reason of their stature few things would agreeably associate with them. A far better way would be to plant masses of colours in either small or large groups, with bold borderings of Tufted Pansies or some other useful plants.

Carnation (*H. W. L.*).—The blooms sent are of what is termed the "Painted Lady" or "Dainty Lady" Carnation. It is a very pretty variety. Several varieties are grown in collections, and seeds may be distributed from them. The two colours on a white ground are charming.

Sweet Peas (*E. T.*).—Sweet Pea F. Seymour Davis was raised by Mr. F. Seymour Davis of Farnham, an amateur, and we cannot yet say by whom the seeds will be distributed. Two sowings are always desirable, but the length of stem can be much helped by evening hosing, generous watering and feeding, mulching, and the suppression of laterals.

Saving Sweet Pea seed (*Mac*).—When the pods become brown and dry they should be gathered. It does not necessarily follow that all seeds are perfectly ripe, even when that appearance is assumed; therefore spread them out thinly in trays or other shallow receptacles and place them where they will have full light and fresh air to finish.

Begonia flower-buds dropping (*T. W. R.*).—As far as can be judged by your note, the treatment the Begonias have received has been in every way suitable. Such being the case, we are inclined to think that the main cause of the trouble is the excessive heat and dry atmosphere. Now that the weather has changed for the better, we expect that the blossoms of your Begonias will open in a proper manner.

Chrysanthemums unsatisfactory (*J. L. A.*).—Your plants are all suitable border varieties, some of them very good ones. You did quite right in removing the buds that showed early in the season. The weather has been too hot for the free growth of the plants, especially those in naturally warm positions. Cooler weather and occasional showers would have resulted in better growth. Next February propagate some cuttings, and thus raise a stock of healthy young plants; then discard the old roots. Plant in deeply-dug, well-manured soil.

Lily tank (*N. O. H.*).—You will experience considerable difficulty in keeping the standing water in your tank clean unless you have it changed once a day. Even when a stream of water runs through a tank, keeping the bulk of the water in motion, it sometimes becomes very dirty. You may grow Water Lilies, such as gladstoneana, William Falconer, William Douge and Nymphæa tuberosa flavescens in the water, also Typha angustifolia, Nuphar lutea, Iris lævigata and Zizania aquatica. Gold-fish and water-snails may also be included.

Half-hardy annuals (*R. R.*).—There is no doubt that in the majority of seasons the early planting out in May of half-hardy annuals, such as you experimented on this year, is the right course to pursue, qualified, however, by certain conditions and surroundings of the ground to be planted. For the plants to do well when planted out in so young and fragile a state, it is necessary that the soil should previously have been well prepared and brought into a friable and fine condition of tilth, so that the plants may be able to root into the soil quickly and freely.

Clematis for bedding (*Robert*).—Naturally, dwarf species of Clematis are small-flowered and unsuited to bedding, the dwarfness in the more suitable varieties being obtained by training to low-placed meshwork or trellis. Occasionally dwarfness is secured by special methods of propagation, which results in plants of about 2½ feet high, being bedded out in the forward bud state from pots. In a more permanent way we have sometimes seen them arranged in raised basket-shaped beds, the handle and the bowl of the basket being planted with the climbers, and the margin being fashioned with Ivy. For the purpose named, the Jackmanii group are the best and most free-flowering, but they are chiefly late summer and early-autumn flowering. Jackmanii superba (violet purple), Roubella (rich claret red), Snow White, and Mme. Edouard André (bright velvety red) are among the best in this section

Hardy perennials and annuals (*W. J. B.*).—Hardy perennials "not more than a foot high" for flowering in "August, September and October" would be difficult to find, the majority of dwarf flowering subjects having long since passed flowering. Plumbago Larpentæ (blue), Zauschneria californica (scarlet), Polygonum Brunonii (pink), Statice incana and Aster Finchley White are a few, however, that would be suitable. For an earlier flowering, or, say, to the end of June, there are numbers of suitable plants; but with the arrival of the Larkspurs, Phloxes, Anemones, Sunflowers and Hollyhocks the dwarf plants disappear. Of the annuals, you could not do better than select from the Chinese Asters, which afford colours in white, rose, pink, violet and others. Marigolds Orange King and Lemon Queen would be admirable, and so would late-sown batches of Godetias Dwarf Pink, Duchess of Albany and Scarlet Queen. By sowing these late in March you might get what you desire. Quite valuable, too, though, of course, not of the annual class, would be the Tom Thumb Snapdragons in white, yellow, red and crimson. By sowing in January or a little later, these should give you rich masses of colour at the time stated.

Romneya Coulteri and Lily (*C. S. C.*).—The correct way to treat the Romneya would be to cut out all the small and useless as well as old flowering wood each year in autumn, retaining only the rods that issue from the base during summer, as these usually provide a good as well as an earlier flowering in the year that follows. In your district the plant should be fairly reliable as an open border subject, but, if not, it would be better to afford it the protection of a south wall. The gable end of a greenhouse is good, more particularly if the plant could be given the angle afforded by the greenhouse and an adjacent wall. In such positions the plants suffer occasionally from extreme dryness, and should be copiously watered in times of drought. It is highly probable your plants may have suffered from the effects of the heat this year, and this should be guarded against in future. A light dressing of manure might with advantage be dug in about the plant in autumn at not less than 1 foot deep, and not nearer than 2 feet to the stem. Cut the plant down during September, and apply the manure, also a mulch, to complete the work. Your success with Lilium sulphureum is very interesting. It is one of the giants of its class, and will doubtless give an increase of flowers as the bulbs gain in strength. You might succeed even more were you to repot them at the first evidence of stem decay or ripening, this treatment affording the bulbs some weeks of extra root activity before growth begins afresh. In its finest development it is a grand Lily, delighting in cool greenhouse treatment or partial shade, and in a soil mixture of half loam and half sandy peat with good drainage. Your description of the Lily from Cape Town suggests a species of Crinum. Could you not send a flower-bud, together with a portion of the leaf, so that we may identify it?

TREES AND SHRUBS.

Cedrus Deodara producing cones (*E. S. T.*).—It is not uncommon for Cedrus Deodara to produce cones in some parts of the country, though in other places it bears cones shyly. It cannot, however, be said to cone so freely as either C. atlantica or C. Libanii. Cones are more frequently produced in the South and West Counties than in the East and North.

Treatment for Japanese Quince (*East Sheen.*)—We should advise you to leave your plant of Cydonia japonica alone until next year, for blossoms may appear in the spring. If, however, no flowers are borne, cut the plant well back. It is possible that it did not become very well ripened last year on account of the cold, wet summer; but after the sunny summer of 1911 the wood ought to ripen well and bear flowers profusely. The most suitable time to prune this shrub is as soon as the flowers fade in spring. Hard-pruned plants often bloom more freely than those which were left unpruned.

Magnolia not flowering (*L. B.*).—The Magnolia about which you make enquiries is M. grandiflora. We should imagine that it is growing too vigorously to bloom, and would suggest that you stop the manure for a few years. You may also try a little judicious root pruning, though this must be done with great care, for Magnolias do not like much root disturbance. Fork the soil away from the roots at a distance of 5 feet or 6 feet from the tree, and cut a few of the stronger roots through with a sharp knife. The wounds should be protected with coal-tar before the soil is filled in again. In Cornwall this species would do better in the open than against a wall.

Injury to Lilac leaves (*Huntly*).—From the specimen of Lilac shoot which you send for examination, we can only suggest that drought is the cause of the leaves shrivelling up, for there is nothing to be seen in the way of a disease which would account for it. Lilac bushes are suffering very badly from drought in many parts of the country this year. As you say that the same thing occurred last year, it may be that the stems near the base are attacked by some fungoid disease, and that is having an ill-effect on the leaves. In such a case the fructification stage of the fungus will soon be noticeable about the base of the stems attacked. Such branches should be cut out and burnt. We are, however, inclined to believe that drought is the cause of the present condition.

ROSE GARDEN.

Hedges of Roses (*E. B.*).—There are several fine autumn-flowering Roses suited to your purpose, and we have pleasure in naming a few. They are Alister Stella Gray, Grüss an Teplitz, Longworth Rambler, Fellenberg, Bardou Job, Aimée Vibert, Aimée Vibert à fleurs jaune, Zepherin Drouhin, Gloire des Rosomanes, Trier, Climbing Cecile Brunner, La Tosca, Sarah Bernhardt, Lady Waterlow, Mrs. Stewart Clark, Boule de Neige, Irish Beauty, Irish Glory, Mme. Wagram, François Crousse, Mme. H. Leuilliot, Johanna Sebus, Soleil d'Or, Soleil d'Angers, Gottfried Keller, Stanwell Perpetual, common China, Armosa, Fabvier and Comtesse du Cayla. Try to mix all these if possible, for they are delightful Roses and would add greatly to the beauty of the hedge. Although some are not very tall at first, they will soon run in among the Penzance and other Briars, and appear here and there crowned with fine clusters of bloom. You will see this list comprises many tribes, but we think you would find the China Roses as a class rather unsuitable.

Artificial manure for Roses (*H. L. R. S.*).—Roses are very partial to bone-meal, and this can be given with much advantage when making new Rose-beds. It should be applied to the upper soil, mixing it well with the soil as trenching proceeds, and if some basic slag is given to the lower soil, you will provide the Roses with some good lasting stimulants.

Roses of the type of Gruss an Teplitz (*E. S. C.*).—You are well advised in planting Roses of this type as free bushes, for they make a glorious display and are most effective when their branches are covered with bloom. Many people find fault with Grüss an Teplitz because of its vigour, and, of course, it is unwise to plant it among dwarf Roses, thinking that it will remain dwarf; but when treated as a pillar or free bush it is grand. Roses of the same character would be Alister Stella Gray, Lady Waterlow, Lina Schmidt Michel, Sarah Bernhardt, Zepherin Drouhin, Avoca, Ards Rover, Ards Pillar, Ards Rambler, Rosette de la Legion d'Honneur, Aimée Vibert à fleurs jaune, Longworth Rambler, Fellenberg, Gustave Regis, Bardou Job, Johanna Sebus, Gloire des Rosomanes, Francois Crousse, La France de '89, Mrs. Stewart Clark, J. B. Clark, Billiard et Barre, Trier and Juliet. Some of the newer ramblers that would grow as free bushes are American Pillar (carmine pink), Newport Fairy (pink, white eye), Graf Zeppelin (cerise), Fairy (white), Bagatelle (blush white), Sheilagh Wilson (scarlet carmine), Louis Barbier (coppery red) and Hildenbrandseck (vivid carmine).

Roses damaged by insects (*J. P.*). — The yellowish bud is the result of the cuckoo spit or frog-hopper, which appeared early in June, and which has been very troublesome this year. Probably an ordinary caterpillar had attacked the other bud. Doubtless you have noticed a frothy substance upon the Roses. Inside this froth there is a yellowish white insect, which does all the mischief, for the insects kill the buds by constantly sucking the sap. Nothing but spraying will be of any use; but before spraying you must free the insects of the froth, and to do this, forcibly syringing with plain water is best. Then follow with a spraying of nicotine or Tobacco wash, the recipe for this latter being as follows: Tobacco, ½lb.; soft soap, 1lb.: soft water, 12 gallons. Steep the Tobacco in water for some days, then allow it to simmer over a fire for an hour, pour off the liquid, well crush and proceed again as before, and add the second extract to the first. This extract may then be mixed with the dissolved soft soap. Spray a few times with this liquid, and we think you will check the pest. Burning an inch or so of the surface soil is also a good plan, as by this means many insect pests are destroyed.

Roses for arches (*Rosery*).—Good crimson Roses for the arches would be Francois Crousse, Grüss an Teplitz, Reine Marie Henriette and Waltham Climber No. 1. These, we understand, you already possess; but we think you should add Excelsa, the Crimson Dorothy Perkins and, if possible, Dr. Rouges, as you desire the flowering period to last as long as possible. It would be best to plant two Roses to each arch, and, although we prefer one variety, you could, in order to obtain a greater assortment, plant two different varieties, adding Climbing Cramoisie Supérieure and Reine Olga de Wurtemburg or Hiawatha. Good blue Clematises are Jackmanii, Blue Gem, purpurea elegans, Gipsy Queen and Star of India. The two pink arches could be obtained by planting Roses Dorothy Perkins and Climbing Caroline Testout. Two other beautiful sorts would be Tea Rambler and Tausendschön or Newport Fairy, this latter a delightful Rose like a pink Hiawatha. Clematises for these arches should be Nellie Moser, Marcel Moser, Mrs. Hope and The Queen. Yellow Roses for the two remaining arches could be selected from *Gardenia, *Shower of Gold, *Rêve d'Or, *Goldfinch, Alberic Barbier, Electra, Alister Stella Gray, William Allen Richardson and Celine Forestier, those varieties marked with an asterisk being preferred. Clematises for these arches would be white or creamy white, such as Henryii, lanuginosa candida, Mrs. George Jackman and Lucie Lemoine.

FRUIT GARDEN.

Peach Barrington: Stone decayed (*A. H.*).—This Peach when well grown attains a large size, but the specimen you sent was abnormally large. Normally, the stone of the variety is small, with a pointed end, and the surface most rugged. The characteristics are the same in this fruit, but the stone is twice the size it should be. In parts it is decayed and brittle, and the kernel pulpy, soft and small. The fruit was not bitter, as you suspected it would be. We think that the cause of the disease is of the same nature as that which produces split stones in Peaches. There are conflicting opinions as to what causes this malady. The majority incline to the belief that it is caused by the faulty and imperfect fertilisation of the flowers, by reason of the scarcity and weakness of the pollen, or by its ineffective distribution. You should take the precaution next year to help artificially in the distribution of the pollen, to make sure that it comes in effective contact with the stigma. We are obliged to you for sending us the specimen, as the case is unique in our experience.

Grapes not ripening (*R. C. R.*).—The Vine when in health delights in abundance of light, and cannot have too much sunshine. A little air should be admitted all night, both on the front and top ventilators, during summer. The cool temperature and free circulation of air rest the Vines after the heat of the day. Vines should never be syringed after the fruit is set; but we do not think that syringing has been the cause of retarding the ripening of the fruit. Too little air and too much moisture have been the cause of the berries splitting, and consequently going bad. We think that the chief cause of the mischief in your case has been red spider. It is impossible to finish Grapes off satisfactorily and expeditiously when the foliage has been weakened by an attack of red spider. Should you have a similar attack next year, the best way to deal with it in the initial stage is to sponge the affected parts with warm soft soap and water.

Strawberry-beds (*Mrs. Lascelles*). — The best thing to do with plants infested as yours have been is to

cut away all the outside leaves round the lower margin of the plants, and then to spray what foliage remains with Abol Insecticide, mixing half a pint of Abol in four gallons of water, as per instructions on each jar. Spray the plants again in spring shortly before they come into bloom, and the fungus will be killed. As soon as the first spraying has been finished, have the ground round the plants thoroughly hoed and cleaned, and burn both the weeds and leaves which have been cut off. Then give the ground round the plants a good sprinkling of bone-meal (say, a small handful to each plant), fork it in 2 inches deep, and give the plants a thorough watering with weak manure-water. Afterwards give the ground a surface dressing over the roots of rich rotten manure 3 inches deep, leaving it on during the winter and spring. If you do this, we shall be greatly surprised if you are not rewarded next year with a heavy crop of excellent fruit. We would advise you to supplement this treatment of the old bed by planting a new one some distance away from the old bed, using strong, well-rooted young plants, not from your own garden, but from a distance away, stipulating that the young plants are clean and free from all disease.

KITCHEN GARDEN.

Bending Onion tops (*Regular Reader*).—The tops of the Onions in ordinary seasons will die down naturally when the bulb has done growing and is fully ripe, but it will be generally found that among the bulbs are some thick-stemmed ones which do not properly ripen, but begin to grow. It is the stems of these that must be bent down, to arrest growth and to compel ripening. The proper time to do this is when the Onions have done growing and decay of the foliage sets in.

Unripened patches on Tomatoes (*Enquirer*).—The presence of unripened patches in Tomatoes is the result of an insufficient supply of potash. Water the plants with a solution of sulphate of potash once or twice a week, using half an ounce to the gallon of water.

MISCELLANEOUS.

Wheat-ear Carnation (*T. M. E.*).—The Wheat-ear Carnation is a sport from the ordinary form, and when once a plant of Carnation produces this form it rarely reverts to the ordinary form, though occasionally a flower is produced. The Wheat-ear appearance is due to the continued production of the bracts which are formed just below the flower, and sometimes, as in the present case, of the calyx as well. After all, it is little more extraordinary than the multiplication of the petals in an ordinary Carnation flower.

Injury to Asters (*W. S.*).—The Asters are infested with eelworm. We should advise well liming the soil this winter.

Larvæ to name (*P. V. O.*).—The grubs are those of the rat-tailed maggot. This is in no way harmful. It hatches out into a rather large two-winged fly, usually called the drone fly.

Bitter taste in Marrow (*E. P.*).—The cause of the bitterness in the Custard Marrow is the fungus disease by which the plant has been attacked. If this is the only plant affected, you had better pull it up by the roots and burn it, or the disease may spread to the healthy plants.

Weed in Lily pond (*K. B.*).—We are afraid that there is really no way by which you can keep the water in your pond clean without injury to the fish. By adding copper sulphate to the water at the rate of 2½oz. to 10,000 gallons of water it is possible to keep the weed in check, but the poison would probably injure the fish, though it has no harmful effect on Water Lilies and other aquatic plants if used at the strength mentioned above. All you can do is to keep the water skimmed over to remove as much as possible of the weed or scum.

Green scum in Lily tank (*E. Rose*).—The weed in your tank may be checked by introducing copper sulphate to the water at the rate of 2½oz. to 10,000 gallons of water. You had better not water other plants from the tank for several days until fresh water has run in. It is doubtful whether you will succeed in cleansing the tank thoroughly this year, and you had better remove the plants and soil and well scrub the tank next winter. The weed has probably been introduced by bringing the Water Lily in from the river. It is not likely to hurt the Nuphar.

Injury to Wallflowers (*Edwin Pierce*).—The Wallflowers are attacked by the fungus Personospora parasitica. This fungus attacks many plants belonging to the same family, including Cabbage, Stock, Shepherds' Purse, Charlock and so on, and forms resting spores in the tissues of the plant it attacks, which remain alive in the soil for some time ready to attack new plants when the opportunity arises. All attacked plants should be destroyed by fire, and cruciferous weeds should be kept down. The healthy plants may be sprayed with Bordeaux mixture as a precaution against infection. Soil on which no cruciferous plants have been grown for some time is best on which to raise seedlings of Wallflowers.

Manures for garden (*Learner*).—The value of any kind of manure depends on the percentages it contains of real plant-making elements, or food. These elements or constitutents are, primarily, potash, phosphates, or phosphoric acid and nitrogen. If you can purchase from any artificial manure manufacturer these constituents in a fairly pure state, well crush and mix them on a hard floor, then employ them in due proportions as a dressing, you will be doing the very best you can without animal manures. Most certainly good half-decayed and well-cared-for animal manures, having in them a fair mixture of straw or fibre, are the best to employ; but where these cannot be had, then for almost all ordinary purposes get the three constituents above named in equal parts and use them.

Names of plants.—*F. Lurani.*—Rosa indica.——*Miss Down.*—Rose Paul Ledé.——*A Garden Reader.*—Rose Zepherin Drouhin.——*Mrs. E. Nix.*—American Wild Bean or Ground Nut (Apios tuberosa).——*T. J.*,—Datura Stramonium (the Thorn Apple).——*F. E. W.*—1, Calamintha Clinopodium; 2, C. officinalis; 3, Gentiana Pneumonanthe.——*G. T., Watford.*—1, Cornus alba; 2, Ceanothus Gloire de Versailles; 3, Olearia Haastii; 4, Polygonum cuspidatum; 5, Asperula odorata; 6, Corydalis lutea.

Names of fruit.—*Vine.*—1, Black Hamburgh; 2, Black Alicante.——*Constant Reader, Northchurch.*—Bess Pool.——*Miss Down.*—Tower of Glamis.——*W. S., Hawick.*—Apples: 1, Mank's Codlin; 2, Duchess' Favourite; 3 and 6, Worcester Pearmain; 4, Lord Derby; 5 and 7, Gold Medal; 8, Hawthornden; 9, Improved Keswick Codlin; 10, Bramley's Seedling.——*T. B., Lancashire.*—1, John Apple; 2, Lord Suffield.——*J. B., Haddington.*—Apples: 1, New Hawthornden; 2, Tower of Glamis; 3, Margil; 4, Blenheim Orange; 5, Hall Door; 6, Fraise d'Hoffinger; 7, Old Hawthornden; Plum, Black Diamond.——*S. E. L., Hants.*—A fine fruit of Ribston Pippin.——*R. G. H., Newbury.*—1, Cox's Orange Pippin; 2, Blenheim Orange; 3, Alfriston; 4, Belle Dubois; 5, The Queen; 6, Worcester Pearmain. Splendid fruits.——*Mrs. E. A., Cornwall.*—Apples: 1, Rambour Franc; 2, Royal Russet; 3, Allington Pippin.

SOCIETIES.

EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a good number of members supporting the president (Mr. L. Smith) at the September meeting of this club. The weather report for the past month, supplied by Mr. John H. Willis, revealed some phenomenal figures in temperature and sunshine. The exhibition tables were well filled in all sections. Of the more prominent of these a word of special praise is due to Mr. F. Williams, gardener to Louis Tillett, Esq., Catton, for his fine pot of Cypripedium insigne. Mr. W. Shoesmith, gardener to F. W. Harmer, Esq., Cringleford, also staged a very good Cypripedium. Mr. D. Howlett, Thorpe, showed some fine Dahlias, securing the principal prizes, and also an award of merit for a new pink seedling Pæony-flowered variety. Mr. S. Hunt brought a grub which is attacking Narcissus bulbs and those plants allied to it, causing serious loss. Mr. C. H. Fox, gardener to Lady Mansel, Old Catton, read a paper upon "Stove and Greenhouse Flowering Plants." The paper was not given for its botanical value, the writer said, but to give practical experience upon some of the choicer subjects which should be grown for table and other decorations. Throughout it was practical, and gave cultural hints on every side of the plant's treatment. A large number of members took part in the educational discussion which followed.

MOFFAT HORTICULTURAL SOCIETY.

THE annual show was held at Moffat on September 15, and again proved a successful event, although there was a small reduction in the number of exhibits. In the quality there was no falling off, and in the case of Sweet Peas and Apples these were better than usual. In both the open classes and those confined to amateurs there was generally a strong competition, and in the former Mr. R. A. Grigor, gardener to T. Rankin, Esq., Dalswinton, was the principal prize-winner.

In the classes for pot plants, the leading sorts were Begonias and Zonal Pelargoniums, of which good specimens were shown. For greenhouse plants in flower Mr. J. M'Kay, Craigieburn, was first, Mr. L. Fraser, Craigielands, occupying a similar position for foliage plants. Mr. J. Hamilton led for Fuchsias; Mr. J. Henderson, Elmbank, Dumfries, for early Chrysanthemums. There was a nice competition for Ferns, Mr. R. A. Grigor winning with greenhouse varieties; Mr. W. Murray, Ardenholm, with hardy Ferns; and Mr. Grigor with exotic Ferns. Mr. J. Raphel was first with Selaginellas. For Begonias Mr. M'Kay was first; Mr. Murray led with Zonal Pelargoniums; and other first prizes were carried off in this section by Mr. Grigor, Mr. J. Hamilton, Mr. M'Kay, Mr. J. Raphel and Mr. L. Fraser.

In the cut-flower section the Sweet Peas were very good, and here Mr. C. G. M. Murray, Cowhill Tower, won with a fine lot, the second being a good grower in the person of Mr. R. A. Grigor. Dahlias were well shown, Mr. J. Adamson, Mr. D. Whitelaw, Mr. C. Murray and Mr. R. Porteous winning with these. The leading winners in the other classes were Mr. J. Raphel, Mr. Porteous, Mr. L. Fraser, Mr. W. Murray, Mr. J. Hamilton, Mr. J. Renton, Mr. A. Rankine, Mr. R. A. Grigor, Mr. James Henderson and Mr. J Brown.

In fruit the leading prize-takers were Mr. C. G. M. Murray, Mr. W. Lockhart (Wyseby), Mr. J. Brown, Mr. J. Henderson, Mr. J. M'Kay, Mr. R. Porteous and Miss Clark, with the exception of the Grape classes, in which Mr. Grigor took all the first prizes with excellent bunches.

In the vegetable section Mr. C. G. M. Murray led with the collection, Mr. R. A. Grigor being second. The other first prizes in the leading vegetable classes were won by Mr. W. Murray, Mr. J. Lockhart, Mr. J. M'Monies, Mr. R. A. Grigor, Mr. J. Harkness, Mr. L. Fraser, Mr. R. Porteous, Mr. C. G. M. Murray, Mr. J. A. Renton, Mr. T. G. Grierson and Mr. J. Henderson. The prize for the best collection of vegetables grown by amateurs was won by Mr. James Bruce.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE executive committee of this society held its first meeting of the season at Carr's Restaurant, Strand, on the 18th inst., when Mr. Thomas Bevan occupied the chair. The Sydenham and District Horticultural Society was admitted in affiliation, and after some discussion on the proposals concerning the future of the Crystal Palace, it was resolved that Mr. Bevan and Mr. R. Witty should be the National Chrysanthemum Society's delegates at the meeting to be presided over by the Lord Mayor. An interim financial report was presented showing a substantial balance in hand. As a result it was unanimously resolved that the prize-money awarded at the October and November shows should be paid over to the winners immediately after those shows. The recently-published report of last year's conference was announced, and that there had been many expressions of approval relating to it. Affiliated societies especially were pleased at the favourable terms upon which the parent society had arranged to supply it to them. The report of the floral committee was then received. Mr. D. B. Crane was again appointed chairman of that body, and the following members were appointed as judges of the miscellaneous exhibits at the October show, viz., Messrs. Crane, Hawes, Curtis and Ingamells. The schedule committee's report announced that the conference for 1911 would take place on December 4. Two papers will be read, one at 7 p.m. by Mr. F. W. Ladds on "The Culture of Disbudded and Spray Blooms," the other at 8 p.m. by Mr. Percy Cragg, entitled "Soil Preparation and the Use of Some Chemical Foods." A sub-committee was appointed to carry out the details of the annual dinner, which takes place at the Holborn Restaurant on November 23. This was followed by the election of the judges for the October and November shows. Twelve new members and one Fellow were elected, and after a few words from the chairman on his visit to the Turin and Florence shows in May last, the meeting broke up having completed the full evening's agenda.

NORTH OF ENGLAND HORTICULTURAL SOCIETY.

ON Wednesday, September 20, the above society held its monthly meeting in Emmanuel Hall, Leeds. All of the space was occupied by exhibits, and, taking everything into consideration, it was one of the best held under the society's auspices. The following awards were made:

ORCHID COMMITTEE.

Silver medals to Messrs. Mansell and Hatcher, Rawdon, for a nice little group of Orchids with many well-grown flowers; and Messrs. E. V. Low, Hayward's Heath, Sussex, for a group of Orchids.

Vote of thanks to Messrs. A. J. Keeling and Son, Bradford

Large bronze medal to G. W. Jessop, Esq., Rawdon, for an interesting group of Orchids.

Second-class diploma to Cattleya Adula E. V. Low, from Messrs. E. V. Low, Hayward's Heath.

Cultural commendation for Angræcum infundibulare.

FRUIT AND VEGETABLE COMMITTEE.

Large gold medal to Messrs. Sutton and Sons, Reading, for a large stand of vegetables. This was remarkably fine, and well worthy of the award given it.

Gold medal to W. D. Cliffe, Esq., Leeds (gardener, Mr. H. Hague), for fruit and vegetables. Fruit was the outstanding feature of this exhibit.

Large silver-gilt medal to Messrs. W. Lawrenson, Yarm-on-Tees, for Apples, Pears, Carnations and Ferns.

Large bronze medal to the Hon. Mrs. G. W. Winn, Walton Hall, Wakefield (gardener, Mr. A. Allison), for Apples.

Bronze medal to Miss Maxwell Stuart, Tadcaster (gardener, Mr. J. Haynes), for a good exhibit of Apples.

Votes of thanks to Mrs. Fawcett, Westwood, Leeds, for Apples; and Messrs. W. Lawrenson for seedling Apples.

PLANT AND FLORAL COMMITTEE.

Large gold medal to Messrs. Gibson and Co., Leeming Bar, Bedale, for hardy flowers, which were very fine considering the dry weather existing in the North.

Large silver medal to Messrs. Harkness and Son, Bedale, for hardy flowers.

Silver medals to Messrs. E. J. Batchelor and Son, Harrogate, for herbaceous flowers, annuals and Roses; Messrs. Seagrave and Co., Sheffield, for a large group of fine hardy Chrysanthemums; and Messrs. Young and Co., Cheltenham, for Carnations.

Large bronze medal to Messrs. J. Backhouse and Son, York, for a group of very fresh-looking hardy flowers, including a fine lot of Colchicum speciosum.

Bronze medals to Messrs. W. Jarman, Ripon, for Dahlias; Messrs. Clibran and Son, Altrincham, for hardy Chrysanthemums; and Messrs. S. Broadhead and Son, Huddersfield, for hardy flowers and alpines.

Vote of thanks to Messrs H. H. Rigg, Baildon, for Roses.

First-class diploma to Colchicum speciosum album, from Messrs. J. Backhouse and Son, York.



SUTTON'S RICH SALMON PINK CYCLAMEN.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

BELLADONNA LILIES.

THE present year, because of its unprecedented heat and dryness, will long be remembered as one favourable to the flowering of these plants, and the more so since nothing better than abortive, late-appearing scapes have rewarded cultivators in districts widely apart during several preceding years. Impatient of removal or disturbance of any kind, and slow to recover therefrom, these South African bulbous plants, accustomed in their native haunts to brilliant and long-continued sun-heat, have not in this country, during recent years at least, had their wants exactly supplied. That their leaf-growth has been abundant, none will deny, but it has been far too long retained and the ripening process slow, even though the plants have been accorded the warmest positions our gardens afford and covered with lights to hasten maturity. Even in favoured Southern or South-western gardens near the sea, and where in ordinarily warm summers these things succeed quite well as border plants in the open, their flowering has been all too sparse, a spike or two appearing perhaps instead of a like number of dozens.

For the nonce, however, a different tale has to be told, seeing that the tall, stately flower-crowned shafts have been both abundant and good. And to see these in their best garb, ruddy or glaucous of stem and producing at 2 feet or 3 feet high a perfect bouquet of flowers, now of richest or deepest rose, or anon of pale pink, some exquisite in their spicy fragrance, while others are less so characterised, renders their presence in the garden welcome and almost unique at any season of the year. Their only drawback or defect—call it what you will—other than the uncertainty of flowering already referred to is that of flowering after the leaves have disappeared, which is productive of a certain amount of nakedness. At the same time, so welcome is the touch of colour their flowering provides, and so prolonged the display where a few established bulbs exist, that the cultivator can afford to lose sight of that for the time being. In early autumn the hardy plant garden is not rich in the colours these Belladonna Lilies provide, hence they are worthy of all the more encouragement at our hands.

Of their rich variety and precious colouring visitors to the Royal Horticultural Society's meeting on September 12 had ample demonstration, for they came from Gunnersbury, Isleworth, Colesbourne and St. Albans, and afforded an exhibition in which wide colour-range, stature and fragrance were prominent characteristics. In some of them—more particularly, perhaps, in their exceeding floriferousness and the disposition of the flowers in the umbel, the latter of more rounded, Clivia-like formation, with the flowers horizontal or sub-erect—there were indications either of wide geographical variation or hybrid origin. This was notably the case with those sent from Mr. Leopold de Rothschild's garden at Gunnersbury and from Mr. Worsley, Isleworth, the twain being obviously akin and of great garden value. A further marked feature—and there may have existed others, since my inspection of them was cursory rather than exhaustive—was the greater length of the pedicels, an essential in the case, seeing that the finer umbels referred to contained some thirty flowers and buds. And it is just these combined attributes that gave to the varieties to be henceforth known as Amaryllis Parkeri and A. Parkeri alba an importance of their own, at once imposing, grand, unique. These assuredly are garden plants of the first class, and, because of their high excellence and the important part they are likely to play in gardens in the future, merit something more than is given to a new Dahlia or a Carnation, which may be superseded in a year or two at the most.

Other important varieties of Amaryllis Belladonna are known respectively as A. B. maxima (which secured an award of merit in August, 1901), A. B. blanda, A. B. kewensis and A. B. alba, all of which are good and distinct, the last-named being the least frequently met with. The three former are characterised by a greater vigour, freedom of flowering and richer colour than the typical kind, whose dwarfer scapes bear flowers of paler hue—a pink and white complexioned flower, delicate *per se* and beautiful to look upon.

Then, in addition to the above-named, there were present at the same meeting Brunsdonna Sanderæ and B. S. alba, hybrids said to be the result of crossing Brunsvigia Josephineæ and Amaryllis Belladonna. The flowers of these hybrids have a strong leaning to the last-named species, though they are much more freely produced than in any variety known to me. The decidedly longer and more

extended pedicels, and which characterise Brunsvigia, are suggestive, however, of hybrid influence, though the one-sided formation of the umbel and the general disposition of the flowers differ but little from the typical Belladonna Lily. But despite the fact that in these instances the hybrid influence is not marked by great distinctness, there is considerable satisfaction in the knowledge that the hybridist is constantly alert, and, that being so, the day is sure to dawn when greater things than those we now know of will be revealed. Seedling-raising on these lines, however, is slow work indeed, the years of waiting long, the harvest not always of the best. What is really needed is a small (or large) school of youthful hybridists to take up such work in real earnest. Much might be accomplished in a single lifetime, seeing that to-day the available "plant"—working material—is greater than ever before.

Culturally, these Belladonna Lilies are not difficult, as this term is usually employed. That they are erratic and uncertain in their flowering we all know and admit, and all the more freely since we know how difficult—aye, impossible often enough in this country—it is to satisfy the insatiable bent of these sun and warmth loving subjects. By planting their bulbs at the base of a greenhouse wall having a south aspect, where they benefit as much by the reflected heat as by the warmth the position affords, and by letting them alone, despite the fact that flowering spikes during the early years of their planting are few and far between, we are doing what we can in this direction. To afford them a loamy, well-drained and moderately rich soil, to encourage by watering or by liquid manures an early and abundant leaf-growth, and to ensure, so far as is possible, a period of rest at once decisive and complete immediately following maturity, is the part the cultivator must play if he would enrich his garden with one of the best of the floral treasures of the early autumn months. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 9.—United Horticultural Benefit and Provident Institution's Committee Meeting.

October 10.—Royal Horticultural Society's Meeting and Exhibition of British-grown Fruit, Vincent Square, Westminster (two days). Lecture at three o'clock on the first day by Mr. H. Hooper, entitled "Science and Practice: Their Relation to Horticulture." Horticultural Club House dinner at Hotel Windsor, Victoria Street, Westminster. Lecture on "Rhododendrons" by Mr. C. P. Ruffill.

October 11.—East Anglian Horticultural Society's Meeting. Affiliated Mutual Improvement Societies' Annual Meeting and Conference at Royal Horticultural Society's Hall, Vincent Square, Westminster, at 3 p.m.

October 12.—Société Nationale d'Horticole de France (Paris) Exhibition.

Our Special Rose Number.—Now that the planting season is about to commence, we shall devote our next issue mainly to Roses. A number of well-known Rose specialists, including the Rev. J. H. Pemberton (president of the National Rose Society), Mr. George Paul, V.M.H., Mr. George Prince, Mr. S. Dickson and "White Rose" are writing articles for this number. The illustrations, which include several taken in the Rev. J. H. Pemberton's garden, will show the Rose in many interesting phases, and there will also be a coloured plate of that wonderful new Rose Rayon d'Or. The price of this special, enlarged number will, as usual, be one penny.

Crops in Great Britain during 1911.—The preliminary statement regarding the crops of Great Britain, and compiled from the returns collected on June 5, has just been issued by the Board of Agriculture. Of those crops of interest to gardeners, Potatoes occupied an area of 572,014 acres as compared with 539,684 acres in 1910, an increase of 32,330 acres. No less than 65,179 acres have this year been cropped with Cabbages, an increase of 3,250 acres over the area devoted to this crop last year. Carrots and Onions were grown on 11,248 acres and 4,221 acres respectively, the increase of the acreage of the former over that of 1910 being 520 acres and of the latter 183 acres. Small fruit, however, occupied 5 acres less than it did last year, the area this year being 84,304 acres. Orchards comprised 250,669 acres, or 4 acres less than in 1910. It would appear, judging by the above figures, that the planting of small fruit and orchards in this country has, for the time being at least, reached its zenith.

Potatoes in South Africa.—The Board of Agriculture and Fisheries desire to give wide publicity to the new regulations issued by the Government of the Union of South Africa whereby Potatoes will be admitted from any part of the British Isles, provided that each consignment is accompanied by a declaration from the consignor stating where the Potatoes were grown, and also a certificate from the Board of Agriculture and Fisheries declaring that so far as they are aware no outbreak of wart disease (black scab) of Potatoes has occurred within a radius of five miles from the locality where the Potatoes were grown. Applicants for the Board's certificate must forward a declaration, signed by the grower of the Potatoes, stating where the Potatoes were grown and giving the name of the parish and county in which the farm is situated. The grower must also declare that no case of wart disease has occurred on his premises.

The Carnegie Dunfermline Trust and school gardens.—With the view of encouraging horticulture among the young, the Carnegie Dunfermline Trust have for some time given prizes for bulb-growing in the burgh schools, and they have in many ways done much to develop the taste for flowers and gardens among the children, in addition to their invaluable efforts for promoting horticulture among adults. In combination with the Dunfermline School Board, they are about to establish school gardens in different parts of the burgh, and some time ago they arranged that their lady gardener, Miss Robbie, should proceed to America to study the plans in operation there. Miss Robbie has now returned, and the provision of the gardens is to be made, three or four being provided in different parts of the burgh as a beginning. In view of the large extension of Dunfermline recently carried through, the horticultural operations of the trustees will be greatly increased, and the new portions of the burgh will greatly benefit.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Raising Daffodils. — Referring to the letter of Mr. Lemesle Adams on this subject in THE GARDEN of September 9, in which he suggests that many would-be raisers are deterred from sowing Daffodil seed on account of the trouble of sowing in boxes, frame protection, watering and weeding, we beg to say that Daffodil seed may safely be sown in the open ground, provided a slight protection of leaf-mould or Cocoanut fibre is placed on the seed-beds before severe weather sets in. We adopted this method more than ten years ago, and find that the seed germinates well and gives us a good percentage of flowers in the third year, or about two and a-half years from the time of sowing.—ALDERSEY AND MARSDEN JONES, *Tilston, Malpas, Cheshire.*

Snowdrops for Christmas.—Now that the bulb season is here, most of us are making our plans for Christmas flowers. One of the most effective and pleasing we can have is Snowdrops on our table on Christmas Day. These can easily be had in bloom for the festive season if planted now, using either ordinary sphagnum moss or bulb fibre and one of the green bulb bowls or a fancy gipsy basket. I prefer the basket, and find these dainty flowers do admirably if grown cool. Fill the basket with moss or fibre, being careful to have some small pieces of charcoal intermixed. Push the bulbs into the moss or fibre so that they are just covered, damp well and stand in a cool place in the dark for six weeks; then remove to the light and keep cool until the flower-buds appear, when they can be brought into a warm room to expand the flowers. I would advise readers to try this, and they will be pleased with the result. The cooler the treatment the better, and just keep the moss or fibre damp (not wet) by sprinkling water on with the hand occasionally.—H. KITLEY.

The International Horticultural Exhibition admission charges. — As the proposed charges for admission to this exhibition have aroused so much comment and criticism of an adverse kind, it may not be without interest to learn that hints have been given to the effect that the proposed outrageous admission charges are but tentative and open for revision. I trust that is true. It would be a great drop from 40s. to 10s. for admission on the first day. Still, even 10s. is a big sum to pay for such privilege in these days of shilling admissions to the most magnificent exhibitions the world has ever seen. All the same, I do not think anyone would complain of a 10s. admission charge on the first day of the show, or if Fellows of the Royal Horticultural Society were, in lieu of the loss of their so far free Temple Show, to be enabled to purchase tickets on the first two days at half price, viz., 5s. and 2s. 6d. Then, if the general charge for the third day was 2s. 6d. and all *bona fide* gardeners or nursery employés were allowed to purchase tickets for that third day for 1s., the pockets of all classes would be met. Presumably on all later days the charge for admission would be 1s., and if 50,000 such sums were paid, that would total up to £2,500, a goodly sum, although the numbers would more probably be 100,000.—B. B.

An easy way of destroying wasps' nests. — I wonder how many gardeners have overlooked the use of Vaporite for destroying the

nests of wasps? The operation is a very simple one. Having placed a stick as near to the entrance of the nest as one dare go in the daytime, wait until the evening, when most or all of the wasps are at home; then put from half an ounce to an ounce of Vaporite into a watering-pot containing about two quarts of water. Mix well and pour it into the hole, stopping it up immediately with a wisp of grass or some such material as will keep in the fumes. No digging out is necessary, as the fumes are lasting and quickly destroy any young wasps that might hatch out a few days afterwards. —G. F. M., *Newland Park, Chalfont St. Giles.*

The National Rose Society's gold medal awards.—The recent refusal of the judges at the autumn show of the National Rose Society to award its gold medal to M. Pernet-Ducher's grand Rose Sunburst demands, I think, a word of protest against a rule that seems very arbitrary. The schedule states: "Not fewer than six trusses of any new seedling Rose or distinct sport (either not yet in commerce or not first distributed earlier than November, 1910); a *ground plant of the variety must also be shown.*" It seems that the award was withheld simply because the plant that was shown had been grafted in a pot, although it had been planted outdoors from the pot for some weeks. Now, I take it the rule demanding a ground plant was merely instituted in order to see the habit of growth, so that we did not award gold medals to poor, stumpy growers of the Lady Mary Fitzwilliam type. Some rosarians contended that the blooms themselves were not eligible because they came from under glass! What a weak argument, to be sure. Why, if a Rose could be produced as grandly as Messrs. Beckwith produced Sunburst, both in July and in September, after such a season of perpetual sunburst, this alone should commend it to our growers as an enduring Rose that would be a superb addition to our gardens. Apart from this, the National Rose Society should be truly national in its character, and be ever ready to recognise the value of Roses grown under glass for commerical purposes, a very important branch of Rose culture at the present day; and the society will not be truly national until it has a pot Rose show of its own, because there are many amateurs only too ready to take up the culture of pot Roses if encouraged by the National Rose Society to do so, and thus extend the season whereby we may have our glorious national flower. In my opinion the society should convene a special meeting at once, alter the rule relating to gold medals so as not to bar a Rose of the Sunburst type, and make amends to M. Pernet-Ducher by awarding him the gold medal as soon as the rule is altered, so that he can send out his splendid novelty next March with the added honour of a gold medal of the National Rose Society; and it would be but a small recompense to one who has enriched our gardens with such choice Roses as The Lyon, Rayon d'Or, Château de Clos Vougeot, Mme. Abel Chatenay, Caroline Testout, Arthur R. Goodwin, Mme. Ravary, Gustave Regis, Antoine Rivoire, Marquise de Sinety, Paul Ledé, Mrs. A. R. Waddell, Prince de Bulgarie, Mrs. Aaron Ward and many others. The Royal Horticultural Society exhibits the right spirit in this matter, for it frequently awards its honours to Roses grown under glass, as witness the instance of Lady Hillingdon; and Sunburst, in the opinion of experts, will entirely eclipse Lady Hillingdon.—Walter Easlea, *Eastwood, Essex.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Hardy Fruit Garden.

GATHERING AND STORING FRUIT. There will be nothing gained by leaving late Apples and Pears on the trees after this date. All varieties have ripened much earlier than usual, and to leave them on the trees after they are fit to gather only means further loss through dropping and damage from insects. The most suitable room in which to store Apples and Pears during the winter is one which is not easily affected by sudden changes of temperature outdoors. It should have a naturally cool atmosphere, and the temperature should, if possible, be maintained at about 35° during the winter months. I have known Apples and Pears to keep in fine condition in any ordinary cellar, the atmosphere of which is invariably just suited for this purpose. The fruit should be frequently examined during the first few weeks after storing, as there is sure to be a good deal of decay caused through the bites of insects which were overlooked at the time of storing.

Peaches and Nectarines.—When all the fruits have been gathered, the trees should be given a thorough washing with a strong solution of soft soap and sulphur, as it is possible there may be red spider on the leaves. A good deal of the old fruiting wood should be removed, so as to better expose the young shoots to light and air. Examine the ties carefully to see that they are not too tight. Much damage is often done through neglect in this matter, especially to young trees. It is possible that the trees are dry at the roots after the exceptionally dry summer. They should be given a thorough soaking, if possible, with the hose-pipes, as it is important that the trees should have plenty of moisture at this time of year to plump up the buds. Young trees which are inclined to make gross wood should be lifted. Mix plenty of old brick rubble with the soil when replanting, and see that the soil is rammed quite firmly. Do not plant the trees too deeply.

Figs.—This has been an ideal season for Figs outdoors. Everything has been favourable for the fruits to ripen, provided sufficient moisture has been given to the roots. The fruits will still continue to ripen during favourable weather. If the young growth has become too dense, it should be liberally thinned, so that both fruit and wood may have every facility to ripen.

Lifting and Planting Fruit Trees.—Where young trees are to be planted, the ground may be prepared for them at once. The work of planting may be proceeded with as soon as the trees arrive from the nursery. In selecting the varieties, be careful to obtain those which have been thoroughly tested in your own particular district. One or two important points to observe when planting are: Never bury the roots too deeply; never plant when the ground is too wet. The lifting and root-pruning of young trees which are growing too strong may be done any time now when the weather is favourable. An effort should be made to do a portion of this work every year, as there is no doubt that it is absolutely necessary to bring young trees into a fruit-bearing condition.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Fruits Under Glass.

The Early Peach-house.—As soon as the foliage is quite ripe, the house should undergo a thorough cleaning. Having detached the shoots from the trellis-work and tied them in bunches, the glass and woodwork should be well washed with hot water and soap, and the walls lime-washed. If the trees were properly thinned out after the fruits were gathered, very little pruning will be required at this time; but the bark of the trunk and limbs should be cleansed with a strong solution of soap or some reliable insecticide, rubbing it well into the crevices. A weaker solution, however, must be used for the young wood, or bud-dropping will be the result. When all have been thoroughly cleaned and the trees retied in position, the surface soil should be removed and replaced with a fresh mixture of loam, wood-ashes, bone-meal and lime rubble. The border should be kept well supplied with water, and the ventilators kept fully open until the time for forcing has arrived.

Burning Flowers of Sulphur in a vinery badly infested with red spider when the foliage is thoroughly ripe is quite a safe and efficient cure; but to apply the same to a Peach-house is a very risky proceeding, and must be done with caution, or dropping of both fruit and wood buds will be the result. As soon as water can be got in quantity, the trees should be washed regularly with insecticides; but let me here sound a note of warning against subjecting Peach trees when dormant to strong solutions of insecticides. The roots should also be kept well supplied with water, even if it has to be carried a considerable distance, for any neglect in the water supply at this date will cause the entire failure of next season's crop, besides permanently crippling the trees through bud-dropping, causing whole branches to be removed. The renewal of any worn-out trees may be taken in hand at this time. If fresh trees have to be ordered from a nursery, they will not be forwarded for some time yet; but when preparations have been made in advance, the trees will be at hand, and should be transplanted as soon as growth is completed and before any of the foliage has decayed, shading from bright sunshine and syringing daily until it is seen that leaves and young shoots are again fresh and plump.

Pine-apples.—Plants swelling their fruits should be watered with weak guano-water until they commence to ripen, after which it should be entirely withheld. The house containing the plants for fruiting next summer should have the temperature gradually lowered before winter, and moisture, both at the roots and in the atmosphere, should be reduced to keep the plants in a resting condition until the forcing season again approaches. Young plants raised from suckers throughout the summer and autumn should receive similar treatment; but being in smaller pots they may require water more frequently. Syringing overhead should not now be necessary, but damping of the passages and the plunging material between the pots should be regularly done.

Tomatoes.—If fresh fruits are in demand all through the winter, plants for fruiting early in the year should now be well established in their pots, and should be moved to a house where they will get plenty of light and where a good command of heat is available. Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FRUIT GARDEN.

THE AMATEUR'S VINERY IN OCTOBER.

BADLY-COLOURED GRAPES.—Although some amateur cultivators grow very fine bunches of Grapes, many fail to get the berries well coloured. There are several reasons for the bad colouring, the two chief ones being over-cropping and deficient root action. Instead of the black varieties being of that dense blue-black appearance which is so pleasing to the eye, the berries have a reddish tint in them; they are "foxy" in colour, as many cultivators say. The past summer has been an ideal one for hastening the colouring of both black and white Grapes. A warm current of air passing through the vinery tends to hasten the colouring of the berries, and in some years, although the sun's rays may be hot, a cold wind prevails at the same time, and then it is not advisable to open the ventilators very wide, simply because the Grapes would be chilled and both the bunches and the leaves nearest the wide-open ventilators would get mildewed more or less. As black Grapes lose colour somewhat after they are fully ripe if exposed to the sunshine unduly, it is advisable to put on a temporary shading during the brightest part of the day; but on no account shade the house generally on the outside, as the Vines themselves cannot have too much sunshine. Place small sheets of newspaper directly over each bunch inside the house. There is no danger of the berries of Muscats being scalded now, even when the bunches are fully exposed, but some of them may get scorched. To avoid this, the leaves may be so arranged as to break the direct rays of the sun, thus retaining the rich amber colour while preventing any burning.

Late Varieties. — The inexperienced cultivator may think that late varieties may be ripened late in the year. A few may where there is a good heating apparatus and the Vines are confined to a house by themselves; but very late-ripened Grapes will not keep as long as those matured in the early part of autumn. If we take the varieties Black Alicante, Gros Colmar and Muscat of Alexandria as examples of late Grapes, the end of September is the proper time for full maturity in cases where only gentle forcing has been done. Such varieties should be started into growth slowly about the end of March. Amateurs who have late Grapes not quite coloured at this date should apply a little more heat and ventilate freely when the weather is warm.

Watering Vines Bearing Ripe Grapes.—Vines bearing bunches require more water than those from which the Grapes have been cut, and if water is unduly withheld many berries shrivel. Shrivelled berries are not really spoiled; they are fit to eat, but are not so nice in appearance as plump berries. Vines of Muscat of Alexandria should always have tepid water, especially after the Grapes commence to colour. Any chilling of the roots with cold water might cause shanking of the berries. All water should be applied before ten o'clock in the morning, so that any moisture rising from the damp surface of the soil will be dried up before sunset.

Grapes in Greenhouses.—At the present time very great care must be exercised in the management of Grapes in houses where a miscellaneous collection of plants are grown as well. The latter require water when the Vines do not, and so there is much atmospheric moisture. Here, again, it is advisable to give water to all plants early in the day, and, if the floor of the house be tiled, any surplus water that may lie in pools should be mopped up. In many instances greenhouse Vines are planted in outside borders, and so their roots are exposed to all rains that fall on the borders. Vines bearing ripe Grapes must be kept in as even a state of moisture at the roots as possible; and although it is unwise to cover up the border permanently, a temporary covering should be put on during heavy rains. Zinc sheets, doors, boards, or old tarpaulins will answer the purpose of warding off heavy rains. B.



A POT-GROWN TREE OF PEAR TRIOMPHE DE VIENNE.

PEAR TRIOMPHE DE VIENNE.

THIS excellent Pear now finds a place in the leading gardens of the country where up-to-date collections of hardy and orchard-house fruits are cultivated. The variety in question is an early dessert Pear which is in season during September and the early part of October. As a pot-grown tree we know of no Pear to excel it for heavy crops. So prolific is Triomphe de Vienne that it has gained the reputation of being a marvel of fertility. Not only is it a heavy and reliable bearer but the fruits which it carries are rich in flavour, large and handsome, with a russety skin. The tree is of strong and sturdy habit and, without doubt, it is an early Pear of great value. The heavily cropped tree portrayed in the illustration was shown in a gold medal group of pot-grown fruit trees exhibited by Messrs. James Veitch and Sons, Limited, at Vincent Square in August last.

KITCHEN GARDEN.

NOTES ON VEGETABLES.

BEET AND CARROTS.—The first-named of these as a salad and the second-named as a vegetable rank with our most useful winter foods, and it is important that the crops shall be secured in the finest possible condition and stored in such a manner that they will keep plump and of good quality. The Beet is, of course, the more tender crop of the two, and as soon as the tops have been flattened down by frost the roots should be lifted. In this process exercise the utmost care not to touch them with the fork, and see that the skins are neither broken nor bruised in handling, or bleeding will immediately follow and the value of the crop will be reduced. Twist off the tops 3 inches above the crown and store the roots in heaps of sand or fine dry soil, tails inwards, without attempting any washing, as the soil which adheres will help to keep them fresh. Carrots will be similarly dealt with, but there is not so much liability of serious injury in harvesting. At the same time, there should be no carelessness, as the unblemished root is obviously more welcome than that which is scarred or broken. With these the tops can be cut off close to the crown, as there is no danger of loss from bleeding, but the roots ought to be stored unwashed.

GATHERING TOMATOES.—The fruits on outdoor plants are not likely to swell appreciably after this date, and the whole of the crop ought forthwith to be gathered with a view to finishing them indoors. If the stems are cut off bodily and suspended in a suitable room or house, the fruit will ripen satisfactorily and assume quite an attractive colour; but it must not be anticipated that the quality will be equal to that of those finished on the plants in the natural manner. Although

will involve a little more trouble, the fruits most advanced in ripening may, if they are good enough, be removed from the plant and finished in boxes placed in a warm, dark position.

PLANTING CABBAGES.—The probabilities are that there will be a dearth of green vegetables in the garden during the forthcoming winter, and this will make the spring Cabbages even more welcome than they usually are. Those, therefore, who still have young plants in nursery or seed beds must plant them out, allowing 15 inches between the lines and 12 inches from plant to plant in them. See that the soil is pleasantly moist to commence with, and plant firmly. The chances are that if we get a cold autumn, progress will scarcely be perceptible, but the plants will live, and it will not prove a difficult matter to encourage them to recommence activity when the more favourable weather of the early months of the year arrives. If, on the other hand, the autumn is open, they will make considerable progress.

SCARLET RUNNERS.—These invaluable vegetables have served many of us a shabby turn this season, and it was only when the conditions of soil preparation, with subsequent attention, were excellent that even moderately good crops have been secured. There is, of course, still time for them to yield well, but the plants themselves were so poor in most gardens that late Beans must not be too confidently anticipated. Pick what pods there are as closely as possible, see that the roots are kept moist and, further, that there is an abundance of available food at their immediate disposal.

WINTER GREENS.—The hordes of caterpillars have riddled the leaves of the young Brussels Sprouts, Kale, Savoys and Broccoli to such an extent that the marvel is that they remain alive at all. Prospects of profitable returns from them are by no means bright; but efforts must not be relaxed to encourage them to grow. In ordinary seasons it is often difficult to check them sufficiently; this year the trouble is to persuade them to advance. When they are clearly standing still, try the effect of a light application of nitrate of soda, giving it when the soil is moist and in no circumstances exceeding half an ounce to the square yard, or the chances are that it will do more harm than good. H. J.

THE GREENHOUSE.

ANNUALS FOR SPRING FLOWERING.

THERE is nothing more charming for the embellishment of the conservatory during the spring months than some of our annuals. In mentioning a few of the most profitable kinds to grow, the Clarkia family certainly comes a good first, and there are two or three deserving special mention, viz., Sutton's Salmon Pink and Sutton's Firefly. Then Larkspurs, too, are well worthy of notice, and some of each of the pink, white and blue forms should be grown. In the Godetias also we have a most telling family of plants for pot cultivation, offering as they do a well-mixed range of colours. Success in the cultivation of the annuals mentioned is easily obtained, provided that the plants are never coddled, but given abundance of air whenever the weather is suitable. The present is a good time to make a general sowing of the seeds, which should be placed in a cold frame. As soon as the seedlings are up and strong enough to handle, pot them off singly into 3-inch pots. Subsequent shifts into larger receptacles must be decided according to the size of plants required. For general purposes 4½-inch and 6-inch are sufficiently large; but should large specimen plants be required, the stronger ones will amply repay a size larger. Some of the Clarkias and Godetias should be pinched to ensure more shrubby growth, while a portion of the former should be encouraged to grow as tall as they will.

Wantage. H. TURNER.

THE FLOWER GARDEN.

A PRETTY CHAMOMILE.

(ANTHEMIS CUPANIANA.)

THE Chamomiles give us many pleasing and useful plants, quite a number of them being favoured because of their graceful, elegantly-formed foliage, sometimes of pleasing colour tones, and the pretty flowers they also afford. In some species the aromatic odour is agreeable; but even those who do not care for this feature appreciate the appearance of the flowers. To see them at their best, however, they ought not to be viewed in the evening, when the ray florets turn back, umbrella-like, and the flowers do not show their form and size to advantage. One of the prettiest of its class which has ever come under the writer's notice is Anthemis cupaniana, a name which I prefer to retain, inasmuch as, although it is referred to as A. montana by some authorities, the plant sold as A. cupaniana does not absolutely agree with A. montana of the authoritative works. However this may be, the Chamomile which may be bought under the name at the head of this note is a pretty plant, with exquisitely-cut silvery foliage and good-sized white flowers on longish stalks, which make it useful for cutting. It forms a good border flower, but its ideal position is the rock garden or large rockery, where its rather prostrate habit will show to most advantage, and where it makes a good ornament to the rockery. It appears to like a light and dry soil and a fair amount of sunshine. The plant here illustrated is growing on a rough rockwork bank, just beneath a hybrid Rose which has grown into the dimensions of a low tree, and which is kept bare towards the base, so that the sun may reach the Anthemis. Here it looks very pretty indeed, and gives many flowers from April onwards. It is increased by seeds or cuttings, and has been perfectly hardy with me for the past five or six years. S. ARNOTT.



ONE OF THE CHAMOMILES, ANTHEMIS CUPANIANA, IN A SCOTTISH GARDEN.

TROPÆOLUM TUBEROSUM IN SCOTLAND.

SOME time ago I referred in THE GARDEN to the attractive Tropæolum tuberosum, and mentioned that I was of opinion that there were both early and late forms in cultivation, and that the cause of so many disappointments with this plant was the fact that it was the late variety which had been obtained and planted. As a consequence of planting the late one, the plants seldom flowered in good time, if at all, in the colder districts of the United Kingdom. The remark brought me early this year a box of tubers from a kind reader in Cornwall, who cultivates this Tropæolum for sale, and who was desirous that I should test his stock, which had been selected and grown with care for early bloom. I purposely kept back the planting until late April, yet the plants grew well and came into flower early in August, and in early September they were in full beauty. The hot, dry summer may be considered as having a bearing on this point of early flowering, and this is certainly the case; but, on the other hand, the tubers were longer out of the soil than the usual time by almost a month, as I consider the end of March the best time for planting T. tuberosum, and the place in which the tubers were set is shaded for a good part of the day.

I purposely gave them this place, and also planted them late, so as to give this stock as severe a test as was reasonable. Some years ago I had a similar stock from another source, but this I, unfortunately, lost through enforced absence from home for a considerable time just when the tubers should have been lifted. It is, I think, highly desirable that this point of the

different stocks should be kept in view, T. tuberosum being a plant of great beauty and useful for covering trellises or trailing over some rough bushes or on a trellis in front of a wall. I may say that in the forties of last century this question of flowering T. tuberosum gave great trouble to many expert gardeners, and many pages of some of the horticultural periodicals discussed the question. I hope the gentleman who sent me the tubers will adopt the usual means of bringing this stock before the public.

Dumfries. S. ARNOTT.

ROSE GARDEN.

CLIMBING SPORTS OF POPULAR ROSES.

THE value of the climbing sports of beautiful Tea and Hybrid Tea Roses can scarcely be over-estimated, for they now form quite a large collection, and are very suitable for lofty walls and roofs of conservatories, and also for south or west walls outdoors. I would caution the amateur with a small greenhouse against planting these Roses, for, as a rule, Roses taken from the list of non-climbers are far more suitable for a small structure or for a wall of some 6 feet to 8 feet high. Those who have planted such Roses as the ordinary Papa Gontier, Niphetos, Perle des Jardins, Liberty and Kaiserin Augusta Victoria know quite well that the growth has been ample for the position intended for them, and it must be admitted we get a much better display of flowers. But there are lofty structures where the climbing forms come in most useful. Who has not admired that beautiful Rose, the Climbing Niphetos, when it has produced its growths in such lavish abundance that one plant has entirely covered a wall or roof and yielded thousands of its snowy blooms? In like manner we have employed Climbing Kaiserin Augusta Victoria, Climbing Devoniensis and Climbing Perle des Jardins, each of untold value for our purpose. I have often thought their blooms superior to the original, but perhaps that was fancy. Anyhow, I would much prefer to plant the climbing form of Kaiserin Augusta Victoria outdoors on a wall than the dwarf form as a bush, for the blooms are undoubtedly superior and produced in such splendid trusses.

We are now afforded an opportunity of planting a Climbing White Maman Cochet, and it will be of untold value. This sport comes to us from Australia, and is being sold here by Messrs. Paul and Son of Cheshunt, who have flowered it; and, moreover, they have a small hedge of it that has withstood two winters, which proves its comparative hardiness. Even the ordinary White Maman Cochet will cover quite a big area on a south or west wall, so that one may well plant this newcomer on a house front, and no doubt the heat from the wall will largely decrease the number of split flowers, which is rather a bad trait of this Rose, but more especially of the pink form.

Climbing Killarney should also be most valuable for outdoor pillars and for growing under glass. I do not recommend it for a wall outdoors, as I fear it would suffer much from mildew. Climbing Lady Ashtown promises to be as useful as the Climbing Mrs. W. J. Grant, which Messrs. E. G. Hill and Co. gave us from America. It is well known that a much stronger form of the dwarf Mrs. W. J. Grant may often be selected from a batch of the climbing form, as all these Roses have a tendency to revert, and I believe we shall in time obtain decidedly improved growth in this Rose. Lady Ashtown does not require improving in growth; but it will be interesting if we get a sort of big bush midway between the climbing and the ordinary bush form, for it is really a most delightful pink Rose, perhaps one of the best. Climbing Caroline Testout is now one of our established favourites, and is grown perhaps more than any other pink climber of the large-flowered section. Most noble and beautiful are its huge blossoms, produced on such wondrously vigorous growth.

Climbing La France enables one to have this lovely old fragrant Rose covering a house front and succeeding where the original form fails. This failure is often due to the grower's own fault in pruning. Just treat it for a few years on the non-pruning plan and see if it will not be a success. I have frequently seen the old favourite in cottage gardens flourishing grandly, treated like a China Rose, which it resembles more closely than a Hybrid Tea, the bushes tied round the middle like a big Lavender bush, the top adorned with most exquisite blooms.

Climbing Liberty is valuable by reason of its gorgeous colour, especially for indoor work. Climbing Papa Gontier is also a beautiful and useful red climber; and in Climbing Lady Moyra Beauclerc we have a Rose that yields quantities of very elegant blooms that are so useful for house adornment.

Climbing Devoniensis and Climbing Perle des Jardins are both rather shy bloomers. They are best trained horizontally, which induces a number of lateral growths, and when these are cut back for two or three years they will yield blooms in profusion; at least, that has been my experience. The laterals are not cut back too hard, some being left 12 inches long, and some even longer; but the old wood must be preserved for the sake of the laterals, removing a growth or so annually when thoroughly worn out. P.



HYBRID TEA ROSE SOUVENIR DE MARIA DE ZAYAS.

ROSE SOUVENIR DE MARIA DE ZAYAS.

THIS is the name of a good garden Rose that has been shown in grand form at many of the leading Rose shows this year. It is a variety alike useful as a garden Rose and for pot culture. Its growth is vigorous, and its flowers are freely borne on erect stalks. The colour of the flowers is a little hard to define; it is perhaps best described as a light shade of vivid carmine, the petals being veined with a deeper hue. It is a shade of colour which, although beautiful in itself, does not blend or harmonise with other colours, and immediately it is brought into contact with almost any colour other than white its beauty is lost. Each flower is of exquisite shape, as will be seen by the accompanying illustration, and when arranged with due regard to colour value it may be used with telling effect. It belongs to the Hybrid Tea section, and although of comparatively recent introduction, it is reasonable in price.

SOME OF THE BEST MONTHLY ROSES.

I do not know whether this heading quite explains what I mean, because many will say, and rightly, "Is there any Rose more useful or beautiful than the old common pink Monthly?" But there is a lack of finish in its expanded blooms, whereas in a Rose like Mrs. Bosanquet we have the exquisite form of a perfect Tea bloom. Why was this Rose not classed as a Tea-scented variety? I think years ago when the Roses were introduced there was a sort of haphazard grouping of them. In foliage, form of flower and everything, this Rose resembles the true Teas. And yet there is an indefinable difference, a sort of thickness of leaf that has made some rosarians even group this Rose as a Bourbon—a most grotesque grouping. As I write I have a huge plant of this fine old Rose before me, and its autumn shoots, thrown up so grandly, are bearing fine clusters of its lovely delicate flesh white blooms, each flower standing up rigidly, and thus so much better displaying its beauty than some of the Monthly Roses we have. About twenty buds and flowers go to the making up of one of these fine clusters, and most decorative they are, especially in autumn and when viewed in the early morning and evening, as all Roses should be.

Other beautiful China Roses, to which the same remarks apply, are Aurore, a variety deserving of much praise — it is superior in form to the Tea Rose Souvenir de Catherine Guillot, and much of the same colouring; Baronne Piston de St. Cyr, as charming among Chinas as G. Nabonnand is among Teas, and having a similar expansive sort of flower that is so very charming in the cooler autumn days. Irene Watts was surely misplaced among the Chinas, for it is as large as any Tea Rose and equally as fine. Its raiser, M. Guillot, says it is a seedling of his Laurette Messimy; if so, it proves my contention that such Roses are in reality Tea Roses and should be grouped as such, or, if not, then let us glean out from the Teas a number of Roses of this type, such as Papa Gontier, Warrior and Corallina, and class them as China Teas. P.



A CLUSTER OF BELLADONNA LILIES IN A GARDEN NEAR LONDON. (*See page* 477.)

MY LITTLE GARDEN IN KENSINGTON.

(*Continued from page* 469.)

TRUE to my resolve not to recommend any plant to readers that I have not tried and succeeded with myself, I have not a very long list of rock plants to offer; but those I have are beautiful and healthy, and I fancy will be more than enough to fill a London rock garden. First and foremost in my affections are the Columbines. They are legitimate rock plants; in fact, they are alpines. These you can also see growing wild in Italy on ground that is mainly composed of stones and rock. They should be placed on the next plateau (if I may so call it) of the rockery, as they stand up well, and grow to some height after being established for a few years. They can be of all colours, the yellow being particularly pretty; but all are charming, graceful and long-suffering, giving (in ordinary years—not this year, as they like a great deal of water) a continuous crop of flowers from late May well on into July. The long-spurred hybrids do not live long in towns, but will last perhaps from two to three years. They seed themselves freely, and each seedling will grow into a nice plant. On this level of the rock garden could also be placed a little colony of Saxifraga umbrosa (London Pride). At first I was tempted to leave out this little plant, as it has a discordant, suburban sound; and I have seen it so ill-treated and badly grown that I did not feel willing to spare it much room. I did dig up a lot of it, but the little group that was left flowered so sweetly and abundantly this lovely hot summer that I am not sorry I left some, and I advise readers to spare it a little space too. It is very humble and unexacting, and will fill in any little arid spot that has been despised by the more fastidious of the rock plants. About this level, too (taking care to make nothing *really* level or regular), can be put Primulas, only one species of which I have yet tried, viz., Primula cortusoides. It does so well and has such a long period of flowering that I shall certainly try others. It is not a showy plant, having delicate spikes of pink flowers on stalks some 6 inches high; but I am persuaded it will insinuate itself into your affections speedily, and you will soon love it almost more than any other rock plant.

Unless the rock garden is a large one, you will now do well to begin upon the prostrate-flowering subjects, of which I have quite a pleasant list Chief of these, and on which I rely a great deal for a sheet of colour in July, is a certain kind of Pink, the name of which I am unable to, as yet, get from anyone. It was left me by a predecessor, whose name is thrice blessed, as he left me many lovely things. It is a double Pink of a very bright shade of pink, very vigorous, covering large slices of stone in one season, and having to be restrained after that. It is propagated with surprising ease (as are all Pinks) by offshoots that have not flowered, torn off, stripped of lower foliage, cut off just below a joint, and put in anywhere in the garden and kept moist. This year it has been so hot I have had some difficulty in getting my cuttings to strike; but last year I got quite a dozen plants in this simple fashion. Many other Pinks will do in a London rock garden, including that charming little plant, Dianthus plumarius. Any and all are worth trying, as I have only found one Pink (Dianthus Napoleon III.) fail in London yet, and that I mean to try again, as I am willing to believe I did not treat it in the way it liked.

Now come the Campanulas. C. carpatica and C. cæspitosa pumila are sheets of blue all the summer. They have lived with me now through a severe winter, as have all the foregoing plants and any that I shall yet name. Campanula muralis died, but I shall try it again with slight protection in winter. All of these can be planted at the beginning of September, or even earlier, if you can induce your nurseryman to let you have them then, or else plant in late spring. I have lost so many rock plants by planting in the autumn or too early in the spring that I cannot insist too strongly upon this point. A hardy, showy and very attractive plant is Alyssum saxatile, a mass of yellow in spring and with grey foliage that lasts all the winter. I have two other evergreen rock

plants, one rather like a prostrate, coarse Maidenhair Fern, called Muehlenbeckia complexa, and the other a similar plant with different shaped leaves. Neither flowers, but both have great charm and invariably attract attention. A very special pet of mine, and also an evergreen, is Thymus Serpyllum coccineus. A little clump brought from the rocks of Cornwall has flourished exceedingly, flowered profusely all the summer, and is spreading rapidly, so that I almost fear I shall have to move it, as I put it too low down, and it has now reached the ground and begun to trail. This amiability in a rock plant, condemned to spend its life in London, affords me the deepest pleasure. When they fall into a decline like Early Victorian young ladies and die in spite of anxious care, special soil, tonics and every kind of fussiness, I experience the same sort of sensation of intense humiliation as when a child or dog refuses my overtures of friendship. It seems to argue something wrong with one's character when anything young and helpless shows signs of dislike; but just as wrong feeding or the colour of my hat may be the cause of the child's ill-will (a dog's is more obscure and, therefore, more worrying), so wrong treatment may be the cause of my little rock plants' sickliness, and I nearly always feel it worth while to try again with different conditions. If, after two summers' trial (my limit for all kinds of plants, as space is too precious to tolerate the sulky ones longer)—one summer to "take holt," as my gardener calls it, and one to forget its undoubted hardships and look pleasant—it still "mules and pukes," I root it up to make room for something more adaptable.

For adaptability of a decided kind, plant the hardy herbaceous perennial Geraniums; Geranium Endressi, rose colour, and G. ibericum, a bright cerise. They like lime, but have flowered in various spots in my garden from June till the end of August, without any special treatment.

Other rock plants that are hardy and floriferous in London, requiring only ordinary soil and treatment, are Armeria, called also Thrift or Sea Pink, and the double white Arabis, which blooms any time after April to July. Cuttings of this plant, treated like Pink cuttings, should be put in every year and the old plants thrown away. Creeping Jenny (Lysimachia Nummularia) is very useful to fill in odd corners. I use it a great deal for edging my paths, together with Stonecrop (Sedum capsicum, I believe), both yielding bright yellow flowers in June and July. Neither of these should be put into the rock garden proper unless there are great gaps, as they spread like weeds and choke the better things. Aubrietia is so lovely; it is worth trying, but it does not like the London winters. I managed to bring one fine plant through last winter by protecting it with a bell-glass, but others that were not protected died. Many people erect small canopies of glass, supported on sticks, to keep off surplus wet, and my predecessor used to cover his (now my) rock garden entirely over with bass—a plan I cannot think wise, as it encourages insects and excludes air. This little article by no means exhausts all the rock plants that will flourish in London, but those mentioned will be found sufficient to fill quite a decent space, and that without any more duplication than is desired.

HELEN SHARPE.

23, *Pembroke Road, Kensington.*



NERINE VEITCHII, A NEW SPECIES FROM SOUTH AFRICA. (*See page* 486.)

THE TOWN GARDEN.

TUBEROUS BEGONIAS.—At almost any moment now frosts may be expected of sufficient severity to blacken the more tender bedding plants of the garden, of which the tuberous Begonia, Coleus and Alternanthera are well-known examples. It is at such a time, and more particularly where the frosts are early and unexpected, that the amateur is caught napping, and for the time being puzzled about what to do. Now in the case of the Begonia, any injury to the tuber will largely depend upon the depth of planting, the shallow-planted roots being those to suffer most. Hence an early lifting is desirable, as once the plants are touched by frost, no good after-flowering will result. Where the roots are buried to a depth of 2 inches or more, no immediate harm is likely to happen, and a covering of light litter may suffice for some time longer. This is suggested rather by way of convenience, since not infrequently a sharp snap of frost is experienced, to be followed by open weather for some days. Generally speaking, however,

THE BEST THING TO DO is to first somewhat reduce the top growth, or divest the plants of their larger leaves, lift them, and convey them to an airy shed or outhouse secure from frost. Place the tubers as lifted in boxes or baskets as thickly as possible, and nothing more will be required for some time to come. Given a month of this treatment, the tubers will be sufficiently mature for storing away for the winter, and may then be placed in boxes or trays surrounded by a little sand.

THE WINTER QUARTERS of such plants may be beneath the greenhouse stage away from the heated pipes, or in any shed, cellar or outhouse excluding frost. A shelf in the spare room is also a good place; anywhere, indeed, where uniformly cool conditions obtain without extremes of wetness or dryness. During the winter season little attention will be needed, and where separate and distinctive colours can be stored in cigar or other boxes *without lids*, not much harm will ensue.

BORDER CARNATIONS.—Where these were layered in July, the rooted portions may now be lifted for potting or planting in open beds, and, provided that well-rooted plants exist, the earlier this work is done the better. Such old-time favourites as the Crimson Clove, Raby Castle, Duchess of Fife and Red Rover, which are more distinctly hardy than some, will be best planted in the beds or borders straight away, taking care that the planting be firmly done. As some damage is likely to be done to the freshly-rooted layers when detaching them from the parent plant, it is worth directing attention to here, the point to observe being that the layers must be completely severed before any attempt is made to raise them. Where this is not done, a sudden wrench at lifting-time may pull away the roots entire, thus rendering the shoot useless.

BULBS IN FIBRE.—Daffodils and Hyacinths in bowls of fibre should be kept moderately moist now, and at no time should the material be allowed to become dry. Both groups delight in free supplies of moisture when in the growing state, and the rooting period in such plants must always be regarded as an important preparatory stage. Tulips, on the other hand, require much less moisture, so that these should not be regarded from the same standpoint. The small Van Thol Tulips that play so important a part in minor decorations during November and December may, where required in quantity, be grown in fibre or in shallow boxes of light soil, arranging the bulbs rather closely together. By placing these shallow boxes into others of greater depth and arranging them over the hot-water pipes beneath the greenhouse stage, making their surroundings dark meanwhile, growth and flowering will quickly follow. When the buds are fully grown and well coloured, the plants may be potted up as desired. It is in this way that the pretty, uniform flower-pots are obtained by the market-growers.

S. N. N.

GARDENING FOR BEGINNERS.

LIFTING AND POTTING CHRYSANTHEMUMS.

GOOD Chrysanthemum blooms can only be achieved by attending to the smallest details of culture. Absence from home and other claims upon the time of growers often preclude them from consistently serving the best interests of their plants, and for this reason plants grown in pots from start to finish in some gardens are most disappointing and unsatisfactory.

It has become a very common practice in the case of plants that are grown for cut flowers to plant outdoors goodly breadths of the more popular decorative varieties. These plants are propagated in the early spring, or perhaps at the turn of the year, and, after passing through one or two pottings, or being shifted once or twice in boxes or cold frames, are gradually hardened off and planted outdoors in specially-prepared quarters, where they can obtain the full benefit of sun and air. Such plants will be found in superb condition for lifting in October. Market-growers lift their plants and invariably plant them straight away in the immense glass houses erected for the purpose. The floor of these glass structures is not paved or concreted, but is just simply Mother Earth, as it was previous to the erection of the greenhouse. The soil is enriched and dug over from time to time, and as soon as the Chrysanthemums are ready for lifting they are replanted under glass fairly closely together, subsequently being well watered in, staked and tied. They soon recover from the check of lifting, and in the flowering season invariably render a good account of themselves. Readers who have either small or large glass houses that are unpaved may with advantage observe the same rules, and in this way secure a beautiful display of Chrysanthemums with little or no trouble or expense. Chrysanthemums may also be lifted from the open border, and either potted up into large pots or placed in boxes or any other receptacle that can be drained and that will accommodate the ample roots of these plants. The plants should not be lifted if the ground is at all dry, as the soil would fail to adhere, and the check would be felt more severely in consequence. In dry weather give the plants it is intended to lift a good soaking with clear water an hour or two before the lifting and potting are to take place. Also see that the growths are lightly but securely tied to stakes and a tie made round the whole of the plant; this will facilitate the lifting process. The lifting should be done with a spade, this being inserted all round the base of the plant so that it may be lifted with a good ball of soil adhering to the roots. Unnecessary soil should be removed with the hands, so that the ball of soil and roots may be comfortably adjusted in the pot or box got ready for its reception and that no damage to the roots may be occasioned. The pots should be large, clean and carefully crocked. Cover the crocks with a double handful of turfy loam or decayed manure, and a small quantity of prepared soil should be placed on this. A suitable compost may be made up of loam, leaf-mould and coarse sand, well mixed before using. After adjusting the plant in position in the pot, work in the soil, making this very firm, assisting in this by a few sharp raps on the potting-bench. Subsequently water in, standing the plants on sifted ashes or boards in a semi-shaded position for a few days to recover from the check experienced. Place under cover as soon as frosty weather makes this protection necessary. Fig. 1 and Fig. 2 portray the way the lifting and potting should be done. D. B. Crane.



1.—A PLANT IN EXCELLENT CONDITION FOR LIFTING.



2.—THE SAME PLANT AFTER POTTING.

HOW TO PLANT RHUBARB.

To many persons it may seem to be a very simple matter to plant Rhubarb. It is necessary, however, to go to some trouble in order to reap crops of serviceable sticks from the same roots year after year and not unduly impair the vigour of the plants. I daresay many readers of The Garden may have observed, when engaged in lifting certain roots, that some of the thongs have penetrated the soil to a great depth. This is the natural habit of the plant, and the roots would not have permeated the soil so deeply unless they required sustenance and moisture. Too often Rhubarb roots are planted in odd corners in poor soil, and where the sun's rays rarely penetrate sufficiently to have a favourable influence upon early growth. This plant is very accommodating and grows well even in adverse circumstances, and no doubt this fact has something to do with the putting in of roots in bad positions. When properly treated, the plants are extremely remunerative.

A border facing south, south-east, or south-west should be chosen; and if very early sticks are required, the ground should, if possible, have a gentle slope. The soil will thus be drier and warmer than that on the level. For the summer supply the roots may be grown on level ground and more open quarters. When preparing the soil, trench it quite 3 feet deep; leave the subsoil below, but break it up well. Mix well-rotted manure with the surface portion of the soil down to a depth of 15 inches. Put in the clumps singly, not in threes, in triangular form, as overcrowding is sure to occur in such cases. Single clumps 3 feet apart in rows, 3 feet 6 inches asunder, are the best, and when all are planted about the middle or end of October the surface should be covered with half-rotted littery manure. It is a common failing to try and grow six plants when there is room for only one. Overcrowding is unquestionably a common error. Plant, if possible, while the soil is in a comparatively dry condition. Victoria, Royal Albert, Paragon, Johnstone's St. Martins and Crimson Perfection are all grand varieties to grow. Shamrock.

NEW PLANTS.

NERINE VEITCHII.—This is said to be a new species from the Cape, though in effect it would appear to be a blush or pale pink form of N. Bowdenii, and possessed of all the good attributes of this fine plant. Should this prove to be the case, the coming of a new race with hardiness, vigour and freedom of flowering is but a question of a few years. From Messrs. Robert Veitch and Son, Exeter. (See illustration on page 484.)

Dahlia Prince de Venosa (Collarette).—The outer florets are of good form and coloured a crimson maroon; the inner florets are nearly pure white. Exhibited by Messrs. Dobbie and Co., Edinburgh.

Dahlia Queen of the Mauves (Single).—The name here is a little misleading, the colour approximating rather to rosy lilac. It is pretty and effective, and of good form. From Mrs. M. V. Seale, Sevenoaks.

Dahlia Mahdi (Single).—Intense maroon self; a handsome, well-proportioned flower. From Messrs. J. Cheal and Sons, Crawley.

Dahlia Uranus.—A fine exhibition variety of the fancy Cactus class, the florets long, narrow and well incurved to the centre. The colour is rosy lilac with mauve, irregularly freckled with reddish crimson or purple.

Dahlia Golden Wave (Cactus).—Superb yellow self, the colour of Carnation Daffodil. Excellent in every way.

Dahlia Stability.—Garden or decorative Cactus, with erect flower-heads of rosy mauve with cerise. These three varieties came from Messrs. James Stredwick and Son, St. Leonards-on-Sea.

Nymphæa Listeri.—The colour is deep blue, the form suggestive of that of N. stellata or a near ally.

Nymphæa Lord Brooke.—The colour is pink and the parentage presumably similar to the above. The flowers were, unfortunately, exhibited with very short stems. From the Earl of Warwick, Dunmow.

Nymphæa stellata rosea.—This was presented as N. stellata variety, with evidence to the same end. It is a pretty flower of rose pink colouring. From Mr. Leopold de Rothschild, Gunnersbury.

Rose Rayon d'Or.—A Hybrid Briar of Continental origin, the clear yellow petals being occasionally striped red on the outside. Fragrance is a strong point. From Messrs. Paul and Son, Old Nurseries, Cheshunt.

Odontoglossum Harwoodii The Shrubbery variety.—This is indeed a beautiful variety. The flowers are of good size, rich amber in colour, heavily spotted with maroon. It is a sturdy grower, producing a strong spike carrying six or more flowers. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Cattleya Mrs. Frederick Sassoon.—This valuable acquisition was raised by crossing C. aurea and C. Mantinii nigricans. The flowers are rich purple mauve of a brilliant hue. The lip is of a deeper shade, broad and well developed, with faint gold markings near the base. Shown by F. A. Wellesley, Esq., Westfield Common, Woking, Surrey.

Epidendrum lauchianum.—A remarkable species both curious and beautiful, with a pendulous inflorescence nearly 2 feet in length. The flowers are small and innumerable, with a peculiar scent. Shown by Sir Trevor Lawrence, Bart.

Except where otherwise stated, each of the foregoing received an award of merit from the Royal Horticultural Society on September 26, when the plants were shown.

NEW FRUITS AND VEGETABLES.

Apple Ellison's Orange. A dessert variety of high merit, ripening a month before Cox's Orange Pippin. It was raised some years ago by the Rev. C. C. Ellison, M.A., of The Manse, Bracebridge, Lincoln. Parentage, Cox's Orange Pippin × Calville Blanc. Shown by Mr. Crump of Madresfield Court Gardens, also by Mr. Markham, Wrotham Park Gardens. Award of merit.

Awards of merit were given for the following fruits and vegetables as the result of trials held in the Royal Horticultural Society's gardens at Wisley:

Raspberries Surpasse Merveille Rouge, Everlasting Feldbrunner, Perpetual de Serrière and Surprise d'Automne (from Mr. J. Burn, Cromer); Rouge Merveille (Messrs. George Bunyard and Co.); and Surpasse Falstolf (Mr. W. Pfitzer, Stuttgart, Germany). All of these are autumn-fruiting Raspberries and remarkably heavy bearers.

Carrot Early Gem (Messrs. Sutton and Sons), Potatoes Balgownie Seedling (Mr. J. Lyell, Aberdeen), Dobbie's Prolific (Messrs. Dobbie and Co.), Erin's Queen (Mr. W. E. Sands, Ireland), Great Scot (Messrs. R. Veitch and Son) and Toogood's Tremendous (Messrs. Toogood and Sons).

TREES AND SHRUBS.

ORNAMENTAL FLOWERING TREES FOR STREET PLANTING.

DURING a recent visit to Leigh-on-Sea I was interested to notice that use had been made of various ornamental flowering trees for street planting, in addition to other kinds of trees which are not often associated with the work. Unfortunately, in many cases, the trees had not been planted long enough for one to be able to form an idea as to their suitability for the purpose; but the kinds had been well chosen. The authorities responsible for the selection are doing good pioneer work in endeavouring to prove that several of our most beautiful flowering trees may be used for the embellishment of roads and streets, in addition to the larger-growing trees usually employed, which have no pretensions as beautiful flowering subjects. Some of the kinds which have been enlisted are Pyrus Aria, P. Aucuparia, double-flowered Thorns, Laburnums, Almond and double-flowered Cherry. Usually each road is given over to one kind of tree, but in a few cases a mixture of two kinds is to be found in the same road.

The advisability of using these and kindred trees for the adornment of roads has often been discussed, and some have been condemned on account of their bearing ornamental fruit, this being considered as fatal to their well-being on account of the temptation offered to children to break the branches to obtain the fruit. It is quite probable, however, that if once such trees could be introduced, and the public became aware of their beauty when covered with showy fruit in autumn, children would soon be taught to leave the trees alone. At any rate, they would soon find that the fruit was of little use to them when gathered. A greater drawback than this exists, however, to the wholesale planting of ornamental flowering trees, and that is the difficulty of getting the trees high enough to keep their branches out of the way of pedestrian and vehicular traffic. For this reason it is only possible to use those kinds which have naturally erect branches and rather slim heads, those sorts being quite out of the question which are characterised by bushy heads and drooping branches.

It has also to be remembered that some flowering trees cannot be hard pruned for many years without showing signs of exhaustion; therefore it would be unwise to include those kinds which form wide heads and would soon outgrow their positions. Flowering trees, as a rule, would be better adapted for side roads than for main thoroughfares, because in the former a lower length of trunk could be tolerated than in the latter. A very necessary factor towards the success of ornamental flowering trees for street decoration is that only really good, well-grown trees should be obtained for the purpose, for nothing can be more against the success of the scheme than planting badly-grown trees and trying to improve them afterwards.

Glancing at a few trees which are likely to prove of value for street planting, the White Beam Tree (Pyrus Aria) has much to recommend it. Naturally of upright habit, it forms a handsome specimen, with silvery leaves, heads of white flowers and orange red fruits. The varieties majestica and chrysophylla are specially worthy of notice. Closely-related trees are P. intermedia, P. rotundifolia and P. pinnatifida; of the latter species there is a variety with stiff, upright branches called fastigiata. All the forms mentioned do well in towns, while P. pinnatifida and P. intermedia thrive in smoky places. The Mountain Ash (P. Aucuparia) is another worthy tree, and few people who have seen its handsome orange scarlet berries fail to admire it. The most suitable varieties for street planting are Backhousei and fastigiata.

The various species belonging to the Malus group of Pyrus, though very beautiful, are not suitable for street planting, for in addition to the fruits offering attractions to boys, all are liable to attacks of American blight, which seriously injures the trees in addition to being a great disfigurement. There is no other reason than that of temptation to children why Pyrus communis should not be used, however, for the stronger-growing forms make upright trees which are very showy in spring. The Almond (Prunus Amygdalus) might well be tried in the Midland and Southern Counties, though, with other forms of Prunus, it is liable to gum badly if pruned hard or subjected to injury. Prunus Avium flore pleno is the most suitable double-flowered Cherry, but the Bird Cherry (P. Padus) and its double-flowered form might also be tried. Among Thorns, both the ordinary double scarlet and double white may be relied on to grow tall enough for planting in side roads, and nothing is more beautiful when in flower. There is also the upright-growing form of Cratægus monogyna, known as stricta, which would be worth a trial. Objection might be urged to these trees on account of their thorny branches; but trees are not likely to cause any more inconvenience on that score than hedges. Of the Laburnums, L. alpinum and its varieties are more likely to prove successful than the common Laburnum. L. alpinum grandiflorum and the hybrid Watereri are probably the most serviceable pair. Robinia Pseudacacia is a justly popular tree in many parts; but its varieties bessoniana, decaisneana, elegans, fastigiata and robusta Vignei are less frequently seen, but none the less desirable.

Where plenty of space is available, the Horse Chestnut is, of course, one of the most ornamental of all flowering trees; but too often its beauty is

spoiled by excessive but necessary pruning. Where room is available, however, it should be planted. The double-flowered form has advantages over the type, for there are no fruits to attract boys in autumn. Red-flowered Chestnuts are also to be recommended, for in addition to being very beautiful, they occupy less space than the common Horse Chestnut. Among other trees noted in the town previously alluded to, several kinds of Poplar were grown in addition to Limes, Elms, Birches, Sycamores, Hornbeam and Beech. The latter cannot be said to be an ideal street tree, for it is easily affected by drought and is very shallow-rooting. D.

ANSWERS TO CORRESPONDENTS.

MISCELLANEOUS.

Fast-growing Roses for hedge (*Miss A. C.*).—The Irish single Roses make very nice low hedges, but they would not be all suitable for your purpose of blocking out an unsightly view as seen from your rosery. We should recommend planting wichuraiana Roses, training them upon wires. Have a border trenched a yard wide and 2 feet apart, adding manure liberally; then put in Oak posts about 10 feet apart and about 8 feet or 9 feet out of the ground, or taller if this would not block out the view. Then stretch four or five rows of stout galvanised wire between the posts and tie the Rose growths to the same. You can obtain plants from 6 feet to 8 feet high, and they need no pruning the first year, although perhaps in spring you would need to cut back a little of the unripened ends, which would probably die back. Plant about 5 feet or 6 feet apart and spread out in fan shape. All the Dorothy Perkins tribe would be fine, not forgetting Excelsa. Then there are Gardenia, Alberic Barbier, Réné André and others that would make a fine wall of Roses in a year or two.

Wind screen (*H. W.*).—As your object is apparently to keep the rain as much as possible from the wall of the house, it seems to us that this particular object would be better served by clothing the wall with Ivy than by planting a screen of evergreen trees near it. A free-growing, large-leaved variety of Ivy, such as rægneriana, would be likely to suit you best. As the position is so exposed, the Austrian Pine (Pinus austriaca) is what we would recommend, though possibly Cupressus macrocarpa would in your district give satisfaction. For a quickly effective screen the plants may be put 6 feet to 8 feet apart, according to the size of the plants, while 12 feet from the house will be none too far; in fact, we should prefer even a greater space. Late autumn, provided we get a reasonable amount of rain, will be a suitable time for planting. Yours is one of those questions that depend largely upon the surroundings, the lie of the land and other matters, so that it would be a good plan to get a practical man in the neighbourhood to advise thereon.

Pruning flowering shrubs (*M. S. F.*).—The shrub you name may be cut back now, but if it is not done very shortly it is better postponed till the spring. You may cut them back hard, but it is better not to indulge in such drastic measures as cutting them back to the ground. The Clematises may be pruned any time during the winter, or, at all events, before growth recommences in the spring. C. Flammula may be shortened back to good plump buds, and any weak, old and exhausted wood cut out. C. Jackmanii should be cut down to within a few stout buds of the base. The other two kinds referred to, namely, Beauty of Worcester and Princess of Wales, belong to the lanuginosa section. In the members of this group the flowers are borne on short shoots produced principally from vigorous shoots of the previous year. Pruning of these is best done in February, shortening last year's shoots back to one-third or one-half of their length. Romneya Coulteri should be left till the spring; then, before growth recommences, the principal branches may be shortened back to good plump buds and any old and exhausted wood cut out.

Self-heal on lawn (*Mrs. S.*).—We are afraid that you will find a difficulty in getting rid of Prunella vulgaris from your lawn without stripping the whole of the turf off, digging up the ground and relaying, or resowing seed. You may, however, try a good dressing of Watson's Lawn Sand, which may be obtained from seedsmen. Directions for use are given with the mixture. That will probably kill the weed, especially if the dressing is followed a few months later by a good application of well-rotted farmyard manure to encourage the growth of grass. The greatest difficulty is the reproduction of the weed from seeds which have been dropped, and to obviate this the best plan is to encourage the grass to grow so that other things are crowded out.

Heating a greenhouse (*T. N. P.*).—An ordinary cast-iron boiler can be heated by gas; but, at the same time, you would find it far more expensive than if coal or coke be used. The boiler would be far better outside, as, should any fumes escape, the plants will not be affected thereby. With regard to the arrangement of the pipes, a golden rule to be observed is that the flow pipe from the top of the boiler should gradually rise until the highest point is reached, where the feed cistern may be placed, or, if not, an air-tap must be fixed there. From this point the return should gradually decline to the bottom of the boiler. Your suggested arrangement of a rise, level run, and then a dip is not at all likely to prove satisfactory, as in this way the water will not circulate at all regularly, even if a powerful boiler be employed. In order to get the necessary rise to ensure circulation, you might have to sink your boiler deeper than you have thought of doing; but such things can only be settled by personal inspection. As so many local matters have to be taken into consideration, it would, we think, prove far more satisfactory to get a firm of hot-water engineers to send a representative, and be guided by his opinion. You say nothing as to the size of the house.

Names of plants.—*John Durley, Hants.*—The common Barberry (Berberis vulgaris).——*A. C., Long Eaton.*—The Thorn Apple (Datura Stramonium). A native plant common in gardens this year.——*D. G., Winchester.*—Erigeron strigosus.——*A. J. C., Worcester.*—1, Caryopteris Mastacantha; 2 Salvia azurea.——*H. E. T., Anerley.*—Box Thorn (Lycium chinense).——*Colonel F.*—Both Viburnum Opulus.——*J. C., Hinckney.*—Oxalis corymbosa ——*C. C., Colchester.*—1, Allamanda Schottii; 2, Lapageria rosea.——*A. E. T.*—The common Barberry (Berberis vulgaris). It is quite hardy, and will thrive in almost any soil.——*D. Rhind.*—Polygonum baldschuanicum.——*Arthur Bishop.*—The common or wild Guelder Rose (Viburnum Opulus).——*Oakleigh.*—1, Cratægus tanacetifolia; 2, Pyrus Aria.——*Mrs. R. Pilkington.*—The tree is Cratægus Crus-galli; the Crab, Pyrus Malus Bertinii.——*M. K.*—1, Hypericum moserianum; 2, Aster Novæ-Angliæ ruber; 3, Kerria japonica flore pleno; 4, Kalmia glauca; 5, Berberis vulgaris; 6, Aster acris; 7, Gladiolus seedling variety; 8, Aster seedling, probably ericoides variety.——*C. E. G.*—Staphylea pinnata.——*Ilex.*—1, Hyoscyamus niger; 2, Clerodendron fœtidum; 3, Hibiscus Trionum; 4, Polypodium vulgare cambricum; 5, too small to identify; 6, Pittosporum tenuifolium (hardy only in sheltered places); 7, Exacum affine. The Bamboo is probably Arundinaria falcata.——*L. L.*—Ceanothus Gloire de Versailles.——*J. P. C.*—Pyrus Aria.

Names of fruit.—*John Durley, Hants.*—We think it is a small fruit of Williams' Bon Chrétien.——*Frisco.*—Pears: 1, Durondeau; 2, Beurré Clairgeau. Apples: 1, Lamb Abbey Pearmain; 2, Norfolk Beefing; 3, Striped Beefing; 4, Potts' Seedling; 5, Warner's King; 6, Round Winter Nonsuch.——*C. W. T.*—2, Warner's King; 4, Beurré Diel; 5, Duchesse d'Angoulême; 6, Conference; 7, Marie Louise. The numbers of the other Apples were detached.——*E W. H., Dover.*—1, Worcester Pearmain; 2, White Must; 3 and 4, King of the Pippins; 5, Flanders Pippin; 6, Ribston Pippin; 7, Margil; 8, Wellington; 9, Lamb Abbey Pearmain; 10, Lemon Pippin; 11, Waltham Abbey Seedling; 12, Sandringham; 13, Jefferson; 14, Pickering's Seedling.——*J. W. L.*—1, Maltster; 2, Peasgood's Nonsuch; 3, Beauty of Kent; 4, Bramley's Seedling; 5, Allington Pippin; 6, Newton Wonder; 7, Hambling's Seedling.——*Menu.*—1, James Grieve, 2, Withington Fillbasket; 3, New Hawthornden; 4, Newton Wonder; 5, Blenheim Orange; 6, Peasgood's Nonsuch.——*M. M. F.*—2, Mank's Codlin (pale); 2, Tom Putt (dark); 4, a local variety closely resembling Miller's Seedling.——*A. H., Leatherhead.*—Hambledon deux Ans.——*W. J., Yorks.*—Pear Marie Louise d'Uccle. A dessert variety in season during November and December.——*M. T. Coates.*—1, Alfriston; 2, Seaton House; 3, Hambledon deux Ans; 4, Sugarloaf; 5, Lane's Prince Albert; 6, Stamford Pippin; 7, Golden Spire; 8, Annie Elizabeth; 9, Striped Beefing.——*Mercury.*—1, Beauty of Kent; 2, Fearn's Pippin; 3, Rosemary Russet; 4, Warner's King; 5, King Harry; 6, too poor to name; 7, Reinette du Canada; 8, rotten when received; 9, Bismarck; 10, Pearson's Plate; 11, and 12, Worcester Pearmain; 13, Beauty of Hants; 14, Brandy Apple.——*H. W. Hurrell.*—1, Newton Wonder; 2, Lord Burghley; 3, Lane's Prince Albert; 4, Maltster; 5, Rosemary Russet; 6, King of the Pippins.



THE BEST ROSE SHOWN AT THE FESTIVAL OF EMPIRE ROSE SHOW. THIS WAS AWARDED A SPECIAL GOLD MEDAL GIVEN BY MESSRS. CLAY AND SON. THE VARIETY IS GLOIRE DE C GUINOISSEAU.

SOCIETIES.

FESTIVAL OF EMPIRE ROSE SHOW.

THE autumn Rose show held at the Crystal Palace on September 28 and 29 proved to be a most successful exhibition. The classes throughout were well contested, and many of the blooms were superior even to those shown at the summer exhibition. It would be difficult to single out any special variety, but the Lyon Rose, which was so prominent in the early exhibition, was again seen both in quantity and quality, proving that in some localities at

least it is good for an autumnal as well as a summer display. Lady Hillingdon is a variety that is making great headway as a Rose for table decoration and for making up baskets of the national flower. Souvenir de Pierre Notting, a Rose that has been disappointing in wet seasons, has this year regained its proud position as an excellent Rose both for the garden and for exhibition; hence it was not surprising to find it well represented in many classes.

NURSERYMEN.

Thirty-six blooms, distinct: The first prize and silver cup were secured by Messrs. J. Cocker and Sons, Aberdeen, who showed Roses from Scotland in grand form. The second prize and silver medal also went over the Border, being won by Messrs. Adam and Craigmile, Fernilea Nurseries, Rubislaw, Aberdeen.

Messrs. D. Prior and Son, Colchester, won the first prize and gold medal for twenty-four blooms. Their flowers of J. B. Clark, Melanie Soupert and Bessie Brown were the three best. Mr. G. Prince, Oxford, was second in this class, and was awarded a silver medal for an admirable exhibit.

Messrs. Hugh Dickson, Royal Nurseries, Belfast, were placed first for eighteen blooms, distinct. This class was well contested; and the second prize collection, shown by Messrs. James Cocker and Sons, Aberdeen, contained a magnificent bloom of Gloire de C. Guinoisseau. This bloom was awarded a special 8-guinea gold medal, presented by Messrs. Clay and Son, as the best bloom in the whole show. For illustration see page 487.

The first prize and piece of plate for twelve blooms, distinct, were won by Mr. Henry Drew, Longworth, Berks, closely followed by Mr. John Mattock, Headington, Oxford.

For twelve blooms of one variety the first prize was won by Messrs. Alex. Dickson and Sons, Limited, Newtownards, the variety shown being Frau Karl Druschki. The second prize was won by Messrs. D. Prior and Son, who showed the same variety in excellent form.

Messrs. D. Prior and Son were successful for twelve blooms of either Tea or Noisette Roses, showing Maman Cochet. Mr. G. Prince was a good second with a perfect dozen of White Maman Cochet.

For twelve varieties, three blooms of each, Messrs. J. Cocker and Sons were first. Messrs. Hugh Dickson were a good second, but their blooms were unmistakably weather-beaten.

Messrs. Cocker and Sons were again first for eight varieties, three blooms of each, and the second prize once more fell to the lot of Messrs. Hugh Dickson.

Mr. Prince was first for eighteen blooms of Teas and Noisettes. Among his best were Mme. C. Soupert, Mme. Jean Dupuy and W. R. Smith. The second prize went to Messrs. J. Jefferies and Son, Cirencester, for their Cotswold Roses.

For a decorative arch of Roses, Mr. Elisha Hicks, Hurst, Berks, was the winner of the first prize.

GROUPS OF DECORATIVE ROSES.

A keen contest was witnessed in the class for twenty-four varieties of not less than three trusses of each variety. The group put up by Mr. John Mattock was awarded the first prize and silver cup; and Mr. George Prince's group, almost equal in quality, was awarded the second prize and silver medal. Messrs. Hugh Dickson had an excellent exhibit in this class.

A similar but smaller class for twelve varieties was won by Messrs. W. Spooner and Son, Woking, followed by Mr. F. M. Bradley, Peterborough.

A magnificent and representative group of cut Roses secured for Messrs. W. and J. Brown, Peterborough, a well-deserved silver cup. The centre-piece of this very extensive group was occupied by a bold display of the Lyon Rose. Messrs. B. R. Cant and Sons, Colchester, likewise had a large and magnificent group. This was awarded a silver medal and second prize.

A similar class for a large representative group of cut Roses was won by Messrs. J. Jefferies and Son. Perle des Jardins was capitally shown by this firm. Second, Messrs. George Jackman and Son, Woking, with a well-staged group containing the Lyon Rose, Frau Karl Druschki, Maman Cochet and a host of others.

AMATEURS.

The amateur classes in all sections created keen competition among some of the best-known rosarians of the day.

A silver cup, the gift of the National Rose Society, was won by Conway Jones, Esq., for an excellent box of twenty-four blooms. This well-known amateur was closely followed by the Rev. J. H. Pemberton, Romford, president of the National Rose Society.

The Rev. J. H. Pemberton was first for twelve distinct varieties, three blooms of each, and again for twelve blooms of any Rose. In both classes the Roses were shown in admirable form.

A successful exhibitor in those classes open to growers of fewer than 2,000 plants of varieties in the list of exhibition Roses was Mr. F. Slaughter, Steyning, who secured first prizes in the classes for eighteen blooms, distinct, twelve blooms of any Rose, and twelve blooms of distinct varieties.

Another successful exhibitor was Mr. E. B. Lehmann, who secured the premier awards for six blooms, distinct, three blooms of each, and for six blooms of any Rose.

The classes for sprays and baskets of Roses are too numerous to record in detail; but in passing we would like to mention a very beautiful basket of the new Rose Lady Hillingdon shown by Mrs. G. W. Cook, Whetstone, N. The first prize for a decorated table was won by Mrs. J. Bide, Uxbridge, also with the variety Lady Hillingdon.

CROYDON MUTUAL IMPROVEMENT SOCIETY.

THERE are few gardens of the present day but what contain that popular flower, the Viola, in one or other of its forms, and the culture of this was the subject of a lecture recently given by Mr. D. B. Crane of Highgate, N. The cultivation of Violas, or Tufted Pansies, and the Pansy itself is a pet subject of the lecturer, he having given something like twenty-one years to their study, and with an exponent of Mr. Crane's fame his remarks were earnestly listened to. It is nearly a century ago that this flower was introduced to this country. How many varieties we have at the present time it is difficult to say, but it may be said that no garden is complete without them, for they can be used in so many ways, whether it be as an edging to flower-beds or bold masses of them planted together, which attract the eye at once, and most of them have a fragrance as pleasing as they are beautiful. In the Northern Counties and across the Border they are seen at their best, for climatic conditions suit them better there than further South.

Mr. Crane's idea is that they are flowers for the garden, and not so much for the exhibition table. The cultivation is easy and within the reach of all who care to take them in hand. Good, rich soil, deeply trenched, is what they require, and this is better understood when it is found that their roots traverse several feet away from the base of the plant. Violas are easy of propagation, and within a few weeks a big supply of plants may be obtained. When trueness of colour is not so necessary, seeds may be sown during July in a cold frame and grown on sturdily until their flowering quarters are reached. To get a stock which shall be true to colour and type, cuttings are best, and these root easily enough. They should always be taken from the root, as stem-cuttings rarely succeed. July is also a good month to take cuttings, using a cold frame sheltered from the sun. By the first or second week in October they may be planted out. Perhaps spring is the best time for taking the cuttings, and frames should face south, so as to get as much sun as possible. Ventilation must be attended to carefully, and so prevent insect pests. A good medium of soil for the frames is made up with equal parts of leaf-mould, loam and road grit, and the cuttings placed in this will grow away readily. With such a big list of varieties it is difficult to give the best kinds, especially as some will do better in one locality than they will in another. The cultivator must bear this in mind and grow those which suit his district best. A point to bear in mind is always to have good varieties, for the same culture is required when they are indifferent sorts. One of the principal diseases affecting them is rust, and the lecturer advised syringing the plants underneath and above the foliage with sulphide of potassium at a strength of half an ounce to a gallon of water.

READING GARDENERS' ASSOCIATION.

THE opening meeting of the autumn session in connection with this association took place in the Abbey Hall (by kind permission of Messrs. Sutton and Sons) recently. The president, Mr. F. B. Parfitt, occupied the chair, and there was a very large attendance. Among the business matters which prefaced the evening was the presentation of certificates to the successful candidates at the examination held at the conclusion of the evening classes conducted under the auspices of University College, Reading, last winter and spring. The successful members were Messrs. B. Fletcher, F. H. Fordham, P. Judd, E. J. Dore and G. Chambers. A hearty vote of thanks was accorded Mr. F. G. Drew, horticultural instructor at the College, for so kindly undertaking this course of lectures. Much concern was expressed at the meeting when it was announced that the association had lost one of its most honoured patrons by the death of Sir William Farrer, who had shown his practical interest in the doings of the association not only by his annual subscription, but by more than once inviting the society to visit his charming gardens. Great sympathy was expressed for Mr. W. J. Townsend, Sir William's able head-gardener, in the loss he had sustained.

The speaker was that *doyen* among horticultural lecturers, Mr. Alexander Dean, lecturer on horticulture to the Surrey County Council, who was listened to with rapt attention by the large and appreciative audience. His subject was "Floral Ideals," and after a short introduction, in which the lecturer explained the meaning of the term "florists' flowers" as generally understood, he proceeded to give a masterly and exhaustive address exemplifying the long and patient efforts of the horticulturists of fifty or sixty years ago in the production of what they considered to be perfection of form and colour in various flowers. Their ideals demanded perfect symmetry in appearance with precision and regularity in marking. Modern ideas of artistic beauty tended in the opposite direction; indeed, the lecturer remarked that the shaggy and uneven Cactus and other Dahlias which were staged before him would have appealed but little to Glenny and his contemporaries.

At the conclusion of his remarks Mr. Dean was loudly applauded, and on the proposition of the vice-chairman, seconded by Mr. Tunbridge, a hearty vote of thanks was accorded him.

A certificate of cultural merit was awarded to Mr. A. Giles, gardener to Mr. H. W. Dunlop, for an exhibit of twelve Cactus Dahlias. Mr. F. Townsend, head-gardener to the vice-president, staged some very fine blooms of seedling Dahlias, which were greatly admired, and Mr. A. F. Bailey, gardener to Mr. H. Collins, exhibited exceedingly interesting flowers of Nerine Fothergillii majus.

"Sweet Peas and their cultivation."

This is the title of a most useful little booklet by the well-known raiser and grower of Sweet Peas, Mr. W. J. Unwin, Histon, Cambs. We understand that Mr. Unwin is prepared to send a copy, together with his catalogue for 1911-12, post free to any of our readers who care to write for them. The booklet in question is thoroughly practical, and should be of great assistance to amateurs.

Gift to Motherwell. — His Grace the Duke of Hamilton has generously given to the burgh of Motherwell 21½ acres of land for the public park of the burgh at what is a nominal rent for agricultural lands, although it is of great value for building purposes. The ground is at present part of the park, but it is only held on sub-lease from a farmer, whose tenancy soon expires, and this prevented the Corporation from improving the place. This can now be done. In recognition of the generosity of the Duke, the park will now be called the Duchess of Hamilton Park.

Dinner to a Dumfriesshire gardener. The other day a number of the fellow-gardeners of the district and of personal friends entertained Mr. Young, gardener to the Directors of the Crichton Royal Institution, Dumfries, to dinner on the occasion of his leaving the district to take up a good appointment in Ireland. The chair was occupied by Mr. J. Hutchison, Terregles Gardens who gave the toast of their guest and presented Mr. Young with a smoker's companion as a remembrancer of the event. Mr. Hutchison referred in eulogistic terms to the work of Mr. Young as an exhibitor and as a gardener generally. Mr. Young made a feeling and appropriate reply.

"Country Life" for October 7 contains, among other articles, an illustrated account of "Dalkeith Palace" (illustrated); "Tale of Country Life: The Fairy Learns the Meaning of Tears," by Lady Margaret Sackville; "Mr. P. B. Vander Byl's Collection" (illustrated), by Frank Wallace; "An Agricultural Labourer's Day" (illustrated).

OBITUARY.

WILLIAM EARLEY.

WE regret to announce the death of Mr. William Earley at his home at Cogan, Northampton Road, East Croydon. Even in his boyhood days Mr. Earley showed a passionate fondness for flowers and their cultivation, and he successfully opposed this taste to every effort put forward by his father to apprentice him to a trade. He took the first opportunity of entering the service of a practical gardener, and was successful a little later in having entrusted to him the care of many private gardens. As a member of the Royal Horticultural and other societies he was constantly brought into contact with the best authorities, and it was not long before his services as judge were in constant demand. He had often acted in this capacity at the Royal Botanic Gardens and at the Crystal Palace. For a time, before Mr. Earley devoted himself entirely to horticulture, he held office at Ilford under the local authority. For nearly forty years he contributed the gardening notes to *Lloyd's Weekly News*, and kept at this work until a few days before his death.

GARDENING APPOINTMENT.

MR. FREDERICK A. ROWLINSON has been appointed head-gardener to F. H. Beaumont, Esq., Buckland Court, Betchworth, Surrey, in succession to Mr. Thomas Bowyer

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*



ROSE RAYON D'OR.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PROGRESS OF THE ROSE.

So rapid and wonderful has been the evolution of the Rose during recent years that no apology is needed for devoting this issue mainly to the Queen of Flowers. The planting season is once more with us, a season when plans that were schemed out during the sweltering days of summer can be put into being, and when so much may be done to make or mar the beauty of our Rose garden another year. In the pages that follow will be found articles from the best amateur and professional growers in the country. Some of these articles are practical, others of historical interest, but all manifesting, in greater or less degree, that love for the Rose which is to be found in the heart of every true Briton. Those of our readers who remember THE GARDEN in its early days will be pleased to find an article from that esteemed veteran in the Rose world, Mr. George Paul, V.M.H. Mr. Paul was one of the earliest contributors to this journal, but of late years has had little time to devote to journalistic work, the cultivation and improvement of the Queen of Flowers occupying all his spare moments.

Modern developments of the Rose have demanded new methods of exhibiting the flowers, and among these the new baskets, aptly described by the president of the National Rose Society, the Rev. J. H. Pemberton, to whose genius we believe Rose exhibitors are indebted for them, are the most effective and beautiful. At the autumn show of the society such baskets as that illustrated on page 492 formed one of the most attractive features, and before many years have passed we shall, no doubt, find similar baskets at every Rose show in the country.

It is, however, as a flower for garden purposes that the greatest progress has been made in the Rose during recent years. The advent of Soleil d'Or, a variety of little use in this country except for hybridisation, was the forerunner of that now popular section known as Pernetiana, a section that is as varied in habit as in colour; yet among its members are to be found some of the most beautiful flowers—Roses possessing such combinations of colours and shades of colours as our forefathers would scarcely have believed possible. It would seem that this section has also yielded us what every Rose enthusiast has long been waiting for—a really good yellow bedding Rose—in the variety Rayon d'Or, a coloured plate of which is presented with this issue. Lyon, Arthur R. Goodwin and the wonderful Juliet are other Pernetiana Roses that every enthusiast rightly desires to have.

The Hybrid Teas, too, have been so improved and developed that many popular varieties of ten or fifteen years ago are seldom seen now. On the other hand, a few of the older sorts, such as La France, are as popular as ever, proving in an unmistakable manner that it is the true merits of a Rose and not its reputed utility which endears it to the hearts of amateurs and professionals alike. The advent of many of the beautiful, though thin-flowered, Hybrid Teas has almost revolutionised the growing of Roses in pots for early flowers. At one time considered only possible by those who had unlimited glass accommodation and plenty of artificial heat at their command, the forcing of Roses has now become exceedingly popular, and doubtless, before many years have passed, the National Rose Society, which keeps an eagle eye on the Rose in all its phases, will institute a spring show of forced or pot-grown Roses. Such an exhibition would, we feel sure, add largely to the popularity of the Rose and, incidentally, the society, and would demonstrate the suitability of certain varieties for forcing.

Nor must we forget, in briefly considering the progress of the Rose, the effect its extended cultivation has on the community. Not only does the growing of Roses provide healthy recreation for mind and body to a large number of people, but the raising of bushes and the growing of flowers for sale is an industry that must be reckoned with. In one Rose nursery alone in this country nearly two hundred and fifty thousand Briars were budded during the past summer, and it is possible that in some others this number has been exceeded, while the growing of flowers for market, particularly forced blooms early in the spring, has now reached enormous dimensions.

How much of this rapid progress has been due to the work of the National Rose Society no one will, perhaps, ever know; yet we may safely assume that the flower would never have made the headway it has without the support of that body. By disseminating up-to-date literature among its members, and by the holding of conferences and exhibitions, the council of the society have been, and still are, doing a

vast amount of useful work, and all interested in the Queen of Flowers should become members. The hon. secretary is Mr. E. Mawley, V.M.H., Rosebank, Berkhamsted, and he will be pleased to supply full particulars concerning the society to any of our readers who care to apply for them.

NOTES OF THE WEEK.

FORTHCOMING EVENT.

October 18.—North of England Horticultural Society's Meeting and Exhibition at Leeds.

Huntingdonshire Daffodil and Spring Flower Show.—This annual exhibition is an important one in the Daffodil world, and we are reminded of the next show by the receipt of a new schedule. The exhibition, which is open to all England, will be held in Huntingdon on Thursday, April 18, 1912. As with other societies, we note that the new classification of Daffodils as issued by the Royal Horticultural Society is to be followed. Copies of the schedule may be had by anyone interested from the hon. secretary, Miss Linton, Stirtloe House, Buckden, Huntingdon.

Diseased plants. — At a recent meeting of the scientific committee of the Royal Horticultural Society, Dr. Voelcker showed specimens of Celery attacked by the fungus Septoria petroselini var. Apii. This disease appears to be becoming increasingly prevalent each year, and, as pointed out earlier in the year in the minutes of this committee, a considerable number of samples of "seed" of Celery are attacked. Probably spraying with Bordeaux mixture or with potassium sulphide from early stages in the plant's growth onwards would keep the disease in check. He also showed Cabbage leaves badly attacked by the fungus Phyllosticta brassicæ, causing spotting of the leaves so as to render the plants useless.

Decorative and Garden Dahlia Trials at Swanley.—Under the auspices of the National Dahlia Society, a comprehensive trial of decorative and garden Dahlias has been carried out in a most satisfactory and efficient manner by Messrs. H. Cannell and Sons at Swanley in the home nurseries. Notwithstanding the dry and uncongenial summer we have recently experienced, the plants were in luxurious growth, and many presented a veritable mass of bloom on the date of our visit (October 5). The following varieties were awarded three marks (***) for their excellent decorative effect: Pæony-flowered—South Pole, Glenton, Mme. J. Coissard, The Geisha, Dr. Hogg and Golden West; Cactus—Amos Perry and Effective; Collarettes—Negro, Mme. Porrier, M. Hugonard, A. Normeune, Henri Tarne, Souv. de Chaubanne and Mrs. E. D. Till; giant decorative—Ethel May, F. Grinsted, Le Grand Maniton, Papa Charmet, Phenomane and Gloire Lyonaise; giant singles—Evelyn Jackson, Mrs. W. C. Jackson and White Cloud; decorative—Kaiserin Augusta Victoria.

"The Times" Experimental Station.—We have pleasure in announcing that Mr. Harry Foster, son of the late Mr. Charles Foster, has been appointed director of *The Times* Experimental Station, Sutton Green, Guildford, and that he assumed full control of the important work on October 1. The protracted illness of the late Mr. Charles Foster threw the burden of responsibility on the shoulders of his younger son, and he acquitted himself with all credit. In addition to the general work of the station, the trials of Sweet Peas for the National Sweet Pea Society and of vegetables for the National Vegetable Society were conducted with marked skill and accuracy, and received the unanimous approbation of the committees and members of those bodies. Mr. Harry Foster completed his education at the Reading Collegiate School, subsequently gaining valuable scientific knowledge under Mr. F. J. Chittenden at Wisley and practical experience under his late father at the station to the directorate of which he is now called. The high esteem and respect in which his late father was held will ensure for the son a welcome into horticultural circles and a general wish that he may achieve such success as will add lustre to an already illustrious name.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Clerodendron trichotomum.—In THE GARDEN for September 16 I was interested in reading the note by "A. O." on this beautiful deciduous flowering shrub. The plant we have here is from 9 feet to 10 feet high and as much through, and is doing remarkably well in a similar position to that described by your correspondent. This year it has flowered abundantly; and when all cut flowers have been at a premium owing to the long-continued drought, it has been most useful, as we have been able to cut quite a nice lot of flowers for room decoration. Our experience of it here has proved it to be most useful and highly ornamental, and certainly it ought to be more widely grown.—R. H. LEGG, *Melksham House Gardens, Melksham.*

The education of gardeners.—Quite recently I have come to reside in the North of England, where I find the education of a gardener is receiving the interest of public men and a scheme for their advancement being formulated. I have considered various plans which might more or less successfully be advocated. Foremost is the formation of a "National Guild of Gardeners," or "The Institute of British Gardeners," or "The Horticultural Labour Exchange." I have been in communication with the Rev. J. Bernard Hall, the secretary of the North of England Horticultural Society, who would be pleased to receive any suggestions from gardeners and horticulturists of all ranks with a view to the formation of a national society, names for membership, or any offers of assistance to formulate such a scheme. Such an institution should include quite young gardeners, nursery employés, under and head gardeners, nurserymen and, as hon. members, the wealthy friends of gardening. A nominal annual fee would be demanded from young men, and an annual subscription or a good donation from others to form the nucleus of a fund. The objects to comprise: (*a*) A method whereby a young or under gardener might improve his knowledge by interchange of work with a fellow-member, either in a nursery or a private establishment, viz., a young man after spending one and a-half years or thereabouts in a Southern county might exchange places with another member in the Eastern, Midland, or Northern Counties. (*b*) Arrange for an annual conference in a different large centre annually. (*c*) If sufficiently supported, to establish branches in all large centres, or at least a branch in each county. (*d*) Formulate a circulating library. (*e*) Arrange for lectures, correspondence classes, facilities for the preparation for examinations in order to qualify for important posts.—JOHN SMITH, *County Council Lecturer and Instructor in Horticulture.*

Collarette Dahlias.—The popular Cactus Dahlia, with the shows, fancies, Pompons and singles, seem to have attained to such perfection of form that there is little or no room for further development. It now remains with the Dahlia-loving public to determine what further progress may be furnished by this flower from such immature or imperfect materials as are at disposal. Practically, there remain but the large Pæony-flowered, a very coarse type now, whatever may be its possibilities, and the newer, and certainly more pleasing, Collarette section. That one variety of this form should have received an award of merit shows that there is for it both possible popularity and development. In what direction should that development be directed? Flowers having broad, rounded, well-formed outer or guard petals may well be encouraged to form in their centres, as is seen in the Scabious, neat, compact cushions of petals, especially of pure white hue, on rich dark margins. But already colouring is seen in these Dahlias of very varied and unusual kinds; hence form of outer petal and compactness of cushion in the flowers, allied to very effective florescence on the plants in the garden, should become the aim of raisers.—A. D.

Aster puniceus pulcherrimus.—Anyone wanting a floral screen can hardly do better than plant this Giant Starwort. It came into flower, about September 14, and has made a brave display ever since. When used as a screen it is advisable to plant a double row in triangular fashion, and when the front-row plants have attained the height of, say, 2 feet, to pinch out the tops to secure density of growth right away from the base, and, given this, one obtains by the middle of September, or earlier when the summer is moist and dull, a mass of bright green foliage nearly 7 feet high, and a little later a perfect floral screen. The vigour of the plant naturally demands good treatment, and I have generally bastard-trenched the ground in which it was to be planted, working in a bit of good rough manure at the bottom of the trench. Under such conditions there is little danger of the plants suffering from a spell of hot, dry weather either in the matter of curtailment in height or loss of foliage, although in seasons like that of 1911 an early mulch and one good soaking of water are beneficial. It is not often this variety requires staking, the size and strength of stem being sufficient to keep it from dropping; but when it is necessary, just one stake for the main stem will suffice. The stiff, erect habit of the side shoots is a guarantee against any collapse, even in very rough weather. The flowers, especially the terminals, are large, often 2½ inches in diameter, and the yellow centres showing against the very pale blue petals help to build up an attractive bloom. It is, however, the vigour and habit of the plant and the size and density of the bright green foliage that render it valuable for the situations above noted.—A. G. B.

Tricuspidaria lanceolata.—I am obliged to your correspondent "H. P." for his note on page 391. He has made it clear that lanceolata should be used as the correct name of the plant

instead of hexapetala. I have unwittingly made another mistake. I believed when I wrote to you that my largest specimen was beginning to form its flowers for next year's bloom. But time has shown that the buds were growing for a very fine second bloom. The plant is covered with flower-buds, which daily increase in size. There are many beautiful flowers at the time of writing (September 23) in full bloom. Of course, this second bloom is altogether due to the wonderfully bright and warm weather we have experienced this summer, and which still continues, though we have had two or three chilly days and nights. It would be interesting to lovers of flowering shrubs and trees if any of your correspondents would mention cases of a second flowering which they may have noted. I have noticed a few second flowers on Berberis Darwinii, Buddleias variabilis and Veitchii (several), Choisya ternata (full of bloom), Cistus florentinus, Escallonia exoniensis (a large number), Pittosporum Tobira and Pyrus japonica. I have heard of an Apple tree not far from here which is said to be in full flower. But none of mine in the kitchen garden shows bloom.—(Rev.) William W. Flemyng, *Coolfin, Portlaw, County Waterford.*

Raising seedling Daffodils.—Amateur raisers of seedling Daffodils will welcome Mr. Lemesle Adams' notes on the subject, and all the more so as the raiser of King Cup is perfectly qualified to speak with authority based on a considerable experience. There are, doubtless, many amateurs who, like myself, have had to rely exclusively upon their own personal observation and experience in the crossing of the flowers and the management of the seedlings, the available literature on the subject being general and scanty. It seems to me that if amateurs having this valuable knowledge could be induced to publish short notes from week to week in the columns of your paper, it would be to their mutual benefit and a great impetus to this very fascinating hobby. To set the ball rolling I will touch shortly upon a point which I do not remember to have seen mentioned by any of the authorities. We all, I suppose, know that feeling of disappointment which comes when, having finished our crossing operations and watched the steady swelling of the pods, especially on plants which are habitually shy seeders, but often on others which produce seed freely, we see them turn brown and soft and wither away. The desire, if one may so express it, to produce seed has been there, but the result is failure. What is the cause of the failure? Is the formation of pods indicative of a restricted fertility? Some of the varieties that form these useless pods at times and with certain pollens produce a small number of seeds, such as, with me, Gloria Mundi; and what is the difference between such plants and others, such as Barri conspicuus, Ariadne, &c., which, so far as my experience goes, never form pods at all under any circumstances? Is it a question of soil, situation, pollen, moisture, or what? When I left home for a holiday at the beginning of last June, my plants were showing a very satisfactory crop of capsules. On my return, three weeks later, a very large proportion of these were shrivelled and done for. The weather had been hot and dry, and the failures were general. Was want of moisture at a critical period responsible for the failure of the shy seeders and free seeders alike? It is with the object of eliciting a discussion on such points as this that I have ventured to ask your assistance in the matter.—James Simkins, *Solihull.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

Cucumbers.—To keep up a supply of fruits during the autumn and winter months, the plants must be very carefully tended. Regulate and tie the young growths thinly over the trellis and stop the shoots at the third or fourth leaf. Watering must be done carefully. Under no consideration must water which is below the temperature of the house be applied to the roots, neither must it be given in too large quantities, as this will quickly lower the temperature of the heating materials and probably bring on an attack of the Cucumber spot. Syringing must also be done more sparingly now than formerly. Should the "spot" appear on the leaves, discontinue syringing altogether; but the atmosphere must be kept moist by frequently damping down the paths and walls in the house. Keep a night temperature of 70°, unless the outside conditions are very cold, when 5° lower will be suitable.

Tomatoes.—Pay particular attention to the setting of the fruits, as those which are set at this date will be of great value. The plants will now be in constant need of artificial heat, and the temperature at night should not fall below 60°. Those plants which have set three or four trusses of fruits will benefit by a surface dressing of some light, rich material. Admit air to the house on all favourable occasions, but avoid cold draughts. A sowing of some free-setting variety may be made now for supplying fruits early in the spring. The seedlings must be kept growing in a light house near to the glass in a minimum temperature of 60°.

Asparagus.—When this is thoroughly ripened, cut it down and clean the beds of all rubbish. Old-established beds will be greatly benefited by applying a good dressing of well-decomposed farmyard manure. Some artificial manure may also be thrown over the surface of the beds at this time for the autumn and winter rains to wash in.

Seakale.—Remove some of the lower leaves so that air can pass freely among the crowns to ripen them. Towards the end of the month some of the roots may be lifted and placed in a shed for two or three weeks preparatory to forcing them.

Protection Against Frost.—The latest crops of Dwarf Beans should be given some protection to keep off frost. Frames or lights placed over them form the best means of protection if they are available; but, failing these, provision should be made so that mats may be conveniently thrown over them during frosty nights. The pods should be kept closely gathered, tied into bundles and placed on end in shallow water. Cauliflowers and autumn Broccoli may be protected by breaking a few of the leaves over the hearts. Those which are fit for use may be dug up and placed closely together in a cool shed. Lettuce and Endive must also be taken up and placed closely together in a cold frame when hard frost is imminent. Continue to prick out young Lettuce plants from the latest sowing into cold frames, if these are available. It is no easy matter to keep up a continuous supply of Parsley during the winter months. The crops which were sown in a sheltered position for this purpose should be covered during very severe weather.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Cauliflowers.—The young plants from seed sown in August and intended for the earliest crop next season should now be pricked out where they will remain through the winter. Hand-lights or cold frames are equally suitable for this purpose; but these must be kept well ventilated during mild weather, or the plants will grow too freely and be too large and soft at planting-out-time. During the past few years I have wintered the Cauliflower plants successfully by pricking them out under the front wall of a lean-to vinery having, of course, a southern exposure. Precaution must be taken to see that they do not suffer from drip or heavy falls of snow sliding down the roof of the vinery. A board fixed temporarily over them, wide enough to shoot off the snow, is all that is required. The warmth from the vinery, together with abundance of air and a comparatively dry root-run, seem to produce fine sturdy plants that are not always obtainable when frames are in use. Autumn Cauliflowers now turning in must have the heads protected from frost by breaking over a few of the large leaves. At this date we find Veitch's Self-protecting Broccoli of good service for following up the latest batches of Cauliflower.

Celery.—Continue to earth-up Celery by giving it small additions of soil every ten days or so until growth ceases. Early crops should now be ready for use. Late plantations have suffered a good deal from lack of moisture. If possible, give them a soaking of liquid manure before earthing up.

Root Crops.—Beetroot and Carrots should now be lifted and stored. Select a place with a dry foundation, build the roots in a clamp or pit with the crowns towards the outside, and sprinkle some fine sand over each layer as building proceeds. Do not give them their final covering for some time, or decay may set in. A covering of Wheat straw may be used and tufts left here and there for ventilation, finally covering with 9 inches of soil.

Flower Garden.

Storing.—Many tender plants will now need attention. Specimens should be lifted and put in safe quarters before they are damaged by frost. Dahlia roots and Begonia tubers will require to be housed before the frost gets too severe. Select a dry day for lifting, and allow them to lie as long in the sun as possible before storing them. Do not shake too much of the soil from the Begonia tubers, and place them in a dry, frost-proof store, from which they need not be disturbed till March.

Protection.—In anticipation of early frosts, protecting material should be in readiness. Bracken forms one of the best of winter coverings while it remains fairly dry; but if once thoroughly wet with much snow, its benefits are open to question. For the protection of tender Roses, especially standards, green Spruce branches judiciously used have much to recommend them. They admit a certain amount of light and air, and yet give the necessary shelter when it is most needed. Tall standards forming umbrella or weeping specimens require a little more care. Protecting branches should be worked in among the shoots and firmly fixed to the wire framework. This will add considerably to their weight and resistance in high winds, and prevent their being blown over. A temporary system of support should be provided for them. Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE BASKET CLASS FOR ROSES.

THIRTY years ago all Roses were exhibited at Rose shows in exhibition boxes as we have them now. Why? Because the Hybrid Perpetual and Tea-scented Roses were the only Roses exhibited, and the exhibition box was, and still remains, the most suitable method of staging solitary specimen blooms.

When the taste for summer-flowering varieties, both dwarf and pillar Roses, revived, and impetus was given to the modern development of this class, then came Crimson Rambler and all those other cluster Roses with which we are now familiar. If, however, these were to have a place at Rose shows, it was felt that some receptacle other than the exhibition box must be provided. The vase was seen to be the most suitable, and, consequently, for all Roses that were not "exhibition" Roses, vase classes were provided in the exhibition schedules.

But of recent years another class of Rose has been introduced, for which we are principally indebted to Continental raisers; Roses whose chief merit is found in colour and abundance of bloom, regardless of size and form, such varieties, for instance, as Prince de Bulgarie, Le Progrès, Mme. Leon Pain and General Macarthur. Such as these were not suited for the exhibition class, where form and size receive the first consideration, and they were too heavy and stiff for bunches in the decorative section. They seemed to form an intermediate class between the exhibition and the decorative section. Since, therefore, they were neither the one nor the other, they were seldom seen in the competitive classes at Rose exhibitions. How, then, were they to be brought before the public?

Now the majority of these intermediate Roses are most suitable for bedding and massing, suitable for growing in beds, one variety in each bed, and it was realised that some method of exhibiting should be devised whereby their suitability for this purpose should be presented; and whereby the variety in all its stages, from the young succulent growth with buds just formed up to the full-blown flower, could best be seen. Round baskets, a kind of miniature bushel basket or sieve, seemed a suitable receptacle, so the Council of the National Rose Society adopted the suggestion of its exhibitions committee, and incorporated in its summer show schedules for the current year, as an experiment, some classes for Roses staged in baskets. The description of these classes runs thus: "Baskets of cut Roses in distinct varieties, each variety in a separate basket. The baskets to be round, without handles, and not to exceed 14 inches inside diameter."

The experiment was successful at the metropolitan exhibition. The classes for nine and five baskets in the trade division were well filled, and the beauty of the display exceeded the anticipation of many. It was evident that here was an excellent way in which to bring these intermediate varieties before the public. At the approach of September, when, after the sustained drought, the success of the coming autumn exhibition seemed to be in peril, the hon. secretary and the president on their own responsibility added some basket classes to the schedule of the autumn show, and those who attended the exhibition will all agree that the basket classes were a great feature of the show.

These basket classes have come to stay, and one ventures to predict for them a great future; we may expect variations in the size and shape of the baskets and developments in the method of staging, and we may rest assured that from henceforth every society which desires to keep abreast of the times will see to it that its Rose show schedules contain basket classes. The accompanying illustration will give some idea of the appearance of these baskets.



A BASKET OF ROSES MRS. AARON WARD EXHIBITED AT THE NATIONAL ROSE SOCIETY'S AUTUMN SHOW.

JOSEPH H. PEMBERTON.

HINTS ON PLANTING ROSES.

NEVER in any time of its history has the Rose been more extensively planted than to-day. Go where one will, there the Rose abounds. It has largely displaced the ordinary bedding plant, and this displacement is likely to continue. It is without a doubt the finest autumn-flowering plant of the garden, to say nothing of its regal appearance in summer.

ROSES TO PLANT.

Before I give any details as to planting Roses, I would offer a few suggestions as to what one should plant. Undoubtedly, the Hybrid Teas are the popular favourites, and rightly receive our homage; but it should be remembered that there are some charming gems in the true Teas, the China or Monthly section, the Polyantha or Fairy Roses, and also in the fragrant, bold-flowered and brilliant-coloured Hybrid Perpetuals. These latter must not predominate, for they are practically useless in autumn save for a very few sorts, and should never enter into the decorative Rose garden, where one desires a fine and continuous effect from the beds from June to October.

The lovely little Polyantha Roses should be freely employed as undergrowth beneath standard Roses, edgings to beds of standards, edgings to walks and drives, and also for small pots for the conservatory. They are also charming when planted in window-boxes.

A WARNING NOTE.

In making a selection of sorts, it is always best to take the advice of some reliable guide, and not altogether what one sees at the shows, for it should be remembered that most of the blooms exhibited by nurserymen are cut from yearling plants, and may not be nearly so good from plants that are two years old. Above all things, do not plant new Roses to the exclusion of old tested varieties, unless there is a special reason for so doing. It is folly to pay a long price for a Rose because it is new, when perhaps a far better sort can be obtained for a very low sum. Grouping the Roses is a question that often troubles the novice, and "shall we mix," or "shall we have a bed of a sort," is a detail that must be settled. If a bed of a sort be adopted, then the variety of sorts is restricted; but perhaps the decorative effect is obtained. Personally, I would rather have a large variety of sorts than a few in big lots; but then tastes differ, and it is good it is so. I like to see a bed of, say, half-standards of one colour, with a good contrasting colour as bushes beneath. Beds of one colour, but of different sorts, could be planted with good effect. Say a circular bed be divided into quarters, it would enable one to have four sorts instead of one, and the effect would be equally good, although we should have variety of form. In this case care must be taken that the growths of the four sorts harmonise.

Many Rose gardens are spoilt by the appearance of unhealthy-looking standard Roses, and I would advise all who are planting this year to be very cautious how the standard Rose is introduced; and where it is planted to see that the varieties are such that good heads can result. Lovely as it is, no one should think of growing Marquise de Sinety as a standard, whereas Frau Karl Druschki, the Lyon Rose, Hugh Dickson, &c., make grand standards. Standard Roses by the side of drives look well if surrounded by a circle of Polyantha Roses. Avoid planting other subjects with the Roses. Although Violas and bulbous plants are sometimes

admissible, I am convinced the Roses, as a rule, suffer, and it is best to keep the beds for Roses alone. I would strongly urge on planters the advantages of training strong-growing Roses like Grüss an Teplitz, Hugh Dickson and J. B. Clark on to tripods about 5 feet high. When clothed in two or three years they present a fine effect, and much more bloom is obtained from these sorts. Isolated among bush Roses they have a nice effect—quite equal to a standard Rose. Pillar Roses should abound on every hand. There is no more profitable way of cultivating certain free-growing sorts, and they require very little more room than a bush Rose. I would also strongly advocate the planting of isolated specimens of a vigorous nature in any available space. Roses such as Zepherin Drouhin, Bardou Job, Conrad F. Meyer, Gottfried Keller, and Juliet are best so planted where they can grow into big bushes.

Hedges of Roses

should take the place of Privet and the usual hedge plants, especially near the Rose garden; and as a shelter from the north and east, tall screens of wichuraiana Roses are admirable and cheap. Long walks with pillars of rambler and other Roses present a really grand effect, and as they develop some can span the walk while others can grow on as pillars. Before making a garden ugly with unsightly wire arches, let the Roses grow up first for a couple of years, securing them to rustic poles, and even when the iron arches are put in position, if they must be used, place woodwork between the Rose growths and the iron. If large quantities of Roses are wanted for cutting purposes, let them be planted in the reserve garden, for most assuredly one cannot have a decorative effect in the garden if the plants are to be shorn of their bloom for the dinner-table.

When Preparing the Beds

do not be induced to go to the expense of importing new soil from a distance. This is quite unnecessary. Let the soil be well trenched, adding good strong cow-manure to light soil and good farmyard manure to heavy soil. Basic slag should be introduced to the lower soil of all new beds at the rate of about 6oz. per square yard, and quarter-inch bones to the upper soil; or, if preferred, a handful of the latter may be put to each Rose just before the top soil is made level after the roots are settled in position.

Select fine weather for planting, and be careful to plant early—any time from mid-October until the end of November; then again in February, March and April. Some beds planted by the writer early in May last are grand just now, and not a plant was lost. They were put out on raised beds, the soil having been well prepared a long time previously, and they were cut back to within an inch or 2 inches of their base a few weeks prior to planting. Drainage is a very important detail to see to. No stagnant water should be allowed to accumulate in the beds. Should this be the case, the plants will succumb. Shallow planting is also advised. Standard Roses should have their roots no more than 6 inches beneath the surface, and bush Roses should have the junction where budded placed about an inch below the surface. Walter Easlea.

WHERE SHALL WE EXHIBIT ROSE SPORTS?

I SHOULD like to ask my rosarian friends—such as, for example, the president or secretary of the National Rose Society, or any of our experienced exhibitors—a question which has puzzled me, How ought you to exhibit a Rose which has, so to speak, been born untrue? All sports, of course, have some tendency to revert, especially in autumn, mostly only by streaks or flushes of parental colour. But a few years ago I had a rather old standard of Souvenir de S. A. Prince which produced two obvious blooms of Souvenir d'un Ami, together with many of its own pure white kind. Now, if in a class for twelve distinct Teas I had exhibited one of the two blooms as Souvenir de S. A. Prince and a Souvenir d'un Ami from another tree, I should unquestionably have been disqualified—quite unjustly, but quite inevitably—for duplicates. If, on the other hand, being hard pressed for twelve, I had exhibited the bloom as Souvenir d'un Ami, a question of casuistry more suitable for my clerical than my rosarian profession would have arisen. So I want to ask our great authorities, What ought to be done?

I have often wanted to raise the question before, but have been moved to take up the pen by the behaviour of several Roses now at the end of this marvellous summer. I am sure I could defy any expert to name some of my blooms. The most remarkable example at the present moment is a maiden standard of Dean Hole, which, after blooming normally in the summer, has now none but deep rosy pink flowers, running into veins in the fascinating way of Mrs. W. J. Grant. I am certain I could have shown one bloom as Mrs. W. J. Grant unchallenged. I turned back, by the way, to Mr. Daniel's extremely interesting list of parentages in The Garden to see whether it was a seed parent of Dean Hole; but that Rose is, unhappily, omitted. Of all my Roses, the one which has most rejoiced in and profited by the glorious late summer is E. Veyrat Hermanos, one of our loveliest whenever it will condescend to open. This has been true to type, though more superbly coloured than usual. But what can the National Rose Society's catalogue mean by calling it "a shy bloomer except on walls?" It must be for "a shy opener," which is quite a different thing. I have three standards in the open, all of which are the most recklessly profuse bloomers in the whole garden. They come in clusters of at least three buds, commonly five, and must be disbudded by the basketful to get any good blooms. I should like to know the parentage of this very remarkable Rose.

Shorwell Vicarage, Isle of Wight. G. E. Jeans.

ROSE DOROTHY PERKINS ON RUSTIC POLES.

No one could wish to see this ever-popular Rose grown to greater advantage than when allowed to ramble almost at will over rustic-work arranged either as tripods or as a primitive fence. This method of training is simplicity itself. All that is required is to have the soil deeply worked before planting—this is especially necessary for climbing or rambling Roses—the poles must be rigid, and the young Rose shoots in the growing season need an occasional tie to prevent them from going astray. In gardens where space is limited, it is an excellent plan to train Roses over rustic poles arranged as tripods, and the grower will be rewarded in due season with rambling branches which hang over and clothe the rustic-work to the ground-level with a profusion of flowers such as is seen in the illustration. Let it not be supposed, however, that Dorothy Perkins is the only suitable variety, for the whole of the wichuraiana Roses, likewise Crimson Rambler, Dundee Rambler, Jersey Beauty and Longworth Rambler, to mention a few of scores of others, are all adapted for this simple but effective mode of culture. A bed such as the one illustrated adds a beautiful and distinctive feature to a garden and entails very little trouble.



A LARGE BED OF ROSE DOROTHY PERKINS.

GROWING ROSES IN LONDON.

IT may be advisable at the outset to give the exact situation of my garden, which I have occupied for the past forty years and in which I have been very successful. It is due north-east from St. Paul's, in the four-mile radius from Charing Cross and within two miles of Shoreditch Church, which used to be considered the centre of density of the smoke atmosphere of London, so I can fairly claim it to be a London garden.

On taking over my garden it was more or less a rubbish-heap, and had been manured on many occasions with the contents of the dustbin—not very good stuff for Roses. Wishing to keep up my old hobby—for it is a hobby with me—I set to work to make improvements by trenching the ground, and, finding it rested on a bed of gravel, I did not use any drainage material, but worked in some very small old mortar to sweeten the soil, if possible. This was done in September and left in that condition till the following March. I had in the meantime ordered a few bush Roses from the nursery. I got what I ordered, but was disappointed; I had left it too late, and the best plants were sold. It was my own fault, and I had to make the best of it and plant them. I opened out a trench 3 feet wide and 1 foot deep, and set out the plants 3 feet apart, the roots having been trimmed. These were pegged out with some hooked pegs cut from an old Birch broom and sprinkled over with some loam—the best I could get at the time—and filled in with the garden soil, well trodden in.

In April, as soon as they began to show some small green shoots, I cut off the soft tips, for I do not believe in hard cutting down. I did not lose one. I began to feed them a little with weak manure-water in the form of a teaspoonful of sulphate of ammonia to one gallon of water, which encouraged good growth. As the plants advanced with the season and began to show a few flowers, I continued to feed occasionally, both with chemical and animal manures, and I continue this at the present time as often as twice, and sometimes three times, a week, alternating the animal and chemical manures as occasion may require. I like animal manure and use a lot of it; in fact, my Roses never have clear water unless it comes in the form of rain, and even then I give them some as a stimulant. Nitrate of soda, 1oz. to the gallon, helps them and makes grand foliage.

As to pruning, I do not think anyone can tell exactly how to prune without seeing the trees; but that is often impossible. Do not leave old wood when it can be replaced with young, and if quantities of flowers are required, do not prune too hard; if quality is wanted, we must prune hard. I must confess I prefer a medium quantity of good flowers, with plenty of substance in them, to a larger quantity of small flowers that the first shower knocks to pieces or wind scatters their petals over the ground.

As to manure, with the exception of liquid I use very little, my ground being very light and porous. I use strong yellow clay in the following manner: I get it just as it is dug out in spits each autumn, and place it on top of the ground, about one lump to a square yard, and leave it there all the winter. In March it falls to pieces like lumps of lime that have been slaked. I fork this in the ground and find the Roses like it, their roots and general appearance being very much improved with the treatment. To make animal manure-water, I put into a tank containing about sixty gallons of water a peck of soot and two bushels of fresh horse-manure. In the centre of the tank I sink to the level of the top an old basket to act as a strainer, and this prevents the spout of the water-can being stopped. It also prevents the soot from swimming to the top, so that if you spill a little there is no dirty foliage or crude manure to fill up the pores of the soil.

As I have written this article especially to help any amateurs who have doubts about feeding, I say and maintain that, provided there is proper and sufficient drainage, you cannot possibly overfeed if the liquid is not made above the usual strength. In addition to the liquid animal manure described above, I use nitrate of soda, sulphate of ammonia, nitrate of potash, Peruvian guano and superphosphate of lime at various times during the season, and one cannot go wrong by using any of the above of the strength of 1oz. to the gallon. Do not use it on freshly-planted trees; wait till they are fairly on the move. I prefer early October for planting. If you cannot get them done by that time, select your plants and ask your nurseryman to keep them in the ground till March.

During the time I have been growing Roses I have had a good many sorts, but those I find do the best with me are the following: Alfred Colomb, Baroness Rothschild, Charles Lefebvre, Duke of Edinburgh, Dupuy Jamain, Caroline Testout, Hugh Dickson, J. B. Clark, Ulrich Brunner, Gloire de Dijon, Souvenir d'un Ami, Paul Neyron, La France, Maman Cochet, Killarney and its white variety, Lady Hillingdon, W. A. Richardson, Marie van Houtte, Melanie Soupert and M. Constant Soupert. Mrs. W. J. Grant, with me, is not fit for the stokehole fire, and Rayon d'Or has turned out to be a rogue; but I am giving it and Lyon Rose another trial.

6, *Avenue Road, Clapton.* EDWARD F. KEMP.



AN OLD-FASHIONED PATHWAY AND BORDERS IN THE REV. J. H. PEMBERTON'S GARDEN.

THE PRESIDENT OF THE NATIONAL ROSE SOCIETY.

THE popularity of the Rose, perhaps in greater degree than that of any other flower, is due very largely to the efforts of amateurs, those who cultivate Roses and raise new varieties purely for the love of the work. And among these amateurs the clergy take a front rank. Two of the most prominent rosarians of past years were Dean Hole and the Rev. Foster-Melliar; and at the present time the National Rose Society is fortunate in having as its president the Rev. J. H. Pemberton, as keen a rosarian in every way as his respected predecessors. For more than thirty years he has laboured for the Rose and its National Society, and although the work he has done may not be so widely known as one would wish, it is none the less valuable. His book on Roses, published in 1908, is a lasting memento of his efforts on behalf of the Rose; and it was gratifying to many friends of the reverend gentleman when, in 1909, the National Rose Society presented him with the Dean Hole Memorial Medal and, in 1910, elected him president for the ensuing year.

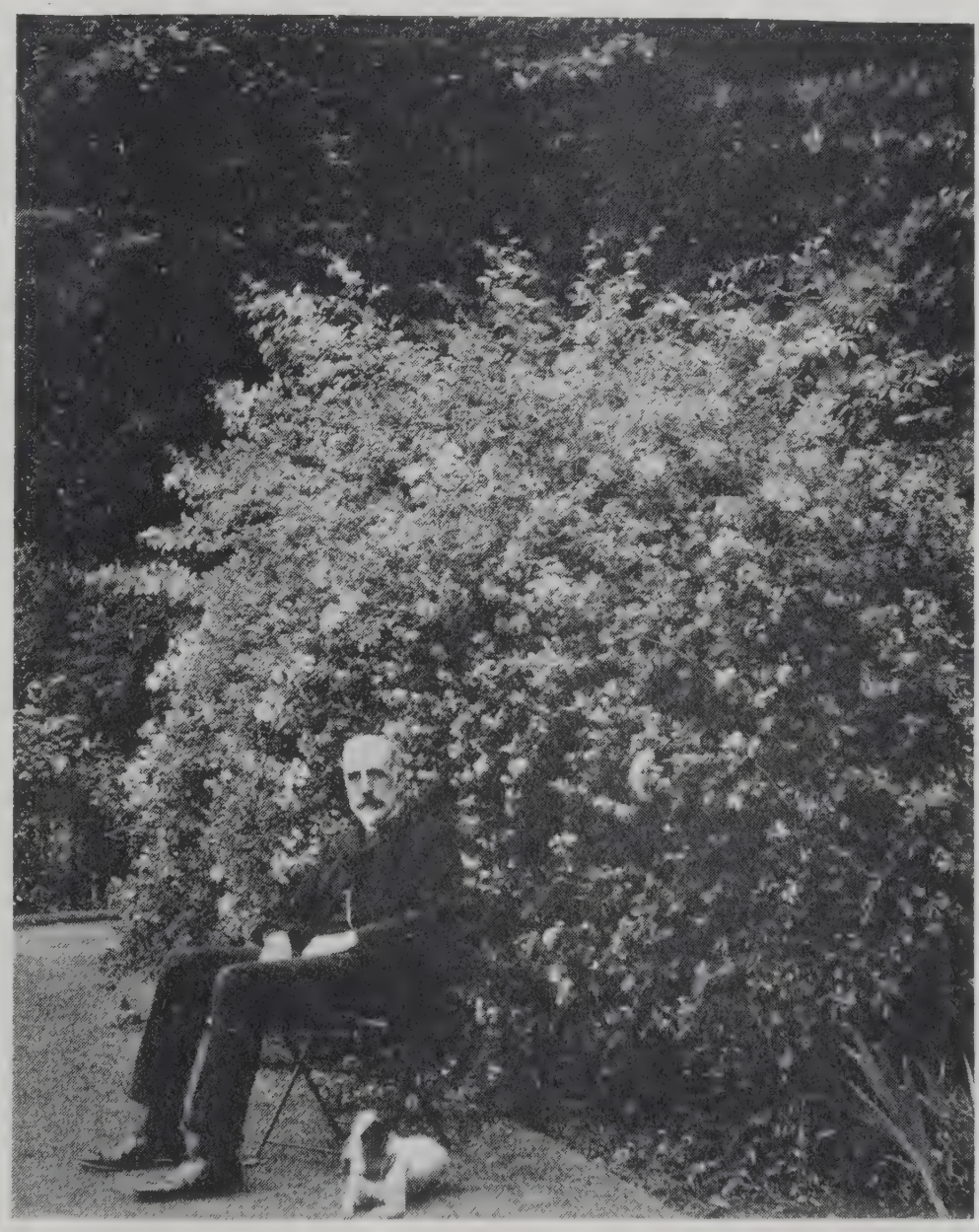
It was our good fortune, during the hot and sunny days of June, to visit Mr. Pemberton and his old-world house and garden at Havering-atte-Bower, a quaint village situated in lovely undulating country about three miles from Romford. Near by the house, on the village green, the old stocks

still exist as a reminder of times when justice was appeased in a more summary, though perhaps none the less effective, manner than it is at present. Mr. Pemberton's residence is one of the few round houses in existence in this country at the present time, and is an object of much interest to visitors.

In the garden attached to the house there are many evidences of bygone days, signs that are, happily, preserved by Mr. Pemberton, who seems to have quite a genius for planting the Roses so that they are in keeping with the surroundings. Thus at the back of the border on the left of the illustration on page 494 many of the old Bourbon and other sweet-scented Roses are allowed to grow almost wild, the flower-bedecked shoots tumbling over each other in a careless yet delightful manner. In the walled garden adjoining, one comes across big, free-grown specimens of such varieties as Claire Jacquier and Electra, a bush of the former being illustrated on page 499. On the lawn near the house will be found other free-growing Roses and Rose species, the large and beautiful plant of multiflora simplex, the Blackberry Rose (see illustration), with its background of tall Elm trees, making a picture of rare beauty.

It is, however, apart from the garden proper that Mr. Pemberton grows his best Roses—or ought we to say exhibition blooms? The natural soil at Havering is not ideal for the cultivation of the Queen of Flowers, so that it has been necessary to utilise portions of the fields adjoining the house and garden where soil of rather better quality was to be found. Here, fenced off with rude fences and open to the four winds of heaven, the Roses grow and blow, and here it is that new seedlings of Mr. Pemberton's own raising first open their flowers. Danäe, a beautiful yellow, perpetual-flowering climber, is perhaps the most notable that has been raised at Havering so far. In the bud stage the blooms are bright canary yellow, but as the flowers open this changes to pale primrose. A perpetual-flowering climber, with the vigour, say, of Dorothy Perkins and flowers of the colour of Rayon d'Or, is Mr. Pemberton's ambition, an ambition that every Rose-lover will, we feel sure, wish speedily realised On every hand seedling Roses and Rose species may be seen, many of them lusty and beautiful, the effect of these among the older, named varieties being most pleasing and quite in keeping with the surroundings at Havering.

No less keen a rosarian is Miss A. F. Pemberton, and to her aid Mr. Pemberton freely admits he is indebted largely for the many successes he has achieved at the principal Rose exhibitions throughout the country during the last decade. That they may both long be spared to enjoy the flowers they love so well is the ardent wish of all who have the honour of knowing them.



THE REV. J. H. PEMBERTON, PRESIDENT OF THE NATIONAL ROSE SOCIETY, IN HIS GARDEN. THE ROSE IS MULTIFLORA SIMPLEX.

NEW TEA ROSES.

ABOUT new and recent Teas a lot might be written if I could wield a more fluent pen. It is always difficult to meet the wishes of everyone, and I know that many readers will query the few remarks here. I remember, years ago, when Messrs. A. Dickson and Sons brought their first flowers of that lovely Tea Muriel Grahame to the Crystal Palace. It did not seem very distinct to me at the time. Mr. A. Dickson was showing it to my brother and myself, and we neither thought it very distinct. Of course, we were wrong. Well, of the new Teas, for an all-round Rose I can easily give the palm to Molly Sharman Crawford, a really genuine Tea. As an exhibition Rose you may untie it half-an-hour before the judges come round, and the flower stands like a rock. It is a splendid shape too. As a garden Rose there is nothing to equal it in whites—dwarf, bushy and always in bloom. The beds of this Rose now are one mass of white and the flowers can be cut on stalks 18 inches long.

So much has been seen of Lady Hillingdon that this lovely golden yellow Rose scarcely requires drawing attention to. This is another good grower and profuse bloomer. Even the buds put in this summer have nearly all grown out, and we are cutting blooms from the shoots. Messrs. Mount are to be congratulated on this Rose. A fine garden variety, and sometimes may be cut good enough for the exhibition box in a cool summer.

Mrs. Foley Hobbs was sent out by Messrs. Alex. Dickson and Sons with eulogies absolutely Dicksonian (now copied by others), but quite deservedly. Although they say emphatically it is an exhibition Tea, we have proved this to be a fine sort for cutting, and it is a good garden Rose too, of perfect shape, delicate ivory white, with a slight tinge in the centre sometimes of pink, which reminds one a little of the old Tea alba rosea of days gone by. It is a grand Rose. Mrs. Hubert Taylor, from the same firm, is a good grower and quite an exhibition Rose. I do not say this to mean it is not free-blooming; it is free. The colour is shell pink, of fine form and the Rose looks like a sport from Mme. Cusin, if I may be allowed to whisper this; but in any case it is a much stronger grower, and may be cut with nice long stems, which is a great advantage.

Recuerdo de Antonio Peluffo comes from Messrs. Soupert and Notting (and I hope we may be allowed to drop the first two words of the name), and is a seedling from Mme. Constant Soupert. The colour is chrome yellow, with a deeper centre, very fine form, stiff, large petals, and looks like a good exhibition variety. We have had some fine big blooms of this Rose.

Mrs. H. Stevens, from Messrs. McGredy, is another good new white Tea with a slight fawn shading. The petals are large and with a pointed centre. At a distance this Rose looks very much like Innocente Pirola, but I think it will prove hardier and make a good bedding variety, and exhibition Rose too. The colour as described by the raiser is chrome yellow, but all the blooms we have had here are nearly pure white and of very good shape.

Alexander Hill Gray, named after the famous amateur Tea specialist, is another good variety from Newtownards. It was awarded the National Rose Society's gold medal, and it will be a fine bloom for exhibition. Messrs. Dickson were showing a pillar of this at the autumn show. I like to see Roses shown in the autumn. To my mind this puts the seal of satisfaction on a Rose. The colour reminds me very much of Perle des Jardins. Beautifully-scented and good-shaped flowers were shown. There were a good many smallish blooms, but there were over a hundred on the pillar, so of necessity there would be a number of small ones. (Awarded a gold medal, Crystal Palace, September 28, 1911.) Miss Alice de Rothschild, from the same firm, has disappointed me up till now; perhaps the dry season has been against it. It has been described as a dwarf Maréchal Niel, but although there is Maréchal Niel scent, there the comparison ends The blooms

with us have been flat and the petals short; a free-blooming variety and very pretty. Nita Weldon has been a much greater success, again from the same firm; ivory white, flushed with pink. It is an invaluable Rose for exhibitors, and will keep well in a box to the last minute. This is the sort of Rose the amateur should grow, because, although one may get good flowers for the show-bench, this Rose is a profuse bloomer and good for cutting.

If I may go back so far as 1908, I should like to mention W. R. Smith, a Tea which has given great satisfaction. Of strong, sturdy growth, this Rose is ever blooming on stiff, thick stems, and the leathery foliage is dark green and forms a good big bush. If ever a Rose could be called mildew-proof, this is the one.

A. E. PRINCE.

Longworth, Berks.

A PRETTY ROSE ARCH.

OUR illustration depicts a very beautiful arch of the old Ayrshire Rose Ruga growing at Fife Lodge, Great Bookham. It is a variety of this clambering tribe not often met with, but its exquisite and dainty flesh pink tinted blooms are quite a large size for an Ayrshire; indeed, one would imagine the Rose had some Tea blood in it, so delicately beautiful are its blooms. As is well known, the Ayrshires make fine, fast-growing Roses for arches and pergolas, one of the best being Bennett's Seedling. The writer has seen a huge specimen of this variety growing in a park that was fully 30 yards in circumference, a sufficient evidence of what such Roses are capable when given plenty of space for development.

ROSE MRS. MAYNARD SINTON, H.T.

To obtain such sweet fragrance as this Hybrid Tea Rose possesses in what is undoubtedly one of our grandest novelties in show blooms is indeed a great achievement. I am hoping that in the near future the aspersion as to the want of fragrance in modern Roses, which is so frequently made, will be repelled; and certainly this will be the case if varieties are produced such as the one under notice. Exhibitors will regard this Rose as perfection in form and shape, but, if anything, its great size will compel us to be very careful where we locate it, as it may tend to make others appear much undersized, as Mildred Grant often does. The colour is silvery white with porcelain shading, a most clear and delicate-coloured flower. Its growth is not vigorous, but sturdy, and probably it will be looked upon mainly as an exhibition Rose. This variety was raised by Messrs. S. McGredy and Son, and sent out last year. It received the gold medal of the National Rose Society at Luton in 1909. P.

COLOURED PLATE.

PLATE 1436.

PERNETIANA ROSES.

IT is now some ninety-four years since M. Philippe Noisette of North America sent to Paris his hybrid Rose with which his name has since become associated, and to-day we speak of Noisette Roses quite familiarly, not giving a thought, perhaps, as to how this group first obtained its designation.

It is quite within the fitness of things that M. Pernet-Ducher should christen the tribe upon which these few remarks are based as "Pernetiana" Roses, for he was the raiser of Soleil d'Or, a Rose that was quite an epoch-making hybrid, and from which have sprung several most wonderful Roses that at present constitute the tribe. Probably, when we understand the Mendelian theory more thoroughly, it will be comparatively easy for the Rose hybridist to create even more marvellous breaks than M. Pernet-Ducher achieved with Soleil d'Or.

In a letter before me, the talented son of a talented father, M. Claude Pernet, believes that this Pernetiana tribe will be the tribe of the future, and he informs me that his father has some marvellous seedlings of this group, Roses that will surpass even the Lyon, Marquise de Sinety and others, and which, I am sure, growers of all types of Roses will eagerly look out for.

The beautiful Rose Rayon d'Or, of which a coloured plate is given with this issue of THE GARDEN, has already achieved a considerable notoriety, and cannot but be welcomed by all who cherish the Rose as a garden plant, for such it will be. What a colour it is, a beautiful cadmium yellow as it opens, toning to sunflower yellow when fully expanded. What gives the Rose a great charm are the streaks and blotches of scarlet crimson on the outer petals, producing a most unique colour-blending in the bud stage. It is a fine grower, with branching habit, the foliage, almost immune from mildew, being a rich bronzy green, glossy and beautiful. That it will make a grand standard, no one can disbelieve who has seen it growing; and I can just imagine what a splendid effect three or four year old trees of this Rose would produce on a lawn, massed below with dozens of bushes of Château de Clos Vougeot. It possesses the delightful fragrance of Pineapple, a curious feature that is evident in the foliage of some other varieties of the Pernetiana group, and unquestionably derived from Soleil d'Or.

M. Pernet-Ducher is working hard on this group, and he is directing his attention to the raising of hardy varieties, perpetual flowering and disease resisting. This successful hybridist has some marvellous novelties in the Pernetiana group which will be introduced in due course. One variety is of such a grand colour that it fairly makes one long to possess it. Its colour is deep terra-cotta, lightened with a glowing salmon red. This cannot fail to become a very popular Rose for massing, its growths being so even and every one crowned with bloom. It is to be named Mme. Edouard Herriot.

Still another beauty will soon be forthcoming in the variety named Willowmere. The raiser considers this to be even superior to his Lyon Rose, as it grows more erect and holds its large flowers firmly upon the stem. The petals are of great depth. In the bud it resembles Frau Karl Druschki in form, but the colouring is after the Lyon type, although not quite so coppery. Another very beautiful gem named Cissie Easlea is a yellow variety growing like Mme. Ravary, but far superior to that popular Rose. These are but two or three of the more advanced novelties for the future; but, from what one can see, the Pernetiana group has come to stay.

Varieties already distributed and belonging to the Pernetiana Roses are Beauté de Lyon, a very strong grower much resembling Soleil d'Or in habit, but with reddish-coloured wood in its young stage, huge prickles and sage green foliage. The



AN ARCH OF AYRSHIRE ROSES.

colour of this Rose is really marvellous—coral red the raiser describes it, slightly shaded with yellow. It is a colour that catches the eye at once, and has been "spotted" immediately this season whenever visitors were among the Roses. The flower is not great in itself and the plant not very free-flowering, but it is a beauty for colour.

Viscountess Enfield is a flower something like Viscountess Folkestone, with a beautiful coppery shading, producing a unique bloom of much charm, and highly decorative in the garden.

Arthur R. Goodwin is one of the few really good new Roses of the last five years; it has leaped into popularity and will soon be planted by the thousand. No one can say it does not belong to this group, for its formidable prickles proclaim this fact. Lovely big bunches of flat-shaped coppery orange flowers, shading to salmon pink, are produced, and it is a really grand decorative sort.

Lyon Rose needs no praise or description from me. With some it succeeds admirably, while with others it has not been a success. It is undoubtedly a Rose of sterling merit and is worth any amount of trouble to induce it to succeed, and if it does hang its head, the colour of the back of the flowers is as lovely as the face.

Juliet is as great a marvel as Lyon Rose, and has evidently charmed most people. It is a wonderful blending of two colours—old gold and carmine—and the half-open flowers are quite of show form. I have seen one or two first-rate flowers in the show boxes this year, notably one at Ulverston in Messrs. Dickson's first-prize box. It is a most vigorous grower, and will probably be employed as a free bush or as a pillar, or, perhaps best of all, as a standard, but it is not of much good as an autumnal. Its fragrance is delightful.

Soleil d'Angers, a deep-coloured sport of Soleil d'Or, is wonderfully like Juliet in the bud, but is rather an indifferent sort when fully blown, although a good colour.

Other good things of this young tribe are Louis Barbier, Entente Cordiale (Guillot) and Les Rosati, and no doubt others will follow from the many raisers who are devoting their time and attention to the production of even more beautiful novelties than we have at present. While some, like the varieties named above, possess such a distinct resemblance to the Briar-like original of the Pernetiana group, others favour the Hybrid Teas, and with such, no doubt, they will be classed. An instance of this is seen in the lovely new Rose Sunburst. This, although it has Soleil d'Or as its pollen parent, strongly resembles the Hybrid Teas in growth, hence its exclusion from the list of Pernetiana Roses. P.

[The flowers from which the coloured plate presented with this issue was prepared were kindly supplied by Messrs. Stuart Low and Co., Bush Hill Park, Enfield.—ED.]

ROSE BLUSH RAMBLER.

THIS charming Rose is one of the best for clothing pillars and pergolas, its large clusters of nearly single, blush-coloured flowers creating a beautiful picture in early July. It is a Rose like most others of a rambling nature that respond to deep cultivation and a soil well enriched with farmyard manure. It belongs to the multiflora section, a section the members of which, unfortunately, do not flower much in autumn. The illustration represents this Rose growing on arches in the nursery of Messrs. Mawson Brothers, Windermere, and its vigour and floriferousness are well shown. We are indebted to Messrs. Mawson for the photograph from which the illustration has been prepared.



ROSE BLUSH RAMBLER IN A WINDERMERE NURSERY.

THE RISE OF THE WICHURAIANA ROSES.

THE development of this Rose and its hybrids has been somewhat rapid, and is of some interest. It was, I think, in the eighties that the type came into cultivation in the nurseries. The National Rose Society's catalogue does not give the date of its introduction, and I cannot quite recollect the year when it first bloomed at Cheshunt; but I remember its flowering on a quarter where a few botanical Roses had stood over for the second year, and being struck with the long, creeping branches with which it carpeted the ground. It lingered, and does not even seem to have been catalogued until the year 1897, when it appeared accompanied by the first hybrids — Manda's Triumph, Pink Roamer, South Orange Perfection and Universal Favourite. These were raised in the United States of America by a young foreigner (Mr. Manda), who had worked for a short time in the nurseries here, and who subsequently made a name for himself in the States. These varieties first drew attention to the value of these Roses, and soon they became favourites as climbers; but no one then thought that the class would render such important service to Rose-growing as they have done in their use for tall, weeping standards as well as for climbers.

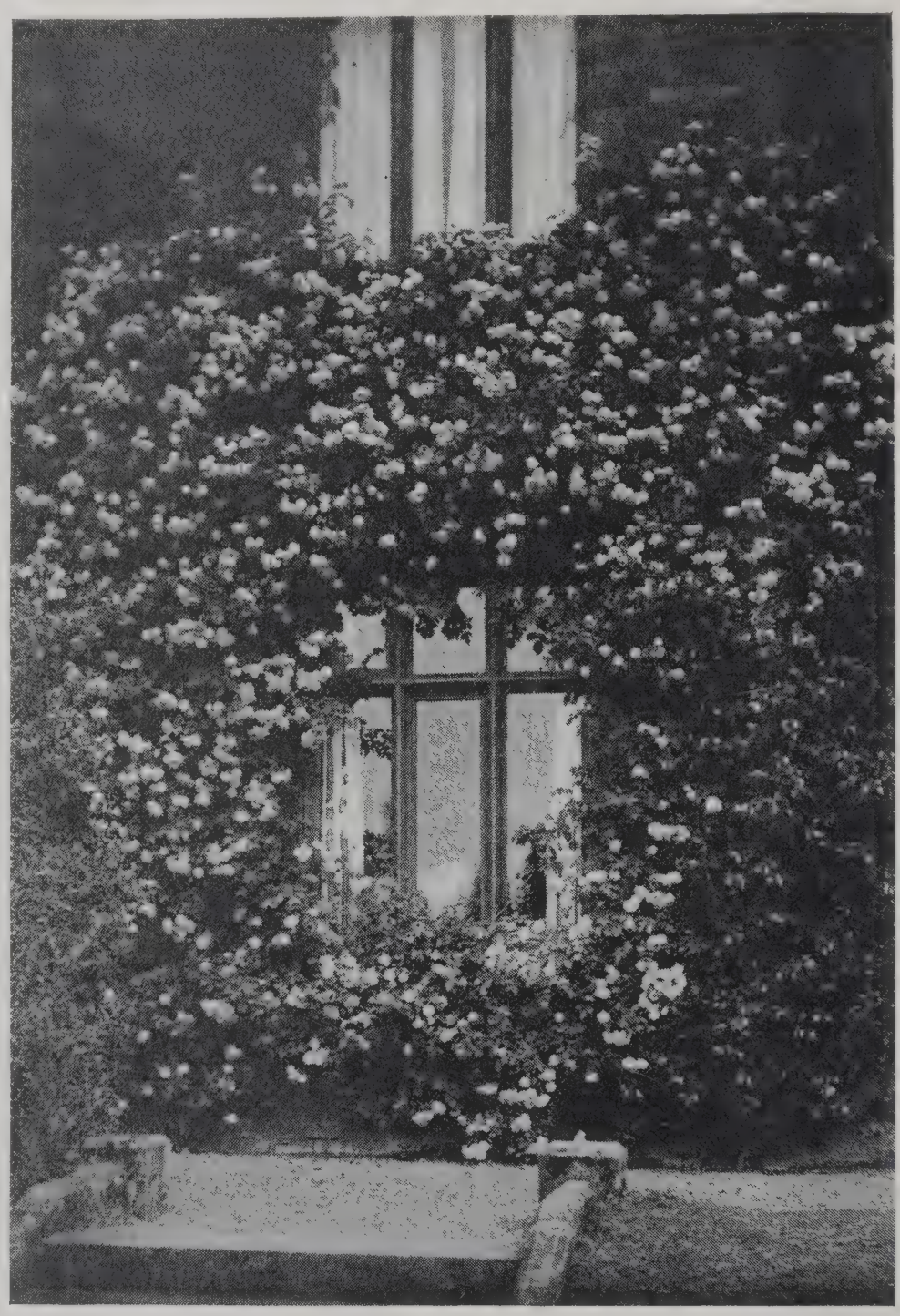
The four varieties I have mentioned have, I think, disappeared; but the next set, also from the same raiser, appeared in the catalogue for 1899, and most of these are now with us, viz., Jersey Beauty, Evergreen Gem and Gardenia, crosses between wichuraiana and the Teas. The Teas, Perle des Jardins and Mme. Hoste are still among the best up-to-date varieties.

In 1900 we received from M.M. Barbier some further additions in Alberic Barbier, Réné André and rubra. Réné André was a cross with Noisette L'Ideal, and rubra with Crimson Rambler The next two years brought us Auguste Barbier, Ernest Granprère and François Foucard, introducing the first lemon or creamy white varieties. From then onwards the wichuraiana Roses took a whole page in the catalogue, and each year five or six new ones were added. Dorothy Perkins first appeared in 1901, and reached us from America. It gave quite a new spurt to the class, and has been, by its sportive character, of the greatest use in this section, because one can get the three varieties, this and its close companion Lady Gay, White Dorothy, and our Lady Godiva (a blush pink) blooming absolutely at the same moment.

About the year 1904, some varieties with rather larger flowers reached us from France and America, such as Alex. Trimouillet, Robert Craig and W. F. Dreer; but they did not "catch on," the public preferring the large clusters of small double flowers. Paul Transon (1902), however, remained deservedly a great favourite. We seem at this time to have begun selecting or sorting out the best ,and a good many of the first introductions disappeared. Lady Gay is described in 1905 for the first time as having rather larger flowers than Dorothy Perkins, though similar in colour; they have now become almost identical. We owe this grand American variety to Mr. W. H. Walsh, who also gave us Hiawatha in 1905—certainly a hybrid wichuraiana, though the National Rose Society classes it otherwise; and in 1905, one of the best, Minnehaha, with its large clusters. François Juranville (a new colour) and Leontine Gervais came to us from Barbier in 1906. There are two, Ruby Queen and Gerbe Rose, which from their foliage seem to infer some other origin than this species.

The last two years have brought a great improvement in the yellows of this series. Shower of Gold maintains its colour long, not soon blanching; and other kinds of yellows are following, both here and on the Continent. Elise Robichon and Joseph Liger are good. In whites we have few beyond the already quoted White Dorothy, but François Guillot and Schneeball are good. In brighter re than Dorothy, Excelsior is the best.

The bright glossy leaves are among the meri of these Roses; their almost mildew-fr nature is most important. For making walls Roses, supported simply by wires stretched betwe posts, as pillars and for arches they are mo valuable. I have used them for clothing bank for drooping over sustaining walls, and, finall they make the best, because the most droopin weeping Roses. Their culture is simple; gi them a good start and they keep growin Prune out annually the three year old woo and tie in the long new shoots the year. GEORGE PAUL, V.M.H *Cheshunt.*



ROSE FELICITE PERPETUE AROUND THE REV. J. JACOB'S STUDY WINDOW.

ROSE FELICITE PERPETUE.

I MUST begin with a confe sion. I am sorry to s that all I know abo Roses is that I like so very much indeed, a some just a little less. in writing a note even about n own Rose tree, I feel very mu as I did when, owing to my judge being suddenly summon away, I was left alone in my glo with all the Daffodil classes do and only Roses before me.

The window in the illustrati is my study window, and the Ro all round it is one that I boug from a curious old gardener Joseph Wynne—when I first ca to the house about the year 188 He told me it was called "T Seven Sisters" and that it was strong grower, and when on established bore every July profusion of bloom. I planted in just ordinary soil, where it no stands, and away it went, and f years it has given me a gra display. Beyond carefully naili some of the growths to the wa and every October cutting out t branches and shoots that we not want to keep, with a litt shortening of others here a there, we do nothing. There a three altogether on the house one facing south, another (that the illustration) facing west, a the third due north. There is decided difference in growth a bloom between this last and t other two. It bears but fe flowers and it has a much slender look altogether, but its leaves are good, very da and very shiny, and I think a good deal mo persistent in winter.

I am told that the proper "stud book" name this grand variety is Félicité Perpétue, that it one of the sempervirens, or Evergreen, section, a that it was raised at the Château de Neuilly abo 1828, when France was *par excellence* the land Roses, or at least of new varieties, and whe England was without her Rivers and her Pau and her Cants. The flowers are flesh-coloure changing with age to white, full, semi-double, medium size, borne in conspicuous trusses a

slightly fragrant. Its robust nature and the persistency of its foliage make it a desirable variety to introduce to gardens and positions where a plant would have to "paddle its own canoe." JOSEPH JACOB.

THE FLOWER GARDEN.

SWEET PEA NOTES.

NOTES ON VARIETIES.—I have often pondered the question as to what the gardening world really owes to my county. All seed merchants have to come to our fertile lands either to grow seeds for themselves or to purchase from others who have grown for them, and it is generally acknowledged in special reference to Sweet Peas that Essex seeds are second to none and superior to most. Yes; the Sweet Pea world owes a great debt to Essex, and I myself bask in my county's splendid glory.

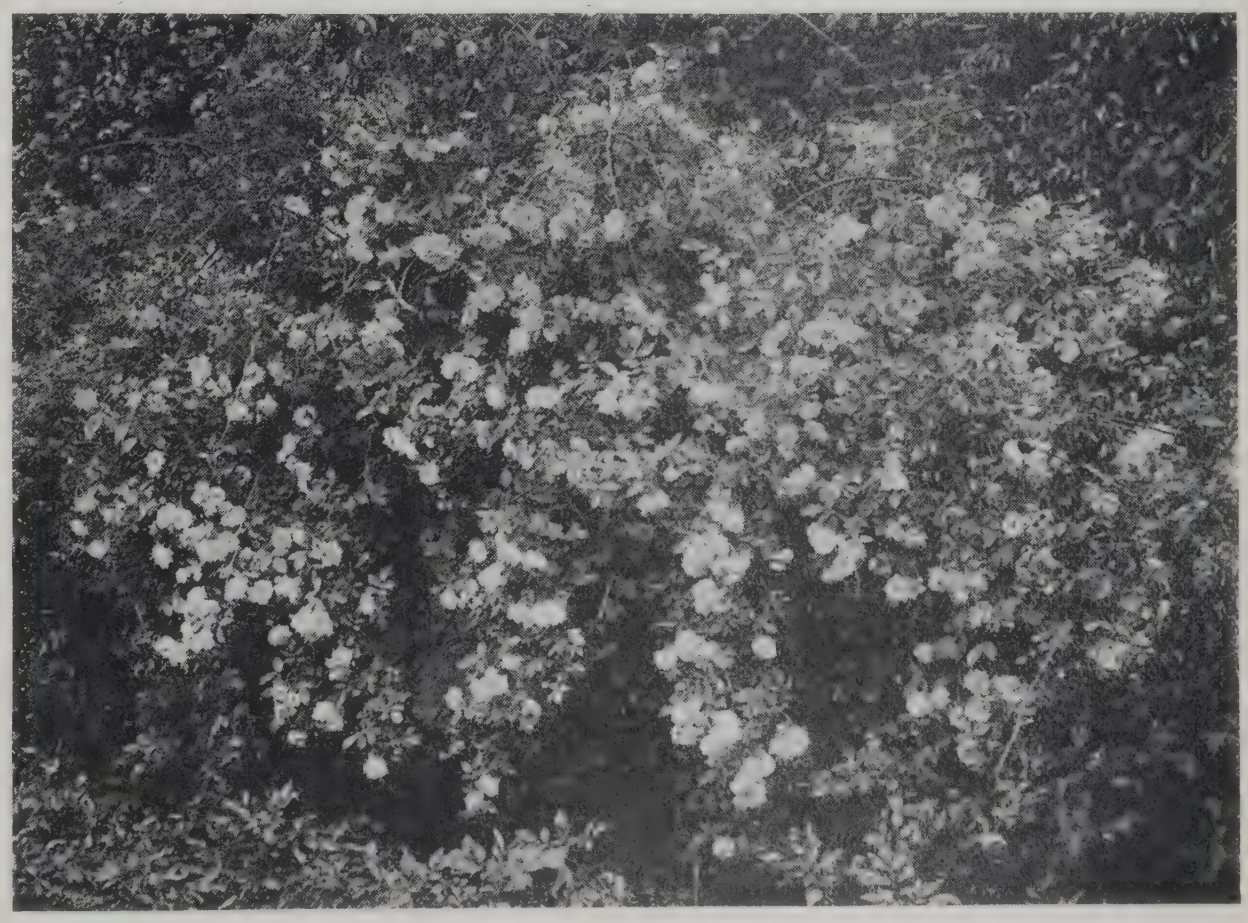
A few years ago Dobbie's were by way of being seed-growers in Kent—the Garden of England of poetical scribes—but they had to come to Essex to make the name of their firm famous throughout the civilised globe, and as far as I know it may be famous in uncivilised parts too. Since those not long distant days Dobbie's have become seed-growers of the first repute, and with Sweet Peas they have achieved a most enviable reputation. The seeds which Mr. Ireland grows, ripens and harvests so magnificently germinate to the last one, and it really seems as though the genial Andrew possesses an occult power of imparting some of his own vigour into the Dobbie seedlings, for these always forge ahead with a strength that is as surprising as it is pleasing to the delighted grower.

Beyond dispute we of the Sweet Pea cult owe much to Essex, and so also do Dobbie's. Not at the production of seed do they finish. In the intervals between such arduous and interesting toil attention is turned to the development of new and improved varieties; and while agreeing that these things demand the intelligence of the individual, I see no reason why I should not claim for Essex, its climate and its soil, a measure of participation in the handsome results that have been secured. Dobbie's novelties have come with singular regularity, and have not been in any sense of the "flash in the pan" order. It is hoped that they will continue to proceed from strength to strength, because we cannot afford to do without the good things they have to give us.

Brief reference has already been made to some of this firm's novelties under consideration of those that received special awards from the floral committee, but it will make our present notes more complete if they are again alluded to by name only. They are Mauve Queen, May Campbell and Red Star, each of which was honoured with an award of merit; while Improved Thomas Stevenson received the first-class certificate, and is held as the reserve variety for the silver medal next year if it maintains its present promise.

Others which have been shown and will doubtless now be on the market are Dobbie's Cream, which is of good size and form, but scarcely required in the same dozen or twenty-four as Clara Curtis. Lady Knox is a beauty in the character of Paradise Ivory, but it has richer colour, and for that reason alone will probably become the more popular of the two. In form and substance it leaves nothing to be desired. An exquisite shade of salmon or orange salmon is seen in Melba, which seems to me to stand quite alone, and it is safe to predict for it a decided measure of appreciation, for it is a colour that will appeal with considerable force to the ladies. Bicolor varieties have not up to now shared the immense vogue of the selfs or those that approach to that group, and it is not likely that they ever will do so. At the same time, they undoubtedly have their uses, and one cannot conceive a collection having any aspirations towards completeness from which they are omitted. Recognising their claim to culture, then I should like to put in a good word for Mrs. Cuthbertson, which has a lively standard and white wings; the flowers are of good size and gracefully carried on the stems.

There will never come an end of the lavender varieties, and it becomes increasingly difficult every season to know which to include and which to exclude from the orders. Mrs. Heslington belongs to the group of lavenders having a suffusion of mauve and, as it has been exhibited by Dobbie's during the past summer, is a real beauty that will have scores of admirers. A. B. ESSEX.



ROSE CLAIRE JACQUIER IN THE REV. J. H. PEMBERTON'S GARDEN. (*See page* 494.)

THE BEST GARDEN ROSES.

IN strictness, all Roses are garden Roses that are not wild Roses; but I have no intention of pursuing so large a subject, and propose to confine myself to perpetual flowering Roses of the type mentioned in the National Rose Society's catalogue as twenty-four Roses for general garden cultivation. This excludes climbing and pillar Roses, also the Chinas, rugosas and Polyanthas, which last, useful as they are, I am not sure that I really look upon as Roses at all.

Roses of the class I intend to deal with may be considered as useful for beds, for borders, and for growing as standards and specimen bushes. It will be convenient to divide the bedding Roses into those of dwarf or moderate height and those of rather taller habit, though there will be Roses of an intermediate habit which might be placed in either group.

Freedom of flowering is a most important consideration in selecting bedding Roses. The ideal bedding Rose should flower as freely and give as little trouble as a Geranium. I think perhaps Richmond, a red Rose, most nearly approaches the ideal in this respect. From the time it begins to flower until cut off by the frosts, the groups of Richmond in my garden give a continuous display of buds or blooms, so much so that to get fairly good flowers a small amount of disbudding is desirable. During the torrid heat of this summer and the wet of 1910 it was in flower all the time, though last year many flowers were spoilt by the rain, and this year the sun took all the colour out of them. Scarcely less free-flowering with me is the dwarf little Rose Dr. J. Campbell Hall. The flowers are light rose pink and, like Richmond, are well shaped. Some of my friends, however, are not quite so pleased with this little Rose as I am, as they find it subject to mildew. Some liability to this trouble must be admitted, but with me it has never proved very serious. Another dwarf bedding Rose is Mme. Jules Grolez. The colour is a shade of bright rose which does not harmonise well with other pink Roses, and it is not quite so free-flowering as the first two mentioned. It is a good Rose, but as an alternative I might suggest Frau Ernst Borsig, which, perhaps, has a rather larger proportion of well-formed flowers, but is otherwise very like Mme. Jules Grolez. For a white I can think of nothing better than Mme. Pernet-Ducher. This Rose is a dwarfer and whiter Gustave Regis, and, like that variety, rather thin, but makes a beautiful decorative Rose.

For a yellow I would take Mme. Ravary. Its only fault is that the flowers come rather light

coloured in a cold autumn. Intermediate between the two classes are Ecarlate, an excellent bedding Rose, always in flower. It is very near the Chinas in character, and the blooms are nearly scarlet, semi-double, but not very well shaped. Here, too, I might place two of the newer Roses. One is Molly Sharman Crawford, a Tea Rose, white, with a scarcely perceptible tinge of lemon. It is constantly in flower and holds itself well. The other is Duchess of Wellington, a grand orange yellow colour, fairly free and of good habit. Joseph Hill, a sturdy Rose with fine foliage, the flowers salmon pink on a yellow ground, will also find a place here; so will Mme. Antoine Mari, a beautiful Tea, with pink buds and creamy white flowers, edged pink. Coming, then, to the taller bedding Roses carrying their flowers about 3 feet high, one of the best is Mrs. E. G. Hill, a Rose of the pink bicolor type that has grown so popular lately. The flowers are rosy white, with a coral pink reverse to the petals. Carried on long stems and being rather thin, they open well in wet or fine weather. Another almost as good is Mme. Leon Pain, blush white, with the centre pink, tinged fawn and orange, a Rose that gives an unusually large proportion of well-shaped flowers and carries good foliage. Here we may place Mme. Lambard (a Tea, coral pink in colour), Pharisaer (flesh, tinged salmon) and Lady Ashtown. All of these are upright-growing Roses, while Caroline Testout, which must not be omitted, is more branching in habit. That wonderfully popular Rose Mme. Abel Chatenay will also come here. Its faults as a bedder are that its foliage is rather sparse and that it is not always easy to grow well; still, it is very free, and its beautiful flowers are well carried on long stems.

In the case of Roses grown in borders, we need not, I think, be quite so critical as to the habit of growth of the varieties we select, though we may perhaps be more rigorous in requiring the flowers to be of good form. Thus, Frau Karl Druschki may be admitted to groups in the borders, though it is impossible in a bed because it only looks well in its summer flowering; in the autumn it throws up long stems like a typical Hybrid Perpetual, which hide the flowers and look straggling and untidy. Similar remarks apply to Hugh Dickson. I would also grow Gustav Grunerwald in the border rather than in a bed, on account of its tendency to hang its head slightly but not badly. It is a beautiful pink Rose, with a suspicion of yellow at the base of the petals. Betty also is better in the border than the bed, as its early summer flowering is unsatisfactory. Mme. Melanie Soupert, too, I prefer in the border, for it has not proved with me quite continuously enough in flower to make a first-class bedder. It has beautiful shell-like petals, fawn and old gold, with a delicate shading of peach. I may say the same of the red Rose General Macarthur. Here, too, I would place Mrs. R. G. Sharman Crawford (clear pink), Suzanne Marie Rodocanachi (carmine pink) and Commandant Felix Faure (crimson).

The selection of suitable varieties for standards is of considerable importance. A standard that will not form a good head is of little use. The following have proved satisfactory with me: Antoine Rivoire, Caroline Testout, Frau Karl Druschki, Grüss an Teplitz, Joseph Hill, Lady Ashtown, Mme. Melanie Soupert, Mme. Leon Pain, Mme. Ravary and Suzanne Marie Rodocanachi; and in other gardens I have seen good standards of Hugh Dickson. Among the Teas, three of the most satisfactory are Lady Roberts, Mme. Hoste and Molly Sharman Crawford. For growing as specimen bushes, the number of satisfactory Roses is not large. I will only take four—Gustave Regis (yellow), Grüss an Teplitz (scarlet crimson), Caroline Testout and Zepherin Drouhin (pink).

WHITE ROSE.



FLOWERS OF ROSE ARTHUR R. GOODWIN GATHERED IN NOTTINGHAMSHIRE IN MID-SEPTEMBER. (*See page* 502.)

THE TOWN GARDEN.

LIFTING BEDDING PLANTS.—Usually when the time comes for lifting the ordinary bedding plants, and particularly those of the Ivy-leaved and Zonal Pelargonium classes, it will be found that a number of surplus plants exist which it is not possible to winter separately in pots. For such as these a simpler plan would be to divest the plants of some of their coarser leaf-growth, and, placing a thin layer of soil in a box, plant several therein, allowing a little space between them. Where this cannot be done, cuttings may still be taken. The cuttings at this time, however, will be of a much grosser nature than they were a few weeks ago, more particularly those of the Zonal and bedding Pelargoniums; hence more care will be required to obviate damping. Always of a more or less soft or succulent nature, and not at any time during the cutting stage requiring large supplies of moisture, this is far less needful now when shortening days and more fleshy shoots prevail.

WHAT TO DO IN THE CIRCUMSTANCES is to take some of the less big or vigorous cuttings of, say, not less than 6 inches, and better if 8 inches in length, and strew them thinly on the stage of the greenhouse for a day, or perhaps two, to dry up somewhat. In conjunction with this it is always well to employ soil of a comparatively dry character, and, studiously avoiding the giving of any water for some days and affording the cuttings a position in full light near the glass the amateur will be doing his best to secure a "good strike," as the gardeners say. The frequent wholesale decay in autumn and winter of the cuttings indicated above is largely—very largely—due to the use of fat cuttings, to the use of over moist soil, and to affording water for which there is not the slightest need. In sandy soil in pots or boxes the cuttings will be safe in a temperature of about 45°.

GLADIOLI.—Whether frosts of any severity or not have by this time arrived, the plants of these will have sufficiently matured for lifting, and the work need no longer be delayed. Lift them without more ado, and take them to any well-aired shed or cool greenhouse where they will be safe. In the case of good varieties, if it is desired to preserve the "spawn" or "cloves"—the miniature corms or bulblets that encompass the base of the plants—the lifting should be done with care, so that the "spawn" be retained. Where a few choice and expensive sorts are grown to name, the simpler way will be to take flower-pots to the bed and place the bulbs therein on the spot. The "spawn," so-called, of these plants represents a natural method of increase, which, if more frequently regarded at its fullest worth, might result in stocks of dozens or scores where only solitary examples are found.

CALCEOLARIAS.—The recent cooler weather, attended by welcome rain, has caused a fresh relay of cuttings to appear on these plants, which promised, in some instances at least, to be somewhat scarce. This fresh, if belated, growth will suit admirably for cuttings, which should be got in at once. The bedding Calceolaria detests artificial heat at all times, and for purposes of propagation at this season a cold frame in a partially-shaded place should be selected. If an entire frame-light cannot be devoted to the cuttings, arrange them in boxes 6 inches deep and cover with glass. For such things a square hand-light is very serviceable.

S. N. N.

GARDENING FOR BEGINNERS.

RAISING ROSES FROM CUTTINGS.

ROSES can be propagated with comparative ease by cuttings. The preparation of the cuttings does not require very careful manipulation, and once they are inserted in the prepared quarters, very close attention is quite unnecessary. A few sorts that the merest novice may take in hand with the sure prospect of success are the following: Crimson Rambler, Dorothy Perkins, Hiawatha, Grüss an Teplitz, Ulrich Brunner, Mrs. John Laing, Caroline Testout, Frau Karl Druschki, La France, Viscountess Folkestone, William Allen Richardson, Prince Camille de Rohan, Irish Elegance and others of similar character. Readers will readily understand from the above list of sorts the kind of Rose they can make a beginning with. Of course, those who are so disposed may propagate any Rose of which they obtain cuttings; but the more cautious beginner will probably deal with the robuster kinds during the experimental period.



1.—ROSE CUTTINGS PREPARED FOR INSERTION.

An excellent position for a cutting-bed is under a north wall or fence. These quarters should be carefully prepared by deeply digging and thoroughly breaking up and working the soil, putting in a heavy dressing of sharp sand or clean road grit. The surface soil should be left in a rough condition for a time for the quarters to become aerated and sweetened, and when the soil has become dry it should be broken up with a garden fork, then levelled and, finally, trodden down firmly all over. Those who have a spare cold frame may utilise this advantageously for raising Roses from cuttings; and if a mild bottom-heat can be afforded, such as spent Hops or half-rotted manure provide, a layer of sufficient depth of gritty soil should be spread over the heating material, in which the cuttings should be embedded. The soil must be maintained in a fairly moist condition, or the cuttings will not succeed. They must not be maintained in too moist a condition, however, and air must be admitted for a quarter of an hour at least once a day. The cuttings should be sprayed with clear water two or three times daily in warm weather, and less frequently as the colder weather is experienced. Shade the cuttings from the sun during the rooting process. Subsequently, after rooting, the cuttings may be potted up, afterwards plunging the pots to the rims in ashes either in the cold frames or in a warm and sheltered quarter outdoors. It is to the prepared quarter outdoors that the writer desires to call more especial attention. Assuming these quarters are prepared in the manner suggested earlier in these notes, the insertion of the cuttings may proceed apace. They may be dibbled in individually, or a small trench may be cut and the prepared cuttings adjusted therein. The latter system is much to be preferred. A line should be strained across the quarters, and a spade should then be inserted and thrust straight down alongside of the line, taking out a trench some 5 inches or 6 inches in depth. The trench should be very evenly cut, as this will ensure a better adjustment of the cuttings in position when the soil is filled in. Into the bottom of the trench place a small layer of coarse sand, on which the bases of the cuttings are to rest. In Fig. 1 there are depicted three examples of growths suitable for cuttings, and on the lower half of the photograph three similar growths properly prepared. The best cuttings are obtained from growths that have not borne flowers, and these should be nicely ripened. Soft, unripened shoots are of little value for this purpose. The cuttings, which should be inserted in October, must not be shoots in active growth, and may vary from 8 inches to 12 inches, more or less, in length. If they can be detached from the plant with a "heel," so much the better. The second pair of cuttings in the photograph show the "heel" fairly clearly. Ordinary cuttings are made by severing the stem, straight across, immediately below a joint. The top end of the cutting should be cut back, leaving three or four leaves as portrayed in Fig. 1. The last series of cuttings, on the right of Fig. 1, represent the ramblers as distinct from other types of the Rose. These prepared cuttings are adjusted in position in the trench, 6 inches apart, as shown in Fig. 2, and the trenches should be about 15 inches asunder. Fill in the soil, treading this in and making it quite firm, finishing off neatly with a layer of loose soil. Here they may be left undisturbed until the following autumn, when they should be lifted and planted.

D. B. CRANE.

WINDOW-BOXES IN WINTER.

NEARLY all kinds of bulbous and many small spring-flowering plants can be grown in window-boxes. Where border space is scarce, the utmost possible use should be made of such boxes, as they are so beautiful in springtime and enhance the general good appearance of the dwelling-house. The space for soil is, of course, limited, and, like plants in pots, those in boxes require the best obtainable. The most suitable is that which has been used for a few months only in pots for various kinds of greenhouse plants, or turfy loam cut and stacked for about five months. With the loam mix a small quantity of rotted manure and some sweet leaf-soil for all kinds of plants except bulbous ones. For the latter, place the manure portion of the compost in the bottom of the box, so that the roots of the growing bulbs will come into contact with it in due course.

Bulbs may be grown in boxes with Myosotis, Aubrietias, Silene compacta and other dwarf-growing plants; but Wallflowers look best and do best in a box by themselves. Tulips and double or single flowered Arabis look charming; also Snowdrops, Crocuses and Scilla sibirica. The largest bulbs, such as Hyacinths and Narcissi, must be put in the deepest, and the small ones, such as those of Snowdrops and Scillas, with not more than 1 inch of soil on them.

It is a mistake to put in too many bulbs or plants, as, if overcrowded, one plant spoils the effect of another.

B.



2.—CUTTINGS INSERTED IN A TRENCH IN THE OPEN.

ROSES IN IRELAND IN 1911.

THE summer which has just passed will long be remembered in the "cold black North" as the most glorious summer for Roses on record. The naturally humid climate of Ireland has for once changed its character and given us a sample of the blue skies and brilliant sunshine of a warmer land. The effect on Roses in Ireland has been remarkable. The earliness of the flowering season (we were cutting splendid exhibition blooms in the middle of June) and the long-continued and abundant supply of fine flowers, uninjured by rain, up till the time of writing have never been equalled in the memory of living rosarians here. That we did not suffer from the long-continued drought to the same degree as our fellow Rose-growers in the South of England is largely owing, I believe, to the heavy night dews, which commence here generally about the second week in July and continue till about the middle of this month. So copious were these dews that it would have been quite possible for one to wash one's hands off the foliage in the early morning during all the hottest weather of the past summer.

If any evidence were required as to the increasing popularity of the Hybrid Teas, the past season would serve to demonstrate their superiority over all other sections by their persistence and freedom of flowering under the most trying circumstances. The old Hybrid Perpetuals have stood the comparison but very poorly, and in many gardens the past season must have rung their death-knell. Both for garden and exhibition they are rapidly being superseded, and I may say, as regards Hybrid Perpetuals as exhibition Roses, that out of the seventy-two distinct varieties which won for me the championship trophy, only five were Hybrid Perpetuals, and of these five, two at least, viz., Hugh Dickson and Frau Karl Druschki, may be said to have as much right to the title of Hybrid Tea as many of the varieties at present included in that section.

In every season some individual varieties stand out pre-eminently and make a distinct mark on the records of the year; and from an exhibitor's point of view the outstanding Roses of the past year in Ireland have been Earl of Warwick, Leslie Holland, Hugh Dickson, Frau Karl Druschki, Gloire de Chedane Guinoisseau, J. B. Clark, Mrs. Theodore Roosevelt, Mrs. Stewart Clark, Mme. Segond Weber, Mrs. David McKee, White Killarney, Yvonne Vacherot, Lyon, Ulrich Brunner and Countess of Shaftesbury; and of the newer Roses, Marquise de Gany, Mrs. Charles E. Allan, Charles de Lapise, Berthe Gaulais, Duchess of Wellington, Miss Cynthia Forde, Margaret, Mrs. Maynard Sinton, Jonckheer J. L. Mock and Souv. de M. Louis Pereire.

Garden Roses have seldom been so magnificent and so satisfactory as they have been in Ireland this year, and the more up-to-date method of planting beds of one variety, which is highly to be recommended, has greatly enhanced the beauty of our Rose gardens. The many new varieties of Hybrid Teas of ideal bedding qualities have forced their way so rapidly into popular favour that we may see large beds of the newest and most up-to-date varieties in almost every garden which has any pretension to be called a Rose garden. Such sorts as Arthur R. Goodwin, Lady Pirrie, General Macarthur, Mrs. Aaron Ward, George C. Waud, Harry Kirk, Ecarlate, H. Armytage Moore, Jacques Vincent, Joseph Hill, Entente Cordiale, Betty, Irish Elegance, Mme. Melanie Soupert, Mrs. Alfred Tate and Theresa, not to mention such well-known and reliable old bedders as Caroline Testout, Mme. Abel Chatenay, Killarney, Lady Ashtown, Simplicity and Gustav Grunerwald, have given us a continuous feast of colour, which is a delight to the grower and a great triumph to the hybridist.

In no department in the Rose garden has the advance made by the hybridist been so marked during the past decade as among the bedding Roses; and now that we are getting the deep crimsons and scarlets of the old Hybrid Perpetuals, the regret frequently expressed by many at the gradual disappearance of this old class, which well served its day and generation, will be lessened by anticipation of something which in the very near future will far supersede them.

No reference to Roses in Ireland would be complete which did not refer to the seedling Roses, which are so extensively grown here, and it is a matter for congratulation that not one amateur only, but several here are seriously at work to improve existing varieties and further the great work of leaving things better than we found them, which is a high ambition. No season for many years has given seedlings such a gruelling test as the past one has done, and I may confidently state that, as the result of last season's trials, there will be during the next few years placed on the market varieties which will be far in advance of any reasonable anticipation of the most optimistic hybridist.

Belfast. Hugh Dickson.

SIX NEW BEDDING ROSES.

In reply to your correspondent who writes asking you to recommend him two pink, one red, one yellow, one white and one salmon bedding Rose of recent introduction, for six beds as an addition to those he already has, I suggest the following: For the two pinks, Miss Cynthia Forde and Mme. Segond Weber; red, General Macarthur; yellow, Lady Hillingdon; white, Mrs. Herbert Stevens; salmon, Lady Pirrie. All the above Roses are quite excellent for his purpose and can be thoroughly recommended.

Miss Cynthia Forde is a beautiful shade of rose pink, very free, of good habit, distinct from all other pinks; generally reminiscent of (except as to colour) that good Rose Antoine Rivoire.

Mme. Segond Weber is more of a salmon shade perhaps, but, still, pink is the general effect. It is a very good bedding Rose, fine-shaped bud, and one of the best Roses that have reached us from the Continent.

General Macarthur.—This is, I think, the best bedding red of the newer Roses, but its colour does not stand the sun, and it is apt to go "magentary." Still, it is very fine in a cool season, and its autumn flowers try to make you forget its failing in the dog-days. A real good bedding red is still to seek. Ecarlate is too small, Hugh Dickson too tall, and at the moment General Macarthur is, I think, the best.

Lady Hillingdon is easily the best yellow. It has been very satisfactory with me, the colour lasting well, and it has been well tested this season, Mme. Ravary going almost cream in comparison. It is rather thin, but the flower keeps its shape well if cut young.

Mrs. Herbert Stevens.—Although a Tea, this is a vigorous grower, and has, I think, given me more flowers per plant than any similar Rose in the garden. It makes a charming button-hole, th bud being of exquisite shape. My plants are fu of flower as I write, and one feels one cannot spea too highly of this variety. It is excellent fo cutting, as the flowers can be cut in sprays wit three or four flowers opening together.

Lady Pirrie I have called salmon, but its colou is varied, and there are copper and other shades t be found among its petals. It is a beautifu decorative Rose, quite distinct, and will be foun in every garden when its qualities are better known

Four of the foregoing six Roses have received th gold medal of the National Rose Society; the othe two would doubtless also have done so if they coul have been staged. None of them can be describe as exhibition Roses; they are garden Roses in th true sense of the word. H. E. Molyneux.

NURSERY NOTES.

MESSRS. H. MERRYWEATHER AND SONS.

THIS firm, whose head-quarters are at the pretty little town of Southwell, some fifteen miles from Nottingham, has for many years been noted for its Roses and fruit trees, and it was our good fortune to travel that way during the sunny days of mid-September, when the trees were aglow with ruddy-cheeked Apples and the Rose quarters a veritable mass of bloom. To give readers some idea of the extent of the firm's business in Roses alone, we may mention that during the past summer over two hundred thousand stocks were budded, which means that practically that quantity of Rose trees and bushes will be disposed of between now and April next.

Grown as they are on open, exposed fields, these Roses have every opportunity of becoming well ripened and robust, points that augur well for their success when transferred to their permanent quarters. Teas, Hybrid Teas, Pernetianas, Chinas, Noisettes, Hybrid Perpetuals, rugosas, wichuraianas, Rose species, and indeed every type of Rose in existence, find a home here, and it would, we think, be exceptionally difficult to send the firm an order that it could not execute. Lack of space will not allow us to enumerate all the specially good varieties that we saw on this occasion, so we must content ourselves by mentioning a few of the newer sorts. A twain that we were much enraptured over were Arthur R. Goodwin and Duchess of Wellington, both good summer and autumn Roses, and both producing in great profusion their charming and fragrant blooms. The first-named belongs to the Pernetiana group, and for garden purposes will, we think, supersede that grand variety Lyon, which does not thrive or flower freely in some localities. Arthur R. Goodwin, however, is an exceptionally free-growing Rose, possessing an ideal branching habit. The flowers, which are not so deep as those of Lyon, are described as coppery orange red, passing to salmon pink as the flowers open. At the time of our visit the plants of this were worth going far to see, and the growth was quite free from mildew. Mr. E. A. Merryweather informed us that he had never seen it attacked by that disease, a statement that has been substantiated by other growers. An illustration of blooms gathered on this occasion appears on page 500. Duchess of Wellington is a Hybrid Tea of rare beauty. The flowers are deep and pointed, and the

half-open buds remind us forcibly of Safrano, the flaking of scarlet on the deep saffron yellow imparting to them an indescribable charm. Like Arthur R. Goodwin, it is a superb Rose for the garden, and should also prove valuable for exhibition purposes.

Rayon d'Or, of which a coloured plate is presented with this issue, was doing splendidly, and the autumn blooms were little, if any, inferior to those of summer. Messrs. Merryweather have a good stock of this superb new Rose. Juliet, too, with its vigorous shoots and handsome leaves, was thoroughly at home. Though the demand for this unique Rose has been heavy, the firm has managed to raise a large stock, and is, therefore, enabled to offer plants at nominal prices. Edward Mawley, Betty, Commander J. Gravereaux (the red Frau Karl Druschki), Viscountess Enfield and Hugh Dickson were a few others among many that called for special mention.

Among the dainty little Dwarf Polyantha Roses, the two novelties Phyllis and Jessie stood out pre-eminent. Both were introduced by Messrs. Merryweather, and both retain their exquisite colours in the brightest sunshine. Phyllis has flowers of pretty carmine pink hue, while those of Jessie are bright cherry crimson. These Roses commence to bloom in June, and are never without flowers until late autumn frosts stop the display. At the time of our visit the plants were so full of flowers that scarcely any of the foliage could be seen. For bedding purposes Phyllis and Jessie are decidedly an improvement on scarlet Pelargoniums.

The fruit department, which is a distinct section from the Roses, is under the direct management of one of the heads of the firm, and everything that is possible is done to ensure good, healthy, sturdy trees, true to name, being grown. For Apple Bramley's Seedling alone fruit-growers owe a deep debt of gratitude to Messrs. Merryweather, who introduced it some years ago. It is undoubtedly the best all-round culinary Apple of the day, and is an ideal variety in every respect. The original trees at the Southwell Nurseries are now about twenty years old, and a quantity of others are five years younger. We can confidently assert that we have never seen trees carrying better crops of fruit, taking them as a whole, than these were. Not only were the branches laden, but practically the whole of the Apples were first grade. Bramley's Seedling Apple is, happily, now becoming well known, and it is a sign of the times that market-growers are planting it very extensively. Messrs. Merryweather have a splendid stock of young trees suitable for all purposes. Crimson Bramley's Seedling is a sport from the original, of which it is a counterpart in every way except that the fruits are coloured deep crimson.

The Merryweather Damson and Southwell Red Currant are two novelties which the firm has introduced more recently. The Damson, of which we gave a coloured plate in our issue dated October 22, 1910, will, when sufficient trees are available, completely supersede the older varieties. The fruits are as large as those of Orleans Plum, but have the true Damson flavour. The trees are vigorous and crop in quite a young state. The Southwell Red Currant is quite new and distinct, the dark stems and foliage enabling one to pick out the bushes at a glance. It flowers late in the spring, and is, therefore, seldom injured by frosts. The fruits, which are produced in very long bunches, are large, bright red and firm, and it should prove a most valuable variety for market purposes. In addition to these novelties, the firm has good and clean stocks of all the leading fruits, cordon Gooseberries being a great speciality. The value of these, and indeed all cordons, for small gardens cannot be over-estimated. They occupy but little space, give heavy crops of first-class fruit, are easily kept free from pests and diseases, and the fruit can be easily gathered.

A third section of this flourishing business is devoted to ornamental trees and shrubs, and we were amazed at the vigour of many of the kinds we saw. The collection of Hollies, for instance, is one of the best in the country, and Rhododendrons of all kinds flourish exceptionally well, all the best varieties being in stock. Ivies, Golden Yews, Clematises, ornamental Vines, Cedars, Pyruses, and indeed practically all kinds of evergreen and deciduous trees are grown on a very large scale. Judging by what we saw at the time of our visit, as well as on previous occasions, we can with confidence recommend the firm to those of our readers requiring any of the plants mentioned.

NATIONAL SWEET PEA SOCIETY.

The following official report has been sent to us by the hon. secretary of the above society, and we have much pleasure in publishing it.

Proceedings of Floral Committee, 1911.

Awards.

First-class certificates to Trial No. 119, Thomas Stevenson, Dobbie's, sent by Messrs. Dobbie and Co., Edinburgh. The silver medal was awarded, provisionally, to this trial. Trial No. 111, Barbara, sent by Mr. Robert Holmes, Tuckswood Farm, Norwich; raised by Mr. H. A. Perkin, Reigate.

Awards of merit to Trial No. 33, F. Seymour Davis, sent by Mr. F. Seymour Davis, Farnham; Trial No. 43, Mauve Queen, sent by Messrs. Dobbie and Co., Edinburgh; Trial No. 138, Red Star, sent by Mr. A. Malcolm, Duns, Berwick; Trial No. 211, May Campbell, sent by Messrs. Dobbie and Co., Edinburgh; and Trial No. 212, Mrs. B. Gilbert, sent by Messrs. Gilbert and Son, Dyke, Bourne.

Recommendations.

The floral committee strongly recommends:

(1) That twenty seeds be sent for each individual trial in 1912, fifteen plants to be set out in a row 12 feet long.

(2) That raisers be notified if less than fifteen germinate, and a request made for more seeds.

(3) That failing seeds, seedlings about 3 inches high be accepted to make up the number of plants.

(4) That on the *first* visit to the trials in 1912, *varieties be selected* for voting upon at the subsequent visit; no voting to take place at the first visit.

(5) That a duplicate set of trials be conducted in 1912, on heavy soil, at least 100 miles north of London; and, in the event of this recommendation being adopted, the floral committee pay one visit only to each set, point each stock, and make its awards on the results thus arrived at. Under these conditions a scale of points would be prepared prior to the first visit, and all stocks obtaining a certain aggregate of points would be voted upon.

(6) That the raiser's description be furnished in the case of varieties which gain awards, and that such description be included in the proceedings of the floral committee.

The general committee of the National Sweet Pea Society approves the foregoing recommendations, and will endeavour to give effect to them.

Classification of Sweet Peas.

The floral committee presents the following as an up-to-date selection of varieties. The varieties in each colour class are placed in order of merit. * Indicates a grandiflora variety; all the others are waved.

Bicolor.—Mrs. Cuthbertson, Arthur Unwin, Mrs. Andrew Ireland and Colleen.

Blue.—Flora Norton Spencer, Mrs. G. Charles and *Lord Nelson.

Blush.—Mrs. Hardcastle Sykes and Princess Victoria.

Carmine.—John Ingman.

Cerise.—Cherry Ripe, Chrissie Unwin and *Coccinea.

Cream, Buff and Ivory.—Clara Curtis, Paradise Ivory and Isobel Malcolm.

Cream Pink (Pale).—Mrs. Routzahn, Mrs. Hugh Dickson and Gladys Burt.

Cream Pink (Deep).—Doris Usher, Mrs. R. Hallam and Constance Oliver.

Crimson.—Sunproof Crimson, Maud Holmes and King Edward Spencer.

Fancy.—Afterglow, Charles Foster and Prince George.

Lavender.—Masterpiece, Asta Ohn and Florence Nightingale.

Lilac or Pale Mauve.—Mauve Queen, Winsome and Mrs. R. H. Carrad.

Magenta.—Menie Christie.

Marbled and Watered.—May Campbell and *Helen Pierce.

Maroon.—Nubian, Tom Bolton and Black Knight Spencer.

Maroon Purple.—Arthur Green and Mrs. J. M. Gerhold.

Maroon Red.—Red Chief.

Mauve.—Queen of Norway, Tennant Spencer, Wenvoe Castle and Helio-Paradise.

Orange Pink.—Edrom Beauty, Helen Grosvenor and Helen Lewis.

Orange Scarlet.—Thomas Stevenson, Dazzler and Edna Unwin.

Picotee Edged (Cream Ground).—Mrs. C. W. Breadmore and Evelyn Hemus.

Picotee Edged (White Ground).—Elsie Herbert, Marchioness of Tweeddale and Mrs. Townsend.

Pink.—Elfrida Pearson, Hercules and Countess Spencer.

Rose.—Rosabelle, Marie Corelli and Marjorie Willis.

Salmon Shades.—Stirling Stent, Barbara, Melba and Earl Spencer.

Scarlet.—Red Star, Scarlet Emperor and George Stark.

Striped and Flaked (Purple and Blue).—Loyalty and Suffragette.

Striped and Flaked (Chocolate on Grey Ground).—W. R. Beaver and Senator Spencer.

Striped and Flaked (Red and Rose).—Mrs. W. J. Unwin, America Spencer and Aurora Spencer.

White.—Etta Dyke, Nora Unwin and *Dorothy Eckford.

Too-much-alike Varieties.

The following varieties have been bracketed as too much alike. "Not more than one of the bracketed varieties shall be shown on the same competitive stand at any exhibition of the National Sweet Pea Society." The names are placed in alphabetical order.

Blue.—Anglian Blue, Flora Norton Spencer, Kathleen McGowan, Shawondasee and Zephyr.

Blush.—Bobby K., Countess of Northbrook, Florence Morse Spencer, Lady Evelyn Eyre, Mrs. Hardcastle Sykes and Princess Victoria.

Blush Spencer, Lady Althorp, Mrs. T. G. Baker, Paradise Regained and Sankey Spencer.

Carmine.—E. J. Castle, George Herbert, John Ingman, Mrs. W. King, Paradise Carmine and Spencer Carmine.

Cream, Buff and Ivory (*Grandiflora*).—Harold, James Grieve, Mrs. Collier, Mrs. A. Malcolm and Yellow Hammer.

Cream, Buff and Ivory (*Waved*).—Clara Curtis, Giant Cream Waved, Mrs. Miller, Paradise Cream, Primrose Paradise, Primrose Spencer, Primrose Waved, Princess Juliana and Waved Cream (Malcolm's).

Paradise Beauty, Paradise Ivory, Queenie, Sea Foam and Lady Knox.

Cream Pink.—A. B. Bantock, Earl of Plymouth, Holdfast Belle, Juliet, Mrs. Alec Ware, Mrs. Henry Bell, Mrs. Hugh Dickson, Mrs. Routzahn, Mrs. S. S. Champion, Queen (Sutton's), Queen Mary, Romani Rauni, Seashell and W. T. Hutchins.

Cream Pink (*Deep*).—Anglian Pink, Doris Usher, Lancashire, Minnie Furnell, Miriam Beaver, Mrs. Gibbs Box, Mrs. R. Hallam and Syeira Lee.

Constance Oliver and Nell Gwynne.

Crimson.—Dodwell F. Browne, G. C. Waud, King Alfonso, King Edward Spencer, Maud Holmes, Northumbrian Crimson, Paradise Crimson, Rosie Gilbert, Sunproof Crimson, Sunproof King Alfonso, The King and The Squire.

Lavender.—Asta Ohn, Frank Unwin, Maori Belle, Masterpiece, Mrs. Chas. Foster, Mrs. E. Noakes and R. F. Felton.

Florence Nightingale, Freda Unwin, Gladys Cole, Lavender George Herbert, Lavender Paradise and Lavender Spencer.

Lilac or Pale Mauve.—Bertha Massey, Mrs. R. H. Carrad and Winsome.

Magenta.—Menie Christie and Mrs. Charles Mander.

Maroon.—Anna Lumley, Black Knight Spencer, Douglas Unwin, Dusky Monarch, Maroon Paradise, May Gerhold, Nubian, Othello Spencer, Prince of Asturias, Silas Cole and Tom Bolton.

Mauve.—Amethyst, Empress, Helio-Paradise, Ida Townsend, Mrs. Walter Wright Spencer, Queen of Norway, Tennant Spencer and The Marquis.

Orange Pink.—Anglian Orange, Helen Grosvenor, Helen Lewis, Maggie Stark and Miss J. Brown.

Orange Scarlet.—Dazzler, Earl of Chester, Edna Unwin, Gordon Ankentell, Prince of Orange, Ruby (Aldersey), St. George and Thos. Stevenson.

Picotee Edged (*Cream Ground*).—Evelyn Hemus and Mrs. C. W. Breadmore.

Picotee Edged (*White Ground*).—Dainty Spencer, Distinction, E. J. Deal, Elsie Herbert, Picotee and Winifred Deal.

Eric Harvey, Marchioness of Tweeddale, Martha Washington and Paradise Apple Blossom.

Pink.—Countess Spencer, Enchantress, Hercules, Overcomer, Paradise, Pink Pearl and Thora.

Marjorie Linzee, Minnie Toogood and Olive Bolton.

Salmon.—Barbara, Charlie Irving, Earl Spencer, Melba, Nancy Perkins and Stirling Stent.

Flossie Jeffrey, Iris and Isabel.

Scarlet.—George Stark, Premier, Queen Alexandra Spencer, Red Star, Scarlet Emperor, Scarlet Empress, Scarlet Monarch and Vermilion Brilliant.

Striped and Flaked (*Chocolate*). — President, Senator Spencer and W. R. Beaver.

Striped and Flaked (*Red and Rose*).—America Spencer, Lizette Lumley, Mrs. Wilcox, Paradise Red Flake, Uncle Sam and Yankee.

Magnificent and Mrs. W. J. Unwin.

Ethel Roosevelt, Gipsy Queen and Mrs. Tigwell.

Rose.—Albert Gilbert, Lady Farren, Marie Corelli, Marjorie Willis and Rosabelle.

White.—Etta Dyke, Freda, Moneymaker, Nora Unwin, Paradise White, Purity, Snowflake, White Spencer and White Waved.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Lily of the Valley bed (*E. B. P.*).—Lift the whole of the plants from the bed during the latter part of October or early November, and, having shaken or washed them free from all soil, divide the plants, separating the crowns into two, or possibly three, sizes. The largest crowns should, when cultivated, approximate at their thickest part to almost the size of a cedar-wood pencil. In your case the overcrowding may have reduced them to nearly half size, and, if you have a large number of these, you will replant nothing smaller. If the soil is much exhausted, obtain fresh from another part of the garden and discard the old. Dig out the soil of the old bed at least 18 inches deep, better if 2 feet deep, and add manure freely in the remaking. The crowns may then be replanted in rows, 3 inches between the crowns and 8 inches between the rows. The Lily of the Valley delights in deep, rich and fairly moist soils with partial shade. Bury the crowns about an inch below the soil when replanting, a "crown" being a single bud growth. You will probably have a great many feeble crowns to spare. Discard them, unless you have a damp or wet spot that is at present unbeautified.

Montbretias (*M. W.*).—There is no specific disease apparent, and the failure is most probably due to collapse owing to the great heat and prolonged drought. We have seen many similar instances this season, though the worst cases were those where the bulbs had remained more or less permanently in the borders, and, owing to the dense character of the groups, failed early through lack of moisture and food supplies generally. In all the circumstances it would be well, we think, to lift the bulbs and rest them in an airy shed for the winter, replanting the best in well-prepared ground in March next, and preferably in a fresh position.

TREES AND SHRUBS.

Planting a Yew hedge (*Enquirer*). — If you can manage to plant your Yew hedge before the middle of October, we should advise you to do so, otherwise we should advise you to wait until early April. If you wish for a specially dense hedge, plant a double row, alternating the plants in the rows as in your diagram. It is not necessary, however, to plant a double row unless for an exceptional case, as a single row usually forms a dense hedge. The distance between the plants must be determined by the size of the bushes you obtain. As a rule, the outsides of each two plants should touch. Be careful to obtain bushes which are well furnished to the base with branches, for if you plant naked bushes you will experience a great difficulty in getting the hedge to fill up at the bottom. For the same reason do not let the hedge increase in height too rapidly.

Wistarias and Hydrangeas (*Staffordshire Knot*).—What with the mulching and liberal watering, it is very probable that your Wistarias have expended their energies more in growth than in the production of blossoms. Still, with the thorough ripening of the wood incidental to such a hot summer, you may possibly find that they will flower well next spring. If not, your better plan will be to take them in hand this way. About midsummer or soon afterwards pinch back all the vigorous shoots on the main or leading stems to within 1 foot of the main stem, in order to check the very strong growth. These shoots will again break into growth from the buds just below where the shoots were stopped, and after these have grown a few inches they may be again stopped. The result will be the formation of flower-spurs at the foot of the shoot just shortened. As soon as the blossoms are over, cut back the second shoots to within five or six eyes of the main stem, and the young growths of these eyes must then be treated in the same way as those of the previous year. Any very weak shoots had better be cut away entirely. It is most probable that the non-flowering of your Hydrangeas is due to want of nourishment, the new growths being consequently too weak to produce blossoms. You speak of the plants being established in tubs for some years, but you do not say if they have been given any stimulants during the growing season. In the case of plants grown under these conditions, liquid manure or some other stimulant is necessary. This should be given about once in ten days. It is also of great importance that they be well exposed to the sun during the latter part of the summer, in order to ensure a thorough ripening of the wood. Any weak and exhausted shoots may be cut out before the season's growth commences.

ROSE GARDEN.

Roses to hang over low wall (*L. T. S.*).—Many of the beautiful Tea, Hybrid Tea, China and Polyantha Roses will do well for your purpose. Of course, in time the Hollies will encroach on to the Roses, but if you are careful to water and mulch the Roses, they should enable you to obtain your object. Some good Teas would be Mme. Antoine Mari, Mme. C. P. Strassheim, G. Nabonnand, *Homère, *Marie van Houtte, Mme. Falcot, Lady Roberts, *W. R. Smith and White Cochet. Hybrid Teas—Lyon Rose, Château de Clos Vougeot, *Grand Duc de Luxembourg, Mrs. A. R. Waddell, *Lady Waterlow and *Lina Schmidt Michel. Single Roses (Perpetual-flowering)—Irish Elegance, Irish Beauty, *Irish Glory, Simplicity and Bardou Job. China Roses—*Comtesse du Cayla, *Laurette Messimy and *White Pet. Polyanthas — Jessie, *Katherina Zeimet, Eugénie Lamesch and Canarienvogel. A very lovely early-flowering species, *Hugonis, would look well. Those for a south-east wall are marked with an asterisk. Plant all of them about 3 feet apart, and slightly peg down for the first year and prune very little. 2. Sweet Briars to form a hedge should be planted, if a single row, 18 inches apart, and if a double row, 9 inches apart, the two rows being about 15 inches apart. 3. Rosa rugosas, being such strong growers, may be planted 2½ feet apart.

Mildew on Roses (*Staffordshire Knot*).—Various remedies for mildew on Roses have been brought forward, and each has its advocate. One that is highly recommended, and which we have found most effectual, is to spray the plants with a solution of sulphide of potassium. The better way to apply the sulphide is to make a solution of hot soapy water, soft soap being the best, and to drop into it some pieces of the sulphide till the water becomes a fairly bright green; then spray the plants thoroughly with this solution. As cold weather approaches, the mildew assumes its winter form, when it appears as dirty brown marks on the stem and leaves. In the autumn all fallen leaves should be gathered up and burned, cutting off any tips of the shoots badly affected and treating them in the same way. When mildew has taken such a hold as it has in your case, spraying, though it may check it, cannot clear it altogether; but next spring and early summer, if occasionally done, it should then keep this pest in check. Prevention in all cases, if possible, is better than a cure. We are rather surprised that your plants are so badly attacked with mildew, for, generally speaking, it has been less troublesome this year than for several seasons past

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

TREES AND SHRUBS NOT WORTH GROWING.

So far as decorative gardening is concerned, a great many trees and shrubs might be included under this heading; but many of them are of interest in other directions, therefore they may hardly be included among those kinds which the writer has in mind.

The varieties of trees and shrubs which call for the most severe criticism are those which can only be said to be distinct from their respective types by reason of slight leaf variegation or deformity of leaves or branches. In some cases, I am well aware, very beautiful effects can be called into existence by the suitable placing and arrangement of coloured-foliaged or variegated-leaved trees or shrubs. Thus, the Copper and Purple Beeches, Purple Nut, Golden Catalpa, the best of the variegated Hollies, Cornus Spaëthii and other plants of a similar character may well be included in gardens, and all are very beautiful; but there are other instances of shrubs and small trees which have badly-defined variegation and present a more or less diseased appearance. These rarely look healthy, and ought never to have been brought into commerce. The same remarks apply to some varieties of trees which are recognised by their deformed leaves, while deformity of habit offers many objectionable features, though in other cases abnormal growth may be looked at in the light of an advantage. This is so in the cases of the best of the pendulous-habited trees and those which are recognised by a fastigiate habit.

Glancing at some of the poorer variegated-leaved trees, we find several Plums which are of a rubbishy character. With the exception of the variety atropurpurea, otherwise Prunus Pissardi, none of the variegated forms of the Myrobalan or Cherry Plum (P. cerasifera) is of any value. Variegated forms of Prunus communis, again, should be avoided, for there is nothing ornamental about them. P. acida flore pleno foliis variegatis is another worthless tree, and the same may be said of P. Mahaleb variegata and P. Padus aucubæfolia and aurea. Pyrus Malus variegata is another poor tree, while P. Aucuparia pendula variegata is ugly. Acer platanoides heterophyllum variegatum is distinctly inferior to the type, while several of the variegated forms of Acer Pseudo-platanus have little to commend them. Æsculus Hippocastanum foliis aureis variegatis is unsightly when compared with the type, while neither Laburnum vulgare foliis aureis, Robinia Pseudacacia variegata, nor Sophora japonica variegata is to be recommended. The Kentucky Coffee Tree (Gymnocladus canadensis) is a decorative subject with its immense green leaves, but in the variety foliis variegatis, where the leaves are speckled with white, much of the beauty of the foliage is lost.

Variegated Oaks, as a rule, are less ornamental than their respective types, while nothing can be said in favour of variegated-leaved Sweet Chestnuts and Hornbeams. Purple and Copper leaved Beeches are decidedly ornamental, but the same cannot be said of the silver-variegated Beech. Variegated Pines may, as a whole, be cast on one side, for they have no pretensions to beauty except when the golden-leaved ones are small and have been grown specially for sale. Among the Cupressuses glaucous and gold foliaged ones are permissible, but those kinds where gold and silver variegation occurs in blotches are not to be encouraged. Golden Yews are attractive, but the silver variegated Yew may be left alone. Glaucous Cedars are usually beautiful, but the gold-leaved kinds do not always fulfil expectations.

Shrubs like variegated Laurels are worthless, while several kinds of Cornus are distinctly inferior to such sorts as Spaëthii, sibirica variegata and Mas variegata. These three kinds are all worth growing where coloured-foliaged shrubs are encouraged; but such sorts as alba Gouchaulti, alba Froebelii, candidissima variegata and sanguinea variegata are not likely to give satisfaction to planters. Viburnum dentatum variegatum, V. Lantana foliis aureis variegatis, V. L. foliis punctatis and V. Tinus variegatum are all worthless variegated-leaved shrubs, while any Rhododendron which is credited with variegated foliage should be looked on with disfavour. Some time ago efforts were made to popularise a variegated form of the common Broom; it, however, never made much progress, and no wonder, for its leaves looked as if they were badly attacked by red spider. There are several variegated forms of Ligustrum lucidum. None, however, has anything to commend it; and the same thing may be said of the variegated-leaved forms of L. sinense

and L. vulgare. Forsythia viridissima boasts a silver variegated variety; it is distinctly inferior to the type. Occasionally one meets with a variegated form of Syringa Emodii looking quite showy as a small plant. After a while its bright colour disappears, and mature plants have nothing to commend them.

Of those varieties with deformed leaves which have been given distinctive names, the following may be given as illustrations of the kinds which ought not to be grown: Fagus sylvatica quercoides, F. s. conglomerata, Castanea sativa monstrosa Quercus pedunculata scolopendrifolia, Alnus glutinosa quercifolia, Fraxinus Excelsior scolopendrifolia, F. E. monstrosa, and Prunus Laurocerasus camelliæfolia. Ugly trees with contorted branches are Fagus sylvatica remillyensis, F. s. tortuosa, Picea excelsa vars. inverta, monstrosa and pendula, and Ulmus campestris tortuosa. W. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 23.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall.

October 24.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square. Lecture at three o'clock by the Rev. Professor G. Henslow, M.A., V.M.H., on "The Origin and Structure of Flowering Plants of Dry Situations."

October 25.—Hereford Fruit and Chrysanthemum Show (two days); Croydon Chrysanthemum Show (two days); Irish Gardeners' Association and Benevolent Society's Meeting.

The Sycamore in bloom.—A novel spectacle may be seen on Ham Common, where all the four seasons may be said to exist side by side. During the past summer many acres of the common were destroyed by fire, and an avenue of Sycamores running through the centre of it was much damaged where the trees were in line with the hot current of air from the burning Gorse. Some of the trees were completely defoliated, and others lost one-half of their leaves. Most of the trees have made a second growth and are in full leaf and bloom, representing spring and early summer. Where one side of the trees retained the foliage, this is now in its autumn garb; but some of the trees, more injured than the rest, are more or less leafless and carry the dead summer fruits.

Roses and oysters at Colchester.—Through the courtesy of the Mayor, Alderman Frank Cant, head of the well-known firm of Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, horticulture was well represented at the Oyster Feast held in that ancient borough on the 12th inst. This feast is an annual ceremony of great importance, and it was a kind and greatly-appreciated thought that led Mr. Cant to invite his horticultural friends. In all about five hundred guests, among them being the Lord Mayor of London, the Hon. Mr. Justice Darling (who is a native of Colchester) and the noted scientist, Sir William Ramsay, partook of the famous Colchester oysters, which were known and appreciated by the Romans. The horticultural representatives included many members of the council of the National Rose Society. Among those present who are specially interested in horticulture were Sir Jeremiah Colman, Bart., Sir Albert Kaye Rollit, the Rev. J. H. Pemberton (president of the National Rose Society), the Rev. F. Page-Roberts (who was president last year), the Rev. G. E. Jeans, the Rev. J. B. Shackle, Dr. A. H. Williams, and Messrs. Frank Sidney Cant (son of the Mayor), Alderman R. W. Wallace, George Paul, Arthur Turner, H. B. May, E. H. Molyneux, E. Mawley, L. S. Paul, C. C. Williamson, J. Brown, C. E. Shea, W. Taylor, G. Burch, D. Prior, R. F. Felton, the Editors of THE GARDEN and *Gardeners' Magazine*, and the sub-editor of the *Gardeners' Chronicle*. Among the toasts was that of "Horticulture and Science," proposed by L. Worthington Evans, Esq., M.P. for Colchester, and responded to by Sir Jeremiah Colman, Bart., and Sir William Ramsay. The tables were beautifully decorated with Roses cut from the Braiswick Rose Gardens, the decorations being carried out by a number of ladies under the supervision of the Mayoress. The opportunity given to horticulturists to visit this historic borough under such pleasant conditions was very greatly appreciated by all who were present.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Parentage of Rose Dean Hole.—Since writing my short article on Rose sports, which appeared on page 493 of your issue for last week, Mr. Alex. Dickson has informed me that Rose Dean Hole was the result of a cross between two unnamed seedlings.—(Rev.) G. E. JEANS.

Roses and their perfume.—In the Special Rose Number of THE GARDEN for October 14, the leading article treats of "The Progress of the Rose." The progress made within the last decade or two has indeed been wonderful, as it seems but a very short time since I was admiring one of the first plants of Rosa wichuraiana to flower in this country, but not dreaming of the effect it would in so short a time have on the Rose world in general. A point that I much admire in a Rose is the possession of a pleasing fragrance, and it must, I think, be admitted that it has been greatly overlooked within recent years. In the matter of scent, many of the old varieties are unsurpassed, and, indeed, in many cases unapproached, by the newer forms. Some of the old Hybrid Perpetuals that are now to a great extent ignored are delightfully fragrant. What a Rose Frau Karl Druschki would be if it possessed the fragrance of some of those veterans of the Rose world! It is, at least to my mind, an open question whether the prize for the best Rose in a show or in some particular section should be given to one almost devoid of scent, as such a flower, beautiful though it may be, appears to be lacking one of the most important attributes that go to form a perfect Rose.—H. P.

Raising seedling Daffodils.—In reply to the note by Mr. Simkins in your issue for October 14, experience has led me to believe that a lot of time is wasted in pollinating Daffodils in dull and sunless weather, and this is the principal (though probably not the sole) cause of the large percentage of failures of which so many hybridists complain. Nature gives us the cue, for a genial and sunny day brings out the bees and other insects, and the stigma of the plant will, under these conditions, be found, as a rule, in a more receptive condition. But when Mr. Simkins goes on to ask the cause of the infertility of certain varieties, such as Barri conspicuus, Ariadne, &c., I confess he leads me out of my depth, and I have never as yet been able to find anyone who can answer a question of this kind satisfactorily.—F. HERBERT CHAPMAN.

Lagerstromia indica.—I have noted with interest the notes given in "The Editor's Table" about Lagerströmia indica growing outdoors at Worthing. May I be allowed to state that a fine plant is growing outdoors in an Ipswich garden on a wall facing north-west, no protection being given except at severe periods. This plant covers a space about 9 feet by 5 feet, and is just showing flower, there being about thirty finely-developed flower-spikes reaching high above the wall. Naturally, the plant is later in flowering here, being situated on the East Coast, but, nevertheless, it is in good, healthy condition.—A. K. TURNER, *Ipswich.*

The National Rose Society's gold medal awards.—Any protest from such a well-known authority as Mr. Walter Easlea is worthy of consideration, but he will forgive me if I do not altogether agree with him over the variety Sunburst. I was not this year one of the judges of the new seedling Roses at either the summer or the autumn show, and therefore I can speak without prejudice. As a matter of fact, I did, and do, consider that Sunburst (with the possible exception of another Rose that also failed to obtain the gold medal award) was the best new seedling exhibited at the Royal Botanic Gardens, and therefore as to its merits I am so far in accord with Mr. Easlea. But I would not have voted for the gold medal for any Rose grown under glass. The flowers so exhibited should never, in my opinion, be eligible for the gold medal, and I am sure in deciding that they could not award a gold medal to Roses so shown the judges were quite correct in their decision, and for reasons too obvious to need enumeration. I believe Sunburst will prove even finer "out of doors" than it has proved itself to be "indoors," but Mr. Easlea's argument that because it was so finely shown (as it admittedly was) from plants under glass, therefore it would be a superb addition to our gardens, is surely a *non sequitur*. There are many Roses superb under glass, *e.g.*, Catherine Mermet, that are quite useless in our gardens. No alteration of rules or convening of special meetings would have the desired end. Mr. Easlea forgets that the decision of the judges is final. If the Rose must go out in March, it will have to go out without the gold medal award; but I believe it would have received, and would have deserved, the same if it had been shown so as to enable the judges to form an opinion of its merits. It was not so shown, and nothing can be done to alter the facts except to postpone its entry into commerce for six months. Then M. Pernet-Ducher could arrange for Mr. Easlea or any other trade grower to exhibit it at the next year's shows from outdoor plants. The further question as to whether a plant admittedly grafted and grown in a pot, and then transplanted out of doors for a few weeks, is what the committee demand when they ask for a "ground plant" can, I think, have but one answer. All rosarians recognise the grand work the firm of Pernet-Ducher has done, but the award of a gold medal to the firm on the lines of Mr. Easlea's suggestion would indeed be a "small recompense"! I

should like to see the National Rose Society institute a "Roll of Honour," on which could be placed in letters of gold all those Roses that have been proved "worthy," or, as Mr. William Robinson once called them, the "Great Roses," and I have no doubt the name of Pernet-Ducher would be found to occupy a proud position in such a list. It would include many gold medal Roses, but it would also include many Continental and home-grown Roses that have missed that distinction. There is one point in connection with the judging of new seedling Roses that I should like to suggest to the council of the National Rose Society that would, I think, tend to more complete satisfaction with the judges' awards; but this note is already long enough, and it will keep for another issue.—H. E. Molyneux, *Southampton.*

MICHAELMAS DAISIES.

Every gardener some flower praises,
I tell here of Michaelmas Daisies.
First the "teeny-weeny" pet,
With little flowers so closely set
All along its stems together
That it looks like a white Heather.
Near to it a giant grows
With great heads of richest rose,
Lilac ones of every hue,
Others which are *nearly* blue,
While some show a dainty spray
Of a silvery Quaker grey.
From the tiny to the tall
How they cheer us in "the fall"!
For they do not fail, nor fret
If the weather should be wet,
Nor hang down a wretched head
Sadly o'er the garden bed,
Sulky, sodden, drooping, glum,
Like the fine Chrysanthemum;
Neither do we count them lost
Should there come a touch of frost.
No! they bravely bloom right through
As a *hardy* flower should do.
If they need a patron, haply,
Surely he should be—Mark Tapley!

C. M. P. D.

Pavement lifted by Mushrooms.—The reference in "Notes of the Week" for September 30, page 466, to a pavement being lifted by growing Mushrooms reminds me of a case at my father's home, where some very large stone slabs formed a pathway much used by our own people and strangers. The slabs would average 2 feet 6 inches in length, 2 feet 3 inches in width and 5 inches in thickness. One slab was gradually lifted up about three inches on one side above the level of the others, and when levered up it was found that a single Mushroom had so displaced it. Mushrooms, of course, grow quickly, and the stone had been raised by the one specimen in a comparatively short time. There are other instances where the Horse Mushroom (a much larger-growing fungi than the edible one, Agaricus campestris, the variety which grew under the stone slab) has lifted heavy implements around farm buildings. The flesh, when partially dried, is of a very elastic nature, and some fungus found growing on trees, if cut through while fresh and afterwards kept in a dry place, makes an excellent "strop" on which to sharpen razors. If scientists can solve the problem of the lifting power of a single Mushroom, light would be thrown on a very interesting matter.—B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

The Stove.—It is most desirable that the structure containing such plants as Crotons and Dracænas should be thoroughly cleansed at this date. The plants also should be overhauled, and those which are of little value discarded. The whole of the plants should be thoroughly cleaned before arranging them again in the house. At this time of year it is very important that the plants are not overcrowded, or they will lose a lot of their lower leaves. Less moisture, both at the roots and in the atmosphere, must be given. Admit a little air during the warmest part of the day to sweeten the atmosphere. The minimum temperature may range between 65° and 70°, according to outside conditions. Gloriosa superba should now be induced to rest by gradually withholding water, eventually laying the plants on their sides underneath a stage in a greenhouse temperature for the winter.

Chrysanthemums.—Much care will be necessary in watering plants which are opening their flowers, so as not to spill the water about the floors and stages. All watering should be done before noon, and any which may have been spilled should be wiped up. Stimulants must not be given to plants on which the flowers are approaching their full size. Later plants should be given a little artificial manure, but in less quantities than formerly. Examine the large blooms every day and carefully remove decaying petals. Admit plenty of air to the structure and, when the atmosphere outside is close and moist, slightly heat the pipes. The latest plants may still remain outdoors, provided there are sufficient materials to thoroughly protect them in case of severe frost.

Flower Garden.

Planting.—All spring-flowering subjects should be planted without delay. Vases and some of the smaller beds near to the dwelling may be filled with dwarf shrubs. Golden Privet, Aucubas, Euonymus, Retinosporas and many others are well adapted for this purpose. Where bulbs are used extensively, a careful watch must be kept for rats. They will do irreparable damage when once they commence their depredations if they are not quickly destroyed.

Dahlias must now be lifted and stored. See that they are plainly and correctly labelled before placing them in their winter quarters. Put them in a dry place where frost can be excluded.

Sweet Peas.—A sowing of Sweet Peas should be made at the end of the month on a dry, sheltered border. The advantage accruing from autumn sowing is that flowers can be cut several days in advance of those sown at the beginning of the year. If a sheltered border cannot be devoted to them, the sowing had better be delayed till December. After the seeds are sown, a sharp look-out must be kept for mice. These pests will clear away the whole of the seeds if they are not trapped. The Sweet Pea enjoys a rich soil; therefore the ground must be deeply trenched and heavily manured. Sow the seeds more liberally now than is usual in the spring, as there are sure to be some failures. When the seeds are through the ground, they must be protected from birds.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Hardy Fruits.

Storing.—The gathering and storing of the later varieties of Apples, Pears and Plums should be attended to when the weather is dry. This has often to be done before the fruits are properly matured, owing to the depredations of birds, which, finding their food supply growing scarce, do much damage to the crops still hanging. Late Pears, if on walls where they can be easily protected, should be left hanging until they are fully matured.

Planting.—The season for considering fresh plantations has now arrived, and preparations should be made accordingly, so that no delay may occur when the trees have arrived from the nursery. The selection of varieties must necessarily be limited to those that are known to succeed best in the district and which will best meet the requirements of the establishment, with the addition of one or two new varieties that are likely to prove better than some established sorts. Do not, however, be induced to plant largely of a kind that may have caught your fancy on an exhibition table, probably grown under conditions which you are unable to provide for it. It is also advisable to pay a personal visit to the nursery and select the trees for yourself, if for no other purpose than that of being satisfied they are not infected with American blight or other pests, for the introduction and rapid spread of this and other blights have been frequently traced to purchases from an infested area. Fruit trees should be planted, if possible, in the autumn. Those planted just before or as soon as the leaves have fallen make earlier and better growth in the spring and require much less attention than spring-planted ones. The preparation of the soil should consist of deep cultivation and incorporating a quantity of fresh, turfy loam and lime rubble, adding manure only in the form of a mulch.

Root-pruning.—It is hardly possible to over-estimate the importance of root-pruning fruit trees to render those which are over-vigorous more fruitful. Recently-planted trees can be best treated by lifting and replanting, at the same time cutting away the strong tap roots and spreading the fibres out evenly from 4 inches to 6 inches from the surface. If the soil is at all dry, the trees should receive a good soaking before they are lifted. Large trees that have lately developed a too vigorous growth should be root-pruned by lifting one side of the tree at a time, completing the operation the following season. Get well under the bole of the tree where the large tap root is usually found, its removal alone being generally sufficient to secure a better fruiting tree.

American Blight or Woolly Aphis.—Where this pest is present, some of it may have escaped observation when treating it during spring and summer. If so, it will rapidly develop at this time and be easily wafted about by the wind to other trees. The affected parts should be washed over with a strong solution of paraffin or methylated spirit, and those trees where it has gained a footing should be marked for winter treatment, as it is generally found on the stems and roots just under the surface soil. The first favourable opportunity should therefore be taken to scrape away the soil and brush all affected parts, remove the soil to the fire-heap, and replace it with fresh, clean soil from the vegetable quarters.

Thomas Wilson.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

TREES AND SHRUBS.

TREES IN IRELAND.

IRELAND at one time was famous for its forests; to-day it is famous for the want of them. Historians tell us, even as late as the twelfth century, that no country in Europe possessed woods in proportion to its area equal to Ireland. To-day we are told no country in Europe in proportion to its area possesses as little timber, and every year this is becoming less. The landed proprietors have practically ceased planting. The land of the country is rapidly becoming the absolute property of the farmers, and these, as a rule, have little respect for tree-life, so that the wholesale slaughter of the trees is the result. However, we live in hopes of better times. The Board of Agriculture have purchased several well-wooded estates. In two of these forestry schools are established, where young men are trained in the practical and scientific management of woods. We hope in the near future to get a substantial Government grant, so that a beginning may be made in reafforesting the country. These young men are being trained with a view to assisting in carrying out this work. County councils are now permitted and assisted in the purchasing of small woods and land suitable for planting. Some counties have, and others are, availing themselves of this. Farmers are also being assisted in planting on a small scale. We have nothing here to compare with the New Forest, but we have at least in one case the remaining portion of a much more ancient forest. At one time a huge natural Oak forest extended from Dublin to the borders of Wexford, covering a distance of some sixty miles. Part of this natural forest is still to be seen at Shillelagh, in the Wicklow domains of Earl Fitzwilliam, Coollattin. There is also found at the bottom of all bogs resting upon clay soils Oak timber as black as ebony and almost as hard as iron; it has been so coloured by the bog water permeating every pore. It is from this timber that the well-known Irish Bog Oak ornaments are manufactured. There is said to be a buried Oak forest extending for many miles along the shores of Lough Neagh. The water of this lake has the peculiar effect of fossilising wood, converting it into a material quite as hard as stone. At Portmore Park, on the shores of the lough, within the memory of some of the present residents there grew an Oak 42 feet in girth and 25 feet to the first branches. When cut down its timber is said to have been sold for £97, not including the bark.

The climate and soil are particularly favourable not only for the growth of large timber, but also for a great variety of hard woods and coniferæ, as instanced at Fota Island, County Cork, in the South, and Castlewellan, County Down, in the North. I send photographs of an evergreen Oak (Quercus Ilex)—[Unfortunately, not suitable for reproduction.—ED.]—which is growing in the grounds of the Earl of Courtown, Gorey, County Wexford. It is supposed to have been planted about three hundred years ago. The circumference of the stem in its smallest part between the root and spring of the branches is 27 feet. The branches cover an area 328 feet in circumference. This tree is still full of vitality, although some twenty-three years ago a heavy snowstorm broke down some of its finest boughs, destroying at least one-third of the tree. Since then it has thrown out fresh boughs, which have practically filled up the gap then made. In the same place is a beautiful avenue of Evergreen Oak. It is difficult to account for the scarcity of this tree, even in large domains. It is very easily raised from the acorns if these are sown in beds in April and covered with about 2 inches of moderately fine soil. After two years the seedlings should be transplanted into lines 24 inches by 12 inches. The training of the trees should then be taken in hand, the best form being the pyramid. It is very desirable to again transplant into lines 3 feet by 2 feet. The trees may remain another two years, when they should be nice, well-furnished trees at least 6 feet high. More especially in limestone soil the Evergreen Oak makes very rapid growth, and can be easily trained into beautiful specimens. Unlike the ordinary Oak, it can be cut and trained into any form. The foliage of the seedlings varies very much, scarcely two being alike when young. There is no better or more handsome shelter tree.

In transplanting, great care is required not to injure the roots. When the writer was in charge of the gardens at Ashford, Cong, County Galway, hundreds of fairly large trees were moved with the utmost success as follows: We cleared around the tree, leaving the roots and soil in which the roots were intact. Around this were placed strips of thin turf from an old grass field. The tree was then tied firmly round with twine, the whole lifted and placed in the permanent site, the twine untied, and the turf laid back so as to admit of some fine soil to go between it and the ball of the tree. Not only with the Evergreen Oak, but several other trees which were difficult to transplant, we used the turf, and found it much more satisfactory than tying bast mats around the balls.

Dundelo Park, Strandtown, Belfast. S. SCOTT.



SPRAY OF THE RARE SNOWBERRY, SYMPHORICARPUS OCCIDENTALIS.

A RARE SNOWBERRY.

IN a season when fruiting or berry-bearing shrubs are carrying heavy crops, which are now becoming very conspicuous, it seems difficult to specify any one of special merit. But a large breadth of the rare Snowberry (Symphoricarpus occidentalis), as seen growing in Messrs. J. Veitch's Coombe Wood nursery, certainly showed to me the other day a remarkable fruiting shrub. The plants generally were some 30 inches in height, but so heavily laden with pure white berries that the woody stems could not hold them erect. One branch 2 feet long carried sixteen separate clusters of berries, and the whole was of great weight. For furnishing white fruiting sprays this Snowberry is unrivalled. Rosarians who grow Rose species for their fruits will find, when put into commerce, very fine fruiters in selected seedlings from Rosa microphylla, raised from seed sent home from China by Mr. Wilson, also the fine-leaved, long scarlet-fruited Myseii. Cratæguses, Cotoneasters, Hollies, Aucubas, rugosa Roses, Sea Buckthorns and Crabs are fruiting abundantly this season.—A. D.

FRUIT GARDEN.

FRUIT NOTES

ORDERS FOR TREES.—There are prospects that early planting will be the rule this season, and, in any event, those who have such work to do ought to compile their orders and forward them to the nurseryman without another day's delay. They will be sent immediately favourable conditions prevail, and as all orders are executed in rotation as received, the man who has sent his in in good time has the best chance of securing the pick of the plants. If doubt exists as to the finest varieties to choose, describe the soil and surroundings clearly to the nurseryman and leave the matter to his judgment.

LATE APPLES AND PEARS.—These will now all be ready to come off the trees; indeed, the probabilities are that they will have been harvested before these lines see the light of print. It must, however, be borne constantly in mind that it is only those specimens which are allowed to hang till the last possible moment which will develop full keeping powers; early picking may be more convenient at times, but the trouble is that, except

in extraordinary circumstances, the fruits thus treated will shrivel badly and lose considerable value. In any case let each fruit be handled so carefully that it is impossible for it to receive the slightest injury, and during the fourteen days immediately after harvesting examine each fruit individually once or twice to see whether there are signs of trouble from any cause; if so, take out the faulty ones and either burn them if fungus has appeared, or use them immediately if the damage is superficial only.

Grease Bands.—If the grease bands have not yet been put round the trunks, let the task be accomplished instantly. As a matter of fact, they should have been in position by the end of September; but those who were not so prompt as they might have been must hope that few, if any, of the moths will yet have found their various ways up into the trees. Bands put on at once will catch many of these travellers, provided that they are not only sticky when applied, but that they are maintained so until the end of next February at the soonest, and preferably into March. Personally, I pin my faith to cart-grease on two thicknesses of good quality brown paper; but I am forced to admit that the bands advertised for sale in The Garden are quite as efficacious, more pleasant to handle, and continue effective for a much longer period, bringing my own objection to them down to the sordid one of cost. Cart-grease is cheap, and although it has to be renewed many times, it comes out more profitable in the long run.

Planting Bush Fruits.—Currants and Gooseberries, as well as Raspberries, Blackberries and Loganberries, should all be planted by the end of the month if it can possibly be managed. The roots have a better chance to secure a hold, and the way is cleared for the planting of the big fruits. No pains must be spared in the preparation of the soil and in forming stations of sufficient size comfortably to accommodate the roots, with a surround of at least 9 inches of sweet, fresh soil. The roots must be spread out to their full extent, always giving them a downward with an outward tendency, and the ground must be made firm about them. In the case of Currants and Gooseberries, there may be a little fruit in the first season, according to the age of the plants; but with the other three named the stems should be cut hard down to prevent the possibility of any cropping until the second year, as this gives time for proper establishment.

Pruning.—With the end of the present month the important work of pruning ought to be well in hand. Operations will commence on the various forms of trained trees, on the walls and trellises, and then will pass to the bush and standard trees in the open quarters of the garden. Trees which are growing too luxuriantly to flower must have attention at the roots as well as in the branches, and efforts should be made to complete all such work before the whole of the leaves are down. If any error is made in cutting, let it be on the side of over-thinness rather than the reverse.

Fruit-grower.

THE NANNY APPLE.

I had not seen the above Apple for many years, but half-a-dozen fruits lately received brought back to memory the Sussex orchards and fine old standard trees that would yield in favourable seasons their bushels of fruit, and it might fairly be termed a consistent as well as a great cropper. It is not a good keeper, the fruit soon becoming mealy, but at its best of really excellent quality; in fact, there are few better early October Apples. I have never grown or seen it grown as a bush or cordon, but from the habit of the standard trees I should say it would be very well adapted for the more restricted mode of culture.

I have before me at the time of writing a fruit from a Hampshire garden gathered from a tree raised from a pip, and it is identical with the subject of this note, a fact that would lead to the inference that the Nanny Apple sometimes comes true from seed.

A. G. B.

PEAR DURONDEAU.

This Pear, which ripens about the middle of October, a little earlier or later, according to the season and the aspect in which it is grown, rarely ever fails here. The crop this year is exceptionally good. I have grown this Pear for many years. When in Kent I formed a good opinion of it, so well did it succeed with me, and I have from time to time noticed excellent exhibits of it at the large fruit shows. The flesh is white, juicy, very melting and luscious, and the fruit keeps better than some varieties. It was raised and the original tree existed in the garden of the late M. Durondeau at the village of Tongre Notre Dame, near Ath, Belgium.

Barnet. H. Markham.

THE FLOWER GARDEN.

COLCHICUM SPECIOSUM RUBRUM.

THE alpine garden is inclined to be somewhat bare of flowers by the end of August, but with the advent of September we hopefully look forward to some of the first of the bulbous plants which brighten the declining year, and which appear so particularly at home in little groups among the rocks backed by the rich verdure of overhanging mats of Mossy Saxifrages. Colchicum autumnale is one of the first to gladden us in this way, and before this is well out, its glorious relative C. speciosum charms us with its beautiful cup-like flowers, springing nearly 1 foot high and ranging through the several varieties, from purest white, with golden anthers, to rich rosy purple in C. speciosum rubrum.



A CLUSTER OF COLCHICUM SPECIOSUM RUBRUM.

A group of these lovely flowers comes as a pleasant surprise when most of the garden is rapidly approaching the "sear and yellow" stage, and carries our thoughts, with pleasant anticipation, towards the rich harvest of winter and spring flowering bulbs of daintiest purity. It is remarkable that the Colchicums are not more frequently met with in our gardens, especially as they are eminently suitable for deep planting, so that subsequently other surface-rooting plants, such as Sedums or any dwarf carpeting plant, can with great advantage to the Colchicums be put over them, thus preventing the autumn rains splashing dirt and soil on to the beautiful petals. Further, the plants are not fastidious as to soil, any ordinary sandy loam being acceptable, especially if the position is moist and sunny. As will be seen by the accompanying illustration, the flowers appear before the leaves, an added reason

for a suitable carpet through which the flowers may come.

Woodford Essex. REGINALD A. MALBY.

MECONOPSIS RACEMOSA.

THIS beautiful plant belongs to the same group of the genus as the better-known M. aculeata. It has now been in cultivation for nearly ten years, and is a native of the high alpine valleys of Western China and Thibet, and is also found on the Eastern Himalayas. M. racemosa is considered by some authorities to be merely a variety of M. horridula, which is a very small plant with simple-flowered scapes, found on very high elevations. This latter plant is probably not in cultivation at the present time. The stem in the plant illustrated was nearly 2 feet high, with a raceme of flowers on rather long pedicels. It first makes a rosette of long, narrow, lanceolate, leaves clothed with long, stiff hairs, while the large flowers vary in colour from deep blue to a light purple shade, and have a semi-double appearance, with five to eight petals. It is a biennial, sometimes flowering in a year from seed, but often goes on for another year before flowering. When given congenial conditions it may be considered an easily-grown plant, and to obtain the best results should be planted in a sheltered or shady place. The soil should be of a good fibrous loam, with plenty of leaf-soil, and enough sand to keep it open. Moisture at the root is essential, but, at the same time, thorough drainage must be provided. Seeds are produced and ripened freely, and should be sown in pots or boxes in a cold frame in early spring. Potted off as soon as they are large enough to handle, the seedlings may be planted out the following spring for flowering the same summer. During June and July a succession of flowers are produced, making it a very attractive plant for shady corners in the rock or bog garden. Another member of this dwarf section is M. sinuata latifolia. W. I.

A USEFUL ASTER FOR THE WOODLAND.

(A. AMELLUS BESSARABICUS.)

BEYOND a few spring flowers such as Bluebells, Daffodils, and possibly Primroses, there are few flowering subjects that can be as safely recommended for the woodland garden as a charming dwarf Michaelmas Daisy known as Aster Amellus bessarabicus. Growing to the height of about 2 feet, it is a particularly free-flowering variety, and one which succeeds under the shade of trees. As a garden flower for planting in the foreground of a shrubbery or in the front row of a herbaceous border, it is a variety of great utility, and its value cannot be over-estimated. Moreover, it is exceedingly useful for cutting, and the flowering sprays are shown to advantage in vases for house decoration. It commences to flower in August, and continues to do so until well into October. The flowers are of a bright mauvy purple. When planted in large masses, as shown in the illustration on the next page, it forms a perfect sea of colour. Like most other varieties, it is of easy culture, and will succeed in almost any garden soil.

EARLY TULIPS.

IN the following notes I am going to write entirely from a pot standpoint. I say this by way of preface, for anyone who is not conversant with early Tulips cannot appreciate how greatly the different methods of cultivation affect their general appearance. Novelties are very few and very far between. Hardly anyone, so far as I am aware, is seedling-raising. Practically all the newer varieties are sports of older ones, as, for example, Cottage Boy (or Village Boy) from Cottage Maid.



A BEAUTIFUL HARDY PLANT: MECONOPSIS RACEMOSA.

One great practical difficulty with many varieties is that they are always inclined to flower on very short stalks, and in such a state no one likes them. They look so squat and stumpy, and are anything but ornamental. When, however, one realises that this is in many cases only their natural habit of growth—witness a bed out of doors of Proserpine or Princess Marianne, so often called "Princess Mary Ann," *a la* "Billy Ruffian" for Bellerophon and "Grey Parsons" for Grape Hyacinths, as my old gardener invariably had it—then one is not surprised at what the uninitiated might think was but their own naughty perversity, or possibly some remissness in watering on the part of the person in charge. All such kinds want "drawing up," and this can best be accomplished by keeping them in darkness and without much air for a certain period of their earlier growth. Given these conditions and a fairly warm temperature, all that remains to be done is to gradually inure them to full light, so as to get the proper green into their foliage. I have been told by market-growers in a very large way of business that the early Tulip cut-flower trade is an extremely fickle one, and that a huge profit or a big loss is no criterion of what will happen next season.

It may be of interest and use if I mention some of those which are usually grown. Thomas Moore, a beautiful terra-cotta yellow or apricot, is very popular, and immense quantities are yearly forced. It comes "easily," and has a good long stem. For cutting it is, of course, one of the best. Another variety which is beginning to attract notice is Rose Luisante. If it became a little cheaper it would probably supplant all the other rose pinks. For growing in private gardens where the £ s. d. has not to be so much considered I strongly recommend it. A flower that was conspicuous by its absence when I visited some large forcing establishments at Hampton this spring was Duchess of Parma. For dinner-table or room decoration at night I consider it has no equal. The beautiful shade of orange red that it has under artificial light is just what everyone goes mad about. On enquiry I found it was not grown because it was a bad traveller. This does not apply where it can be used on the spot, and to those who use Tulips or want Tulips for evening decoration I say, "Try Duchess of Parma." For a yellow none is more graceful or longer-stemmed than Prince de Ligny. I like it very much indeed.

Passing to potwork pure and simple, I would draw attention to some that are a little out of the common; but in so doing I must not be understood to mean that there are not plenty of good fish left in the sea. Prince of Austria, for example—the king of the early section, if not of all Tulips—and Couleur Cardinal, that grand mid-season rich crimson with the plum bloom exterior, must always hold their own. But to proceed. First and foremost comes in my own scale of likes Jenny, a perfectly-formed flower of an unusual shade of cherry rose, with a white flame on the outside of the petals, very sweetly scented, and with good lasting properties. It is not a tall grower, and it has a stiff, sturdy stem. Although some catalogues recommend it as a bedder, I must say I do not agree with them. Brunhilde, or, to give its more descriptive name of white and gold Pottebakker, is a lovely variety, with all the qualities that make a Tulip a suitable subject for pots. The broad, soft yellow flame on the pure white of each petal makes it, as its third name suggests, "Unique." La Remarquable in olden

times would have been described as an "edger," but it is a greatly-improved one. An old book that has lately come into my hands speaks of them thus: "leaving out the Edgers, which are of least note." I imagine the author would mean such kinds as Lac van Rijn or Duc de Berlin, and, if he did, I would be with him. Not so, however, with La Remarquable, which is a fine, pointed flower of a rich plum red, margined with silvery cream. An even more beautiful one of this type is Lord Balfour; but I fancy, unless my friend Polman Mooy has any, that I have the only few bulbs that there are. As I have been led into the past, let me say a word for the "rectified or broken" earlies. We give them the cold shoulder nowadays, and they are seldom seen. A few pots, nevertheless, make an acceptable change, and for a byblœmen (violet and white) I suggest Globe de Rigaud, and as a rose Admiral Reyniers. Curiously enough, I do not seem to know a bizarre unless one might so class Spaendonck, which has a cream ground, splashed and striped lilac rose. With the mention of Flamingo, a big, crinkled-looking bloom, rosy carmine and white; Hector, a distinct reddish orange shaded yellow at the edges of the petals; and Rose Luisante, a superb rose, I must end my list of singles. In the doubles I am only going to mention two—first, Safrano, a loosely-made bloom after the style of the semi-double Salvator Rosa, but of the most lovely Maréchal Niel Rose colour (it makes an ideal spray for a lady's dress); and Schoonord, a pure white Pæony—well, that is what five people out of six would guess it to be if they were to see just the bloom set up, say, show Carnation style, with no stem or foliage. It is *very beautiful*, and what will be acceptable news to all, it is getting fairly cheap, as it is a good doer.

Joseph Jacob.



A DWARF STARWORT, ASTER AMELLUS BESSARABICUS IN A WOODLAND BED. (*See page* 510.)

ROSE GARDEN.

POTTING UP ROSES FOR FORCING.

THERE is no need to delay this work this year, for the plants are in a well-ripened condition for lifting at any time. Those who have to handle large quantities of pot Roses are well aware of the great superiority of budded plants, dug up from the open ground and potted, over plants grafted and grown under glass. There is a far more healthy and powerful root to start with, and this means so much in successful pot Rose-growing. Then, again, one may obtain a supply at one-fourth the cost, because railway charges for pot plants are always so excessive; therefore I would advise any gardener who is in want of some pot Roses to pot up his own plants at once. If possible, go to the nursery and select your own plants; if not, insist upon having bushy maiden plants upon Briar or Manetti, but only the Hybrid Perpetuals and a few of the Hybrid Teas should be on the latter stock.

Having obtained the plants, remove all foliage and "heel" in the plants under a north wall until ready for potting up, and take care to give them a watering now and then. Eight-inch pots are the best size to commence with, although many use those 6 inches or 7 inches in diameter; and the pretty little Polyantha Roses, that are so lovely and charming as table and window-box plants, may even be potted into 5-inch pots

A good compost would be two parts loam, one part well-rotted manure, and about a 6-inch potful of bone-meal to two bushels of compost. If some broken oyster-shells are available, or some half-inch bones, these may be used to advantage among the crocks. The compost must not be too wet or too dry, and is best kept in a covered but airy shed. When all is ready, take a few plants out of the soil and trim back the roots to about 4 inches or 5 inches and the tops to 15 inches or 18 inches, and sprinkle the roots with water or dip them in water; then the plants are ready for potting. Having crocked the pots, some lumpy pieces of turfy loam are placed on the crocks, then a little finer soil is sprinkled over them, and all is rammed hard with the potting-stick. Now hold the plant in the centre of the pot and put in some of the compost, ramming this very firm; then put in more compost, and so on until the soil is within half an inch of the top of the rim of the pot. The plants are now placed outdoors upon a bed of ashes, standing each quite level and, if there is no rain, are watered the next day.

After watering them three or four times as required, the plants are plunged in some material, such as coal-ashes, old tan, or sawdust, and the rim of the pot is quite hidden with the plunging material. Here the plants remain until February, and if a few are wanted to put into a cool house, they may be lifted out and pruned; but I much prefer to keep the plants outdoors for one year before forcing them. If this plan can be adopted, keep them plunged until May; then replunge them well in the open, placing them about 1 foot apart each way. This gives ample room for development, and plants may be tied out to Bamboo frames if desired. Of course, during the summer they will need close attention as regards watering, and liquid manure must be given occasionally. They will bloom about July, being pruned in March with other Roses, and will afford useful material for temporary use during the July days.

If desired, the plants may be grown in cold pits, which would accelerate their growths by a week or two, and they would provide blooms at a time when they are often much wanted, that is, early June, when the indoor pot Roses are all over and the outdoor plants scarcely in bloom. I need not give a list of the best forcing sorts, for this has been done so often, but would just say that nearly all the lovely Hybrid Teas force well, and the rather thin Roses are always a success, especially in a somewhat low temperature. Rambler Roses may be potted up also, but they are best left until November.

P.

THE AUTUMN PRUNING OF ROSES.

This very necessary work is too often neglected, even in the best gardens; but that it pays, no one who has carried out the practice annually will deny. The clearing out of old wood from climbers and ramblers is fairly well understood, if not always observed, and a timely hint that it may still be done will, perhaps, set some of my readers to work. The multiflora ramblers can always be freely relieved of old wood, providing they have made a considerable number of new growths, which is not always the case. There used to be an Irish axiom in the

Army, so the late Rev. H. D'ombrain once told me when referring to another matter, which said that it was unwise to throw away dirty water until one obtained clean. And so with Rambler Roses; do not recklessly cut away old wood without due thought as to what is to provide the bloom for next year. Most readers know that the young ripened growths of the multiflora ramblers produce the best trusses of bloom.

Now with the wichuraianas, although the same facts hold good, the old wood of this tribe does not deteriorate to the same extent as that of the multifloras, so that if large areas have to be covered, then by all means retain some old wood. But it is mainly to the Hybrid Perpetuals and the summer-flowering Roses that autumn pruning will most apply. These misnamed Hybrid Perpetuals are very quiescent just now, and one can readily see which of the old shoots should go to make way for the young growths next year. Cut out these old growths now as low down as possible, and retain five or six or less of the fine young growths of the current season. This provides not only more air and light for the centres of the plants, but it also concentrates the plants' energies upon those shoots retained, which is highly beneficial for another season. This work may be done now at any time, the sooner the better.

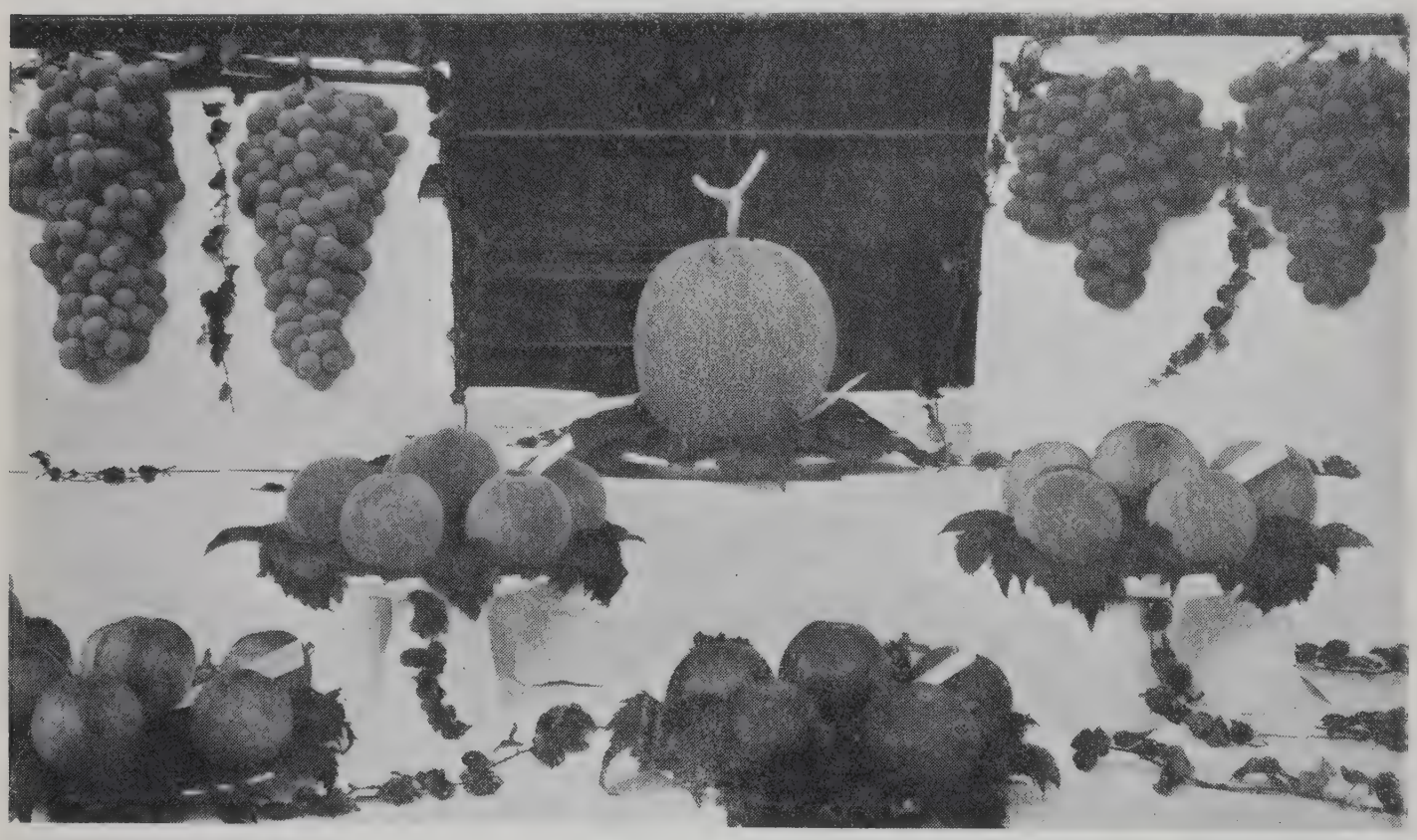
Moss Roses, Damask and Maiden's Blush Roses, Gallica or French Roses, and some of the other early-flowering tribes may be treated as described. Penzance Briars and other Briar Roses may also be looked over now and old wood removed where it seems to encumber the plant too much, although in the ordinary meaning of the term these Briar Roses need no pruning. If, however, we observe a wild Briar in the woods, we shall see an effort made to rejuvenate the bush by the production of a lot of new basal growths, which seems to say that the old wood has played its part and must go; and as work in the garden accumulates rapidly in spring, if some of it can be done now so much the better. Weeping Roses may be relieved of some old wood; this is not only beneficial in itself to the remaining growths, but the trees are less liable to be damaged in winter by a heavy snowfall.

On all Roses the ends of young growths may be pinched back now, which aids considerably in the more perfect ripening of such growths, for undoubtedly a Rose is much like a Vine or fruit tree; it cannot produce good bloom from soft, unripened growths. Where the plants are subject to strong gales, the long growths of many Hybrid Perpetual Roses may be cut back to about 2 feet, and this would apply to all but the rambler section.

Under glass, the plants that have been dried off for some few weeks may now be pruned and the borders lightly forked up, or, if in pots, the soil lightly stirred. Indoor Roses with moderate heat should be allotted about ten or twelve weeks for the perfecting of their crop of bloom.

ROSE BEAUTE DE LYON.

THIS is perhaps one of the most unique coloured Roses yet raised. It is described as coral red, but this does not give a faithful description of its peculiar shade of colour. It is one of those Roses that catch the eye of every visitor, and one is not surprised it received the gold medal at the Bagatelle trials. There is nothing special about the flower beyond its colour. The buds are pretty and the open flower fairly shapely, but it is not one we shall use much for cutting. It will be largely grown as a bush Rose, and doubtless as a standard. It is quite one of the new group Pernetiana, the relationship to Soleil d Or being very marked both in wood and foliage. Evidently a very hardy Rose, I should say it will be planted in quantity when better known. P.



THE SILVER CUP COLLECTION OF DESSERT FRUIT SHOWN BY THE EARL OF HARRINGTON IN THE PREMIER CLASS AT THE ROYAL HORTICULTURAL SOCIETY'S FRUIT SHOW.

THE TOWN GARDEN.

IN all probability the back-yard of a crowded suburb or town is about the worst place that could be conceived for finding healthy plant-life; yet I have seen it in such places, and where it has obviously been the outcome of devotion and constant care. Success in such circumstances, and where nothing more than neglect and soot-begrimed vegetation are usually found, is not only a revelation—it is an object-lesson of great educational value which should inspire others to do likewise. Obviously the hobby and pastime of its owner, its elevating and refining influence cannot but be shed upon or imparted to those around; hence the end is not easy to foretell.

IN THE MIND'S EYE AT THE MOMENT there exists a paved back-yard over which a few spare frame-lights had been rudely arranged to form a span-roofed covered way—the only "greenhouse" possible in the circumstances. Everything—heavy sash-bars, small glass squares and the like—savoured of considerable antiquity, and, in the naturally-restricted limits one has in mind, no great amount of light existed. At the same time, the freshness and beauty of plant-life and flower rendered the place a great attraction, and was the subject of common talk around. Ferns in variety, many of which were hardy, Fuchsias, Ivy-leaved and Zonal Pelargoniums, together with a goodly display of Begonias in summer-time, were, with Campanulas, all grown freely and well, demonstrating what is possible where the love of flowers exists. The heating was done by the usual hanging oil-lamp. In short, here was a spot too frequently given over to lumber made beautiful and interesting for many weeks on end, apart from the pleasure it gave to quite a large number. This is town gardening in very truth, and is on quite an elaborate scale as compared to other instances known to the writer where no glass corridor exists, and where the only gardening possible is that done

IN TUBS OR PAILS ON SHED ROOFS or similar places. Quite recently I saw many instances of this in one of the most densely-populated districts near London, and to attempt to garden at all in such places, the love of flowers must have been deeply rooted indeed. It is in such circumstances as those named, however, that a few green leaves and flowers are really prized—prized to an extent that is almost pathetic to see. Only the other day I noticed an attempt to grow standard Roses in butter-pails on the roof of a back kitchen, and where the proverbial square yard of garden was non-existent. Naturally, the idea was a little ambitious and the success not great, but the love of flowers existed, and so, too, obviously, the principle of "nothing venture, nothing win."

SALVIA PRIDE OF ZURICH.—During recent weeks I have seen nothing finer than this exceedingly brilliant vermilion scarlet flowered plant. An entire bed on the grass was filled by the plant, which was not 18 inches high, and quite a blaze of colour. The picture was the result of small plants set out in June; and where Darwin or other Tulips are employed in spring, I know of no finer plant for bringing up the rear than this Salvia.

EARLY FROSTS.—It is curious to note the varying effects of the frosts during the early days of the month. In some instances Vegetable Marrows were quite ruined, while Runner Beans escaped; and in other gardens a few yards away just the opposite had happened. S. N. N.

GARDENING FOR BEGINNERS.

LIFTING AND POTTING CARNATIONS.

OCTOBER is the month during which it is customary to lift Carnation layers with the object of potting them. It is quite time this work was taken in hand and the plants transferred to their winter quarters. Many growers are content to transfer the rooted layers direct to their permanent quarters outdoors,



1.—READY FOR LIFTING.

planting them 14 inches to 15 inches apart. It is a much better course, however, to take rather more trouble and pot up the rooted layers as soon as they are ready to be dealt with. Assuming the layering of Carnations was done in the early days of August, and the layers have been well cared for by constant attention and repeated applications of water, they should be nicely rooted by this time, and be in capital condition for the lifting and potting process. Carefully-prepared soil for potting Carnations invariably brings its due reward in satisfactory progress and good results in the end. Opinions differ somewhat in the character of the compost used for potting these plants, and this diversity of opinion will continue, no doubt, for all time. A suitable compost may be made up of good turfy loam, leaf-mould and coarse silver sand, or clean road grit. Of the first-mentioned ingredient take three parts, and of leaf-mould and coarse sand one part of each. These should be thoroughly mixed, and the prepared compost kept in a cool shed to maintain it in a nice workable condition until it is required for use. Suitable pots into which to place the rooted layers are those 3 inches in diameter.

Close observation of carefully-layered Carnations will quickly enable the merest novice to determine when the layers are ready, and to assist any reader who may be in doubt, in Fig. 1 is shown just an ordinary border Carnation with several layers that are growing away freely, indicating in no uncertain manner that they are ready for lifting and potting. So soon as the satisfactory rooting is determined, the stem of each layer in turn should be cut through with a sharp knife between the layer and the main stem of the plant. A garden trowel should then be inserted (as shown in Fig. 1) so as to lift each layer with care, and so that a good ball of soil and roots may be, as far as possible, lifted intact. The pots should be crocked with proper care, and the crocks covered with some of the rougher portions of the compost, to prevent the smaller particles of soil getting into the drainage and clogging it.

On the left of Fig. 2 is depicted a rooted layer just severed from the plant shown in Fig. 1, in which the layer has been lifted with a mass of soil and roots by the aid of a garden trowel; and on the right of the same picture a rooted Carnation layer potted up. Firm potting is a point that should be carefully observed at this period. As soon as the batch of plants for the day is completed, water them in with clear water, using a fine-rosed can for the purpose. After leaving them for a time to drain, the plants should be transferred to a cold frame, standing the pots on a layer of sifted ashes or coke breeze. Many growers attribute some of their success at this early period to the plunging of the pots in Cocoanut fibre. The frame should be kept close for a week to ten days until the rooting process has recommenced, when air should be admitted. The frame-lights should never be closed subsequently; the plants must always have air if they are to be maintained in a healthy condition throughout the late autumn and winter. In very severe weather cover the frame-lights with mats, and when snow is in evidence afford protection and give plenty of light. The Carnation does not need to be coddled, but it likes a dry and airy condition while sheltered in cold frames. Very little water will be required, and only then when mild weather prevails. D. B. CRANE.

SCILLAS FOR POTS AND BORDERS.

THE Scilla, or Squill, as this lovely blue spring-flowering plant is called, should be largely grown in small gardens because such a fine display of blossom can be obtained from a limited space. As the bulbs do remarkably well when left undisturbed for a number of years, they may be even grown among the roots of hedge plants. For more than ten years I had plants so growing among the roots of a Sweet Briar hedge, and the tiny blue flowers looked very charming when they appeared in great profusion soon after Christmas every year in the warm border allotted to them. If possible, these bulbs should be grown where it will not be necessary to disturb them for a number of years, as they will increase in strength year by year and are perfectly hardy with the exception of the varieties japonica, rose; parviflora, blue; and ciliaris, blue. The only care needed, when once the bulbs are established, is to give them an annual top-dressing of rich loamy soil and well-decayed leaf-soil in equal proportions. This mulch is best put on early in the autumn. As clumps or rows near to garden paths, at the edge of shrubbery borders, and even in rough ground and woodlands, the Scilla is equally at home after once getting well established.

Plant the bulbs at once, if not already planted, and bury them 2 inches deep, leaving a space of 3 inches between each bulb so as to allow room for the future development of other bulbs. In clayey soils it will be advisable to place a small quantity of coarse sand around the bulbs, but this is not necessary where rather light or sandy soils obtain. Scilla sibirica is probably the best one to cultivate in pots, as the growth is compact and dwarf, the flowers being of a very bright blue and showing to great advantage in a cool greenhouse, glass porch, or dwelling-room window. The white variety alba may also be grown, if only to form a contrast. Twelve bulbs may be placed in a 5½-inch pot in a light, sandy compost made firm. Any manure used must be well rotted. This variety may also be grown in the open border, and with it the following: S. nutans, blue; alba, white; and rosea, rose. S. campanulata, also alba, white; Blue Queen, porcelain blue; Excelsior, blue, very large flowers; and rosea, rose. S. bifolia, blue; alba, white; and rosea, bright rose. AVON.

LOAM, MANURE AND POTTING COMPOSTS.

THE present is a very good time for procuring and storing loam, leaf-soil and manure, all of which are the chief ingredients of potting composts which will be in great demand soon after Christmas. It is always pleasant and convenient to have a good stock of potting composts to hand when required in the busy season. Furthermore, such composts are in just the right condition to use after being stored for several months. Loam intended for potting purposes should be fibrous, and this kind can only be obtained from land which has long been under pasture or grass treatment.



2.—SUITABLE PLANTS FOR POTTING ON.

The portion near the top, for about 3 inches, contains the most fibre; it is thoroughly permeated by the fine roots of the grasses, and holds together much longer than that which has no fibre in it. Some kinds of plants, however, will thrive in fibreless soil, notably Melons, so that economy may be practised by retaining the fibreless portion for plants of this kind.

The turves must be cut not more than 3 inches thick and stacked on a dry base in an open quarter. I prefer to do this rather than put it in a dry shed, as the turf mellows better in the open air. Leaf-soil must be very carefully dealt with. In the first instance, the leaves should be gathered without sticks and other foreign matter with them. Instead of heaping up the leaves, lay them out rather flat, so that the rains will wet them and hasten decay; if occasionally turned over the leaves will decay more evenly. When rather more than half decayed, throw them up, forming a conical-shaped heap.

Manures must always be kept dry—not in an artificially-heated place, but in an open, cool shed where rain-water will not wash out the goodness. Peat and sand must be stored in a dry shed, the former being cut at least four months before it is used. SHAMROCK.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

THE GREENHOUSE.

Rust on Chrysanthemums (*M. A. B.*).—Yes; the disease is infectious, and all affected plants should be isolated at once. As a general rule, where plants are very badly diseased, it is the best policy to destroy them. As an alternative you ought to syringe the plants forthwith with a solution of sulphide of potassium at the rate of 1oz. to two gallons of clear water. Every portion of the leaves must be wetted on both sides. Later on the cuttings should be dipped in a similar solution before they are inserted.

Wintering Lobelia and Salvia (*G. B.*). The scarlet Lobelia (cardinalis or Queen Victoria) will in the milder districts stand the winter out of doors. In your locality, however, the safer plan will be to give the plants a certain amount of protection. They should keep perfectly well in a cold frame during the winter, provided the frame is protected from frost and plenty of air given whenever the state of the weather permitted. Your better plan will be, as soon as the blossoms are all over, to lift the plants and pot them in a mixture of loam, leaf-mould and sand. Do not pot them in very large masses or clumps, as they are more liable to decay during the winter than with single crowns or clumps of medium size. When first potted, the plants must for a time be well watered, but throughout the winter the soil should be kept moderately dry. The blue Salvia (S. patens) produces tuberous roots something after the manner of a Dahlia, and the plants may be treated in the same way, that is, by keeping them in boxes of dry soil throughout the winter and placing them out of reach of the frost. They might be safely wintered in a cold frame provided frost be excluded therefrom; indeed, under the same conditions as the Lobelia, except that the soil may be kept somewhat drier, they should winter well.

Cyclamen failing (*F. S.*).—We should say that the trouble with your Cyclamen arose, in the first instance, from drying them off too suddenly in the spring, and certainly the position given them since potting is as bad as can be. When plants have done flowering, they should be watered as before till the leaves begin to turn yellow, when very little water must be given—just enough, in fact, to prevent the soil from becoming dust dry. They are best at that time in a cold frame. After a time the young leaves will show signs of starting, and as soon as these make their appearance, the corms should be shaken quite clear of the old soil and repotted in a mixture of two-thirds turfy loam, one-third leaf-mould, a liberal sprinkling of lime rubble, broken small, and silver sand.

Propagating double tuberous Begonias (*J. D.*). Double Begonias cannot be increased in a rapid manner, and this circumstance accounts for the best kinds being comparatively expensive. If your plants have a few stubby shoots at the base and springing directly from the bulb, they may at once be taken off and inserted singly into small pots of very sandy compost. They must then be placed in a propagating-case where there is a gentle bottom-heat, and care should be taken not to over-water, nor must the case be kept too close. In this way some of them will in all probability root before the winter, while in others the thickened basal portion of the cutting will remain fresh, and if placed under favourable conditions in a gentle heat, in spring will produce roots and start into growth. During winter these cuttings must be kept in a snug structure, and in a temperature of 50° to 60°. The soil must also be kept slightly moist, as if allowed to get very dry, in which state good-sized tubers take no harm, these delicate pieces will in all probability perish. Begonias may also be propagated by cuttings of the young shoots in spring. To obtain these, the tubers should be started into growth, and when the young shoots are from 2 inches to 3 inches in length they make the best of cuttings. As with Dahlias, these young shoots should be taken off just at their base. They root much more readily than those taken in the autumn; but, at the same time, the tubers have not the recuperative power of the Dahlias, and are greatly weakened by the removal of the shoots. They will not produce crop after crop of cuttings; indeed, if the first batch is removed, the second growth will be much weaker than the first. Should two or three, or even more, shoots be pushed up from a tuber, a good plan in taking the cuttings is to allow one shoot to remain, in order to form the future plant. Cutting up the tubers is not to be recommended, unless they are old and irregular in shape with probably several points from which shoots will be produced.

ROSE GARDEN.

Climbing Roses for north wall (*Dolphin*).—Yes; W. A. Richardson will succeed admirably upon a north wall. Indeed, some of the finest-coloured blooms we have ever seen were cut from a plant growing on a north wall. Many of the beautiful Tea Roses, especially the thin sorts, such as Marie van Houtte, are a great success in such a position, providing, of course, strong plants are set out and the borders well prepared for them. Ramblers of most kinds would grow on such a wall, excepting those of the Crimson Rambler tribe. These we do not advise for walls of any aspect, for they much prefer a good open position; but the wichuraianas and many of the hardiest of the Teas and the Hybrid Teas do on such a wall. For an east wall you could grow almost any of the free-flowering kinds, such as Rêve d'Or, Bouquet d'Or, François Crousse, Climbing Caroline Testout, Tausendschön and Conrad F. Meyer. We have some of these growing



THE WINNING DISH OF APPLE HAMBLING'S SEEDLING, SHOWN BY THE EARL OF BESSBOROUGH AT THE RECENT EXHIBITION OF BRITISH-GROWN FRUIT.

THE GREENHOUSE

PLUMBAGOES IN POTS.

I HAVE never seen Plumbagoes flower better than during the present season. As roof and pillar plants in greenhouses, conservatories and glass porches they have been charming, especially the blue-flowered species, P. capensis. The shade of blue of this flower is most pleasing; it is neither too dense nor too light, and seems to rest the eyes. I have grown the plants under the roof of a large greenhouse for many years, treating them very similarly to Vines, and always reaped a rich harvest of blossom. To grow the plants really well as climbers, they must be planted in borders or large tubs. All possessors of greenhouses are not in a position to provide such ample rooting space; but they may, nevertheless, succeed in growing reasonably good plants in quite small flower-pots.

The present is a very good time to take up plants from the flower garden or to procure them from the nurseryman. They should be placed at once in 6½-inch pots in a compost of fibrous loam and leaf-soil in equal proportions. To a bushel of the above add a 6-inch potful of coarse sand and an equal quantity of old mortar rubble, and mix all together thoroughly. Plants that have been cut back rather severely and possess plenty of roots are the most suitable. Make the soil firm around the roots and give a watering to settle it. Prune back all young shoots to within 9 inches of their base at once. Do not water regularly, but just often enough to prevent the roots and branches becoming very dry and shrivelled. Keep the plants cool, but safe from frost. In February prune back the remaining portion of each shoot to within 2 inches of its base, give water and a warmer temperature. In a short time new shoots will appear, and, if judiciously fed, the plants will flower freely in the summer. B.

upon such a wall and flourishing admirably, the soil being a good stiff clay. On such a wall many of the Hybrid Perpetual Roses would do well. Sorts such as Hugh Dickson, Ulrich Brunner, Frau Karl Druschki, and Hybrid Teas such as J. B. Clark, Johanna Sebus, Mrs. Stewart Clark, Avoca and Lady Ursula are excellent, and would soon cover a height of 5 feet to 6 feet. These are ofttimes preferable to the very rampant growers, and they would flower rather more freely.

Exhibition Roses as maidens (*G. S.*).—There are several Roses that yield better blooms on the yearling or maiden plant than they do as cut-backs, although this must not be too rigorously applied. For instance, it is generally assumed that Mildred Grant is such a Rose; but recently we saw eight year old plants of this variety in the Rev. F. R. Burnside's garden at Great Stambridge. Generally speaking, a few of each of the following should be budded annually, although some could be retained as cut-backs: A. K. Williams, Alice Lindsell, Bessie Brown, Florence Pemberton, Horace Vernet, Marquise Litta, Mildred Grant, Mrs. T. Roosevelt, Mrs. W. J. Grant, William Shean, Charles J. Grahame, Comte de Raimbaud, Duchess of Bedford, Duchess of Portland, Duke of Wellington, Etienne Levet, E. Y. Teas, Fisher Holmes, Gustave Piganeau, Helen Keller, John Cuff, Lady Mary Fitzwilliam, Marchioness of Londonderry, Mrs. D. McKee, Papa Lambert, Pride of Waltham, Princesse Mertchersky, Queen of Spain, Ulster, Victor Hugo, White Lady and Xavier Olibo.

Rose Purity (*Clare*).—We should say your plant is correctly named, but it is characteristic of the variety to be very shy in blooming. It should be treated as a pillar or climber and left unpruned for a year or two. The lateral growths should merely be tipped; then, we think, you will succeed in blooming the Rose. It is really a hybrid of the Bourbons, and not a Hybrid Tea. It s a lovely button-hole Rose, and well worth trying to flower it.

TREES AND SHRUBS.

Almond trees not flowering (*Edinburgh*). The reason your Almonds do not flower is that by pruning in autumn all the flowering wood is cut away. Any pruning which may be necessary should be done in spring, as soon as the flowers are over, but very little pruning is required as a rule, other than what is wanted to shape the trees. Do not touch your trees this autumn, and you will probably obtain plenty of flowers next spring. The tree with small growth, which you mention, is not likely to be a different species from the more vigorous trees usually met with, though it may be one of the several varieties of the common Almond. The position you mention ought to suit the trees well.

Pruning a Wistaria (*N. C.*).—You may prune your Wistaria any time after the leaves have fallen. Thin the branches out well and shorten this year's shoots to within a few eyes of the base. Towards the end of June next year go over the specimen and spur back the young wood, repeating the operation in winter on shoots which may have been found at a later date. The best plan with Wistarias on walls is to try to get them to form spurry, stunted growths, for it is from such wood that the greatest number of inflorescences are formed, and a bush which is well covered with such spurs rarely fails to bloom well.

Hydrangeas (*J. H. P. D.*).—From the appearance of the Hydrangea leaves sent for examination we should imagine that the plants are in an unsatisfactory state of health and too weak to produce flowers satisfactorily. That being the case, you will have no flowers next year, for the wood ought to be formed now for next season's flowers. Your best plan would be to start again with some good strong cuttings, and give the young plants liberal treatment both in the matter of rich compost and after-feeding. During summer the plants must be stood out of doors in full sun if they are for indoor work the following year. If they are to be planted out of doors, give them as sunny a position as possible. If you keep your old plants, thin them out well and repot into really good soil.

FRUIT GARDEN.

How to propagate slips of the Grape Vine (*H. T. W.*).—Get a well-ripened branch of this year's growth and insert 5 inches of the lower part of it into a 5-inch pot filled with ordinary turfy loam. A pot of this size will hold five cuttings. Insert them round the pot close to its side and press the soil to the cuttings as firmly as possible. The pots must have good drainage. The cuttings may be placed in the pots early in October, or as soon as the wood is quite ripe. Let them be placed on the back shelf of a cold greenhouse where it is not too dry. They will need very little attention during the winter, but the soil must not be allowed to become dust dry at any time. As soon as the cuttings show signs of growth in spring, each cutting should be potted into the same sort of soil in a small pot by itself, and place in the warmest part of the house to encourage free growth.

The colour of Apple Cox's Orange Pippin (*W. R. W.*).—You should now pick the fruits and place them in a cool, dark room to finish ripening, when the yellow colour you speak of will appear in due time. You cannot force Nature in this matter by artificial means. The room the Apples are kept in should be on the moist side rather than the dry. Place them on soft paper, not straw, or they will taste of it.

Pear shoots for inspection (*W. F. J.*).—The appearance of the shoots suggests that they are attacked by the Pear scab fungus (Fusicladium pyrinum). This attacks the leaves and shoots and causes the fruits to crack. All affected shoots should be cut out, and to prevent the wounds forming points at which other diseases may gain entrance into the plant, they should be painted over with lead paint or gas-tar. The prunings should be burned, as the disease is very infectious to other trees.

KITCHEN GARDEN.

Mushrooms in boxes (*P. A. R.*).—Now is a good time to prepare manure for growing Mushrooms in boxes, or in beds out of doors and indoors. Collect the manure every morning from corn-fed horses, picking up with it an equal quantity of the short, littery straw of the manure, and mix with it. Spread the manure thinly, say 4 inches deep, on the floor of an open shed or some other place where it is safe from rain. Add to the quantity daily, turning it over in the shed every other day for a fortnight, when it should be put up in a heap to ferment. Eight days afterwards open out the heap to let out rank steam, then put up again the same for another eight days, and open out again at the end of that time. It will then be ready to put into the boxes; these should be at least 9 inches deep with holes at the bottom. Fill them up to the rim, and tread down the manure as hard as you can tread it. Thrust a stick into the manure to test its heat, and if after five days the stick does not feel very hot to the touch, the spawn may be inserted; but should the stick feel fairly hot, you must wait a few days before inserting the spawn. Keep the boxes in the open shed where it is dry until spawning is finished. The manure, before it is placed in the boxes, should not be too wet or too dry. Spawning: You can get the best possible spawn from horticultural sundriesmen or seed merchants advertising in The Garden. It is sold in bricks. We will suppose your boxes are, say, 2 feet by 1 foot, and 9 inches deep. The way to put the spawn in the manure is as follows: Make small holes 6 inches apart over the surface of the manure in the boxes, then break the cakes of spawn into small pieces the size of a small hen's egg. Insert these lumps of spawn in the holes, burying them a little below the surface of the manure. Place also a little of the small or dusty particles of the spawn with the lumps, then cover all over with a thin coating of the manure, ramming it hard down. The boxes are then ready for soiling. The best soil to cover the surface of the boxes is turfy loam passed through a three-quarter inch sieve. Place it on the boxes half an inch deep, and bat it down as hard as possible with the back of a bright spade, dipping the spade in water while doing the work in order to seal up the surface soil to retain the heat. The boxes may now be taken into the cellar and placed close together, covering them over with a mat and some strawy litter over that to the depth of 6 inches. Uncover in a month or five weeks' time, and if the surface of the soil is dry and cracking, give them a sprinkling of tepid water (milk warm) and cover over again. In another fortnight you should have some Mushrooms, and afterwards, from time to time from the same boxes, a succession of crops for about six weeks. If you want a continuous supply, plant more boxes to follow the first lot.

MISCELLANEOUS.

A substitute for farmyard manure (*D. L.*).—We are confident that you could not do better than use Wakeley's Hop Manure. It is an admirable substitute for horse-manure, and should only be applied in light dressings in accordance with instructions supplied with the manure. For Roses and fruit trees it is invaluable, and used by many of the leading growers. It may also be applied to flower-borders and in the kitchen garden. If used in potting composts, as you contemplate doing, it must only be given in very light quantities. A 6-inch potful would be sufficient to mix with a barrow-load of soil.

Dressing ground with gas-lime (*Pepper*).—The proper proportion of gas-lime to apply to a given area of land depends on whether the land be light and porous or whether it be of a clayey nature. Then something has to be considered in relation to the condition of the gas-lime itself. When quite fresh it must be used more sparingly than that which has been lying in a heap for some time exposed to the atmosphere. A pint and a-half should be an ample dressing for a square yard of ground which is light and porous, while a quart will not be too much for stiff clay land. Spread the lime evenly and let it be exposed to the air for four weeks. After a couple of weeks' exposure, break it up fine with a coarse rake, then at the end of the month dig it well in. No harm to crops should result if they are sown or planted in the spring.

Caterpillars (*A. F.*). — The caterpillars you send are called "surface grubs." They are extremely destructive to many plants, and the best method of getting rid of them is hand picking and the destruction of the shiny brown chrysalides found in the soil. The grey one, with the pale line edged with a darker colour along the back and four black spots on each segment, is the Turnip moth. It hibernates in the ground when full grown, and in June produces a yellowish or brownish grey moth with the fore wings speckled with darker markings. There are dark spots, edged with black, and some dark brown zigzag lines on the wings. The other is the heart and dart moth caterpillar. This moth also appears in June, and is of a brown colour, more or less tinged with reddish grey, and having scarcely any transverse lines on the wings, but two fairly distinct spots somewhat heart and dart shaped respectively. Both are extremely common, and measure about 1⅛ inches across the expanded wings.

Path over drain pipes (*A. C. A.*). — When making the path over your drain, you would do well to

place stones or bricks along each side of the pipes, to be a little higher than the pipes; then bridge them over with other stones or bricks. There will then be no fear of breaking the pipes when ramming or rolling the path. It would not hurt your Roses to plant them in a temporary position this autumn and remove them to their permanent place next autumn.

Neapolitan Violets (*G. J.*).—If you have no plants at the present time, your only hope of obtaining flowers in plenty in February next would be to purchase large flowering plants at once and pot and frame them. The only other way would be to secure well-rooted runners in March or early April, plant them 1 foot asunder in well-prepared ground, and lift and transfer them to a frame having a sunny aspect during the latter part of September. The plants in the open require a slightly sheltered spot where uniformly cool and moist conditions prevail, and to be kept free from runner shoots during the season of growth. By these means the energies of the plants are concentrated to the central crown, which is that responsible for a good flowering. Any hardy plant nurseryman would supply you with the plants. Cuttings made of the superfluous runner growth in October or November usually make nice plants for putting out in spring.

Explanation of terms (*A. Hencke, Moscow*).—The terms "free grower" and "free cropper" are employed respectively to plants producing either an abundance of growth or fruits, the "crop" being the produce in fruit, the prefix "free" signifying abundance or plenty. Heavy crops, good crops and free crops are nearly synonymous terms. "Too short in the stem," as applied to a Daffodil, would refer to the actual length of the stem from the ground-level to its highest point, such a phrase being employed comparatively with other sorts of taller growth. The term "Moutan" is the name by which the "Tree" or "Moutan" Pæony is known in China and Japan, or, for that matter, in this and other countries too. Potatoes in England are divided into three groups or sections, for convenience of reference, thus, "early," "midseason" and "late" or "maincrops," the early and midseason sorts being those which afford first and second early supplies, while the "late" or "maincrop" varieties are those harvested later, better-keeping sorts, which are dug and stored away for winter use. The Endive which we presume you are referring to when you speak of Broad-leaved Italian is Cichorium Endivia, the Broad-leaved Endives being known to the French gardeners as "Scaroles," or "Escaroles." The true Spinach is Spinacia oleracea; the New Zealand Spinach is Tetragonia expansa. "Corn Salad" or "Lamb's Lettuce" is Valerianella olitoria. "Flake" is a term applied to a flower whose petals or parts are more than one shade of colour. The petal of a Carnation, for example, may be "flaked," a term understood as the equivalent of a broad stripe—crimson, purple or scarlet—and is expected to be regular of outline. In the Sweet Pea the same term has not yet reached the high ideal of the florist, and it is used more or less indiscriminately to denote a flower whose colour markings are irregular.

Names of plants.—*K. Hall.*—Hibiscus syriacus albus.——*E. Neighbour.*—1, Centranthus ruber; 2, Brachycome iberidifolia; 3, Teucrium fruticans; 4, Phillyræa angustifolia; 5, Pteris longifolia; and 6, Aspidium capense.

Names of fruit.—*John Warner.*—1, King of the Pippins; 2, Lord Suffield; 3, Dumelow's Seedling; 4, Lord Raglan.——*M. H.*—1, Bramley's Seedling; 2, Allington Pippin; 3, Newton Wonder; 4, Blue Pearmain.——*Newcastle.*—A fine fruit of Blenheim Orange.——*T. Dickie.*—1, Lane's Prince Albert; 2, Yorkshire Beauty; 3, Cellini Pippin; 4, Tibbett's Pearmain; 5, Hitchin; 6, Beauty of Kent; 7, Fearn's Pippin; and 8, Cox's Orange Pippin.——*D. Mc.*—1, Newton Wonder; 2, Tom Putt; 3, Cat's Head; 4, Lord Grosvenor; 5, Stamford Pippin; 6, Cowarne Queening; 7, Stubbard; and 8, Mank's Codlin.——*Miss Dean.*—1, Stamford Pippin; 2, Newton Wonder; 3, Cox's Orange Pippin; 4, Cat's Head; and 5, Bismarck.——*F. Ketley.*—1, Lord Suffield; 2, Dumelow's Seedling; 3, Tom Putt; 4, Fearn's Pippin; 5, King of the Pippins; 6, Emperor Alexander; 7, Lane's Prince Albert; 8, Worcester Pearmain; 9, Pennington's Seedling; 10, Margil; 11, rotten when received; 12, Durondeau; 13, Bergamotte Esperen; 14, Doyenné du Comice; and 15, Marie Guise.——*A. C., Banffshire.*—1, Belle Pontoise; 5, Newton Wonder; 2, Jolly Beggar; 4, Improved Keswick Codlin; 6, Melon Apple; 7, Curltail; 11, Nelson's Codlin; and 12, Golden Spire.——*D. E. Lane.*—A, Tower of Glamis; B, Belle Julie; C, Marie Louise; D, Rambour Franc; E, Hawthornden; F, King of the Pippins; and G, Striped Beefing.——*F. J.*—Pear Uvedale's St Germain.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

CYPRIPEDIUM LUCIFER.—A magnificent variety shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury. This was raised by crossing C. Niobe Westonbirt variety with C. Euryades; it resembles the former parent in many respects. The dorsal sepal is white, veined purple; petals broad, purplish brown hue. The pouch is rounded and tinged with mahogany brown.

Cypripedium Royal George.—Parentage: C. harrisianum superbum Underfell variety × C. Minos Youngii. A superb flower of fine shape and evenly balanced. The petals are dark mahogany brown above, greenish on the lower half; the pouch is rich deep brown. Shown by Messrs. Armstrong and Brown, Tunbridge Wells.

Odontioda Euterpe.—A very pretty hybrid with a brilliant orange scarlet perianth. Parentage: Cochlioda noetzliana × Odontoglossum Uro-Skinneri. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

AWARDS OF MERIT.

Dahlia Brentwood Yellow.—One of the large decorative class, whose flower-heads are carried erect on long stems. The colour is deep buttercup yellow, and the plant is said to be of moderate growth. From Mr. West, Brentwood.

Chrysanthemum Cranford Yellow.—A good variety for the market-grower and for decoration generally. The flower-heads are of rich yellow colour, the firm and crisp petals denoting good keeping properties, the stiff stem and proportionately stiff, short peduncle or "neck" also adding to its value. The petals are nearly horizontally disposed. From Mr. Roots, Cranford, Middlesex.

The foregoing were brought before the Orchid and floral committees of the Royal Horticultural Society on October 10, when the awards were made.

THE FLORA OF THE FALKLAND ISLANDS.

THE Falkland Islands, though interesting as constituting a portion of the British dominions, occupying an isolated position in the South Atlantic, are not what one might consider to be an ideal hunting-ground for the plant-collector. Though the climate is described as somewhat bleak, it is considered healthy, with an equable temperature of from 20° to 50° in winter, and 40° to 65° in summer. The inhabitants are chiefly British, and their occupations vary between sheep-farming, seafaring pursuits and kitchen garden culture. With islands overrun with sheep, as these now are, one would expect to find but little of the original vegetation remaining as found by Sir Joseph Hooker when he wrote his "Flora Antarctica" in 1847, or perhaps even to find any plants at all of horticultural interest; but in a paper "On the Flora of the Falkland Islands," by Mr. C. H. Wright, A.L.S., of the Kew Herbarium, recently published in the Journal of the Linnean Society, we find so many notes of interest that would appeal to others, besides the Fellows of the Society, into whose hands they would primarily, and by privilege, fall, that I venture to transcribe some that will probably be interesting to the wider circle of the readers of THE GARDEN.

In our younger days the Falkland Islands were probably known to us chiefly as the home of the Tussac Grass, Poa flabellata, and the Balsam Bog, Azorella cæspitosa. The former was introduced into this country for cultivation as a fodder plant, so far back as 1842, but it never actually succeeded, the only place where it became established being on the West Coast of Scotland. Of this Grass Mr. Wright says it was "very abundant throughout the islands in Hooker's time, now confined to small islets and enclosed areas. Cattle are very fond of its edible roots, hence its rapid extinction." Of the Balsam Bog, Sir Joseph Hooker described it as forming hillocks 2 feet to 4 feet high and 8 feet to 10 feet long, exuding a viscid white gum, becoming red on drying. One of these hillocks is shown in a special case in Museum No. 1 in the Royal Gardens, Kew. Mr. Wright says: "Upon bruising or cutting the hard exterior of this plant a rapid decay follows, and within about a year nothing but a heap of mould or fibres is left of a plant which took many years to attain its previous size." The plant belongs to the Umbelliferæ.

Commenting on the total absence of trees in the Falklands, Mr. Wright says the tallest-growing plant is Veronica elliptica, a shrub attaining a height of 7 feet. It delights to have its roots bathed by the sea water during spring tides, and its flowers, which appear in January and February, possess a delightful aroma. The white flowers of Draba funiculosa are said to be the earliest of the Falkland Islands, spring appearing in September and October. The white, pink, or mauve flowers of Oxalis enneaphylla, which appear from December to January, are sweet-scented, and a delicious and refreshing drink is made from the stalks. Rubus geoides bears its white flowers from November to January, and the succeeding fruits, which resemble Wineberries in appearance and are almost as large as Raspberries, have a delicious flavour. Gunnera magellanica is very abundant, bearing crimson flowers succeeded by brilliant scarlet berries. The plant is eaten by cattle. Myrtus Nummularia is also a common plant. "The edible fruit is a most delicate pink where exposed to the sun, but always white on the under side." It has a delicious aroma. Nassauria serpens is described as growing in the valleys among the shrubs of Chiliotrichum amelloideum, through the foliage of which they push their serpentine growths. "It has a most delicious scent, not unlike English Lavender. The flowers, which are produced from December to January, are usually white, but occasionally a pale mauve specimen occurs."

Baccharis magellanica, an abundant plant in the islands, has interesting associations with the islanders in consequence of its use in place of Holly or Mistletoe to decorate churches and houses at Christmas, when its exquisite silvery flowers are in perfection. Leuceria gossypina is known in the islands by the name of Vanilla Daisy, on account of its fragrant scent, resembling that of Vanilla. Primula farinosa var. magellanica, a plant common to the East and West Falklands, is described as having been found "about 40 years ago, growing to a height of 1½ feet to 2 feet with flowers in proportion, but since the introduction of sheep the species has dwindled in size. On a few outlying islands on which there are no sheep the plants still attain their original size. The hillsides are covered with these most fragrant white, or occasionally lavender-coloured, flowers during early summer (November)." Empetrum nigrum var. rubrum, with the peculiar vernacular name in the Falklands of "Diddle-dee," covers miles of country, it is said, as Heather does on English moorlands.

Referring to the fronds of Blechnum pennamarina and B. tabulare, it is stated that the first-named species often covers the ground for many yards, the fronds coming up ruddy in the spring and gradually changing to a dark glossy green; while in the last-named species the young fronds are bright red, quite covering the hills.

In conclusion, it is peculiar to note that Juncus pallidus has been found only once in the islands, "and that in a place close to Roy Cove Settlement, where machinery had been unpacked, which leads to the belief that seed had been introduced in the packing."

JOHN R. JACKSON.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ORNAMENTAL FRUITING SHRUBS.

It is usual, when planting shrubs, to regard them solely for their beauty in flower or leaf, yet those who are observant must be struck by the beauty of Cratægus Lelandii this autumn, as in the general run of gardens the crop of fruit is exceedingly great, and the colour is one of the most brilliant among ornamental fruits. Until a few days ago we had here, upon two fine specimens of Cratægus orientalis and C. tanacetifolia, an exceedingly fine crop of the large Cherry-like fruits so characteristic of these plants, while the ornamental Crabs have likewise been much in evidence with heavy crops of brilliant-coloured fruits, and visitors to the recent fruit show at Vincent Square could not have failed to note the high colour that generally prevailed on the hybrid Crab Dartmouth as shown on several stands.

Apart, therefore, from the floral aspect of plant beauty, trees and shrubs that provide a display of fruit have a distinct value in the garden during autumn and winter. Well-known examples occur among Rugosa Roses, the Sea Buckthorn, Arbutus Unedo, the latter one of the most beautiful of hardy evergreens, which attains its zenith in midwinter, when the opening flowers intermingle with the warty, ball-like, pendulous fruits. In this direction there is great decorative beauty in a good representative collection of Hollies, the yellow-berried variety being most acceptable, as it contrasts admirably with the general run of red-berried kinds. The Symphoricarpus, or Snowberry, gives quite a distinct type of fruit, and when seen in a mass it is difficult to conceive of a more excellent shrub for autumn effect. The Wayfaring Tree (Viburnum Lantana), the Spindle Tree (Euonymus europæus) and the common Privet, yielding, respectively, bright crimson, orange scarlet, and glossy black fruits, are representative types of woodland trees capable of high decorative effect when carefully grouped in positions that emphasise their distinct characters at this season. The genus Cotoneaster, as a whole, gives a large number of fruiting shrubs, frigida, Simonsii, pannosa, Franchettii and the newer applanata being among the best species to plant with this end in view. Berberis is also a heavy contributor. Vulgaris produces the showiest fruits among older kinds; but in the new species, Wilsonæ, is seen an ornamental fruiting shrub of high excellence. In growth it partakes of the character of B. Thunbergii, but produces heavy crops of high-coloured coral red fruit. Of this genus Darwinii and Aquifolium give fruit of a rich purple blue, a colour that occurs again in Gaultheria Shallon.

Among dwarf shrubs, the Pernettyas are most showy. One gets pink, white and crimson fruited varieties, so that when planted in quantity the display is particularly pleasing. Skimmias and Aucubas both provide crimson-coloured fruits, but in planting these it is well to ascertain the sexes and order them separately, as male and female flowers are borne upon separate plants; the female alone produces fruit. This also applies to the Sea Buckthorn. As a rule, one male plant to three of the fruit-bearing variety ensures perfect fertilisation, which is generally carried out by insect agency and by the wind. Among recent additions to evergreen shrubs, Viburnum rhytidophyllum carries fruits freely in autumn. These are dark red in colour, but it is not until the plant attains some size that one fully appreciates its decorative value in this direction. Many of the Honeysuckles (Lonicera), a large number of Pyrus, including the Mountain Ash, and several kinds of Sambucus produce conspicuous fruit. Of the last-named, S. racemosus bears fruits of the brightest scarlet colour.

The genus Rubus embraces a large number of fruiting species, and a few Vitis will mature coloured fruit. When planted under favourable conditions and in a good season, a plant of exceptional interest when it attains this perfection is Vitis heterophylla humulifolia, the fruit of which changes to a rich turquoise blue. In addition to the shrubs with highly-coloured fruits, there are many that bear fruits of a less ornamental character, such as the Bladder Senna (Colutea arborescens) and the Indian Bean (Catalpa bignonioides); the latter is bearing a remarkable crop of its long Bean-like pods this year. It is not without interest to note that the most brilliant fruit-bearing shrubs have rather uninteresting flowers, a fact that may explain the studied neglect they frequently receive at the hands of planters. On the other hand, as foliage subjects they equal anything in the garden, and, in conjunction with their fruiting propensities, their merits for shrubbery and woodland planting call for wider recognition than is accorded them at present. T. S.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

October 31.—Chrysanthemum Show at Brighton (two days). Bournemouth Autumn Show (two days).

November 1.—National Chrysanthemum Society's Show at Crystal Palace (three days). Kent County Chrysanthemum Show at Blackheath (two days). Bath Gardeners' Society's Chrysanthemum Show (two days). Isle of Thanet Show (two days). Bideford and District Show. Faversham Chrysanthemum Exhibition.

November 2.—Torquay Chrysanthemum Show.

November 3.—Hinckley and District Chrysanthemum Show (two days). Société Nationale d'Horticulture de France (Paris) Chrysanthemum and Fruit Exhibition (ten days).

November 4.—Société Française d'Horticulture de Londres Meeting. Wood Green Chrysanthemum Show.

Brighton and Sussex Horticultural Society.—The twenty-ninth annual Chrysanthemum show of this well-known society will be held in the Dome and Corn Exchange, Brighton, on October 31 and November 1. A good show is anticipated.

Variation in Elm.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. W. C. Worsdell drew attention to the variation which had occurred this year, both at Kew and at Cambridge, in the foliage of Ulmus glabra. At the base of many leaf-blades, from one to three extra small leaflets had developed on the petiole. These, when on the side of the leaf in which the blade is usually less well developed, appeared to be complementary growths, but in several of the leaves the blade was symmetrical. A second variation, of considerable frequency, was seen in the forking of the midribs of the leaves, sometimes to the base, so as to produce apparently two leaves at a node, sometimes less deeply. In some few cases also some of the leaves formed ascidia.

Dundee Horticultural Association.—From the report of the council of this association, together with the annual statement of the treasurer, just issued to the members, the Dundee Horticultural Association seems to maintain its position as one of the most successful of its kind, apart from those of Edinburgh and other very large places, which appeal to a much wider circle. The council report a successful year, with a good attendance at the meetings and excellent papers. The membership is eighty-four, and the treasurer's statement shows a balance in hand of £6 2s. 1d., this being rather more than last year. The trustees of the Technical College grant the use of a room for the library meetings free, and in other respects the association is most carefully managed. The syllabus for the new session is a varied and attractive one. Prizes are to be given for plans for laying out gardens and grounds.

General Bulb-growers' Society of Haarlem, Holland.—The following awards were made at the September meetings of the floral committee. First-class certificate: Pæony Dahlia President Fallières, a new variety obtained from seed, with bright orange scarlet flowers. Awards of merit: Canna P. Fougerat, with large bright scarlet flowers; C. Médérie Charot, with large light scarlet flowers, shaded orange; C. Nabert Neiss, a very floriferous variety with large bright orange flowers; C. Frau Professor Spitta, with large bright carmine rose flowers; C. Hohenzollern, a large-flowering variety with pure light yellow flowers; Pæony Dahlia Souvenir de Maasdijk, a new variety obtained from seed, with large flowers coloured nankeen yellow, shaded rose; Dahlia à Collarette Diadem, with carmine rose petals, the collar being white, feathered rose.

Edinburgh parks and gardens.—The Edinburgh public parks have been greatly improved of late years, and some further improvements are contemplated which, if carried out, would add greatly to the attractions of the city. It is proposed, for example, that the railings which at present divide the public gardens on the roof of the Waverley Market from the street should be taken down. It is purposed to carry out this improvement after the heating of the market has been carried through. A more ambitious and somewhat costly project is to make great changes on the Calton Hill, one of the most conspicuous features of the city, and one frequented by almost every visitor to Edinburgh. It is suggested that the approaches should be improved, gardens (including tea gardens) laid out and music provided. The accounts of the Town Council of Edinburgh for the year ending May 15 show that there was expended on public parks and gardens during the year the sum of upwards of £14,400, with upwards of £920 charged to capital, and that the income from pasturage in the parks, bowling green and golf course dues, &c., realised upwards of £2,630.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Autumn-sown Sweet Peas.—Though I read with interest both articles on autumn sowing in THE GARDEN of September 30, yet I noticed in each case an omission which rather surprised me, seeing that this is a widely-read paper and caters for gardens large or small. Among the many readers are doubtless Sweet Pea lovers who cannot spare greenhouse or frames for autumn-sown plants. The garden is often a small one, the little greenhouse is filled with Chrysanthemums now, and later with spring bulbs, and the frame is occupied by Violets. What is to be done? Mr. Stevenson holds out no hope; "A. B." no consolation. (*On dit* that "A. B.'s" notes referred to outdoor sowing; if so, the words "sound frames, boxes, pots and soil," &c., misled me.) It is a fault I often notice in writers on gardening that they offer counsels of perfection to those who have all means for all things, and forget to help the lame dog over the stile—I mean the many who must do their best with the slight means they have. For the sake of such I would draw attention to outdoor sowing in early autumn. It is scarcely too late now, for the soil is so warm that seed sown outside a week ago has already roots half an inch long. As a rule, I like to sow soon after September 21 to get at least 2 inches of growth by Christmas, and I have sown Sweet Peas outside now for years without a failure. This year, in spite of 2 feet of snow and 12° of frost on April 5, and rain on three days only between April 7 and June 17, they grew 8 feet high, flowered on May 25 and lasted till the end of July, though only watered once. Spring-sown plants were almost a failure. Those whose gardens are of light or medium texture and well drained may sow from, say, September 21 to October 14, with good hope of success. Prepare the soil early in the usual way, sow the seeds in rows or clumps about 2 inches apart, and thin to 1 foot in April when one can see what losses there are. As soon as the seedlings appear dust with soot and stretch black cotton over the rows. Winter frosts may kill the young plants to the ground, but most of them will break again in spring.—T. H. DIPNALL.

Killing weeds on lawns.—With regard to Prunella vulgaris on lawns (see page 485 of THE GARDEN for the 7th inst.), I have found both sulphate of ammonia and sulphate of iron effective cures. The latter is the cheapest, but I have found the former rather more effective than the iron sulphate, in addition to which the ammonia encourages the growth of grass after the weed has disappeared. In either case I sprinkle the powdered crystals fairly thickly over the patch of weed during dry summer weather. The result is a black patch till the grass has time to grow again, which for a time is not ornamental, but the result in the end is very satisfactory. I have also got rid of large patches of Buttercups in the same way. With this weed, too, the ammonia salt was the most satisfactory. Daisies are also killed with either salt, as is also a sort of hairy Chickweed with which I am much troubled. Dry weather is needed, and the drier the ground is the better will be the result.—C. E. F.

Rosa macrophylla as a rare plant.—With our present knowledge concerning the importation of plants from foreign countries, we should hardly expect to find a plant like Rosa macrophylla sent home in a Wardian case; yet at one time this species appears to have been introduced in this way, for I have before me an advertisement of a sale by auction which was dated to take place on June 11, 1844, when two hermetically-sealed glass-topped cases of plants selected by the official superintendent from the H. C. Botanical Gardens at Calcutta were to be sold. The plants in the advertisement are described as "East India Exotics of the most rare and choice kinds," and the sale was to be conducted by Messrs. Newton and Appleton at the Auction Mart, Bartholomew Lane. Sixty-five plants were offered, and to show of what a mixed character they were it may be mentioned that Rosa macrophylla, R. lævigata (R. sinica), Tecoma grandiflora and T. radicans had as associates several Passifloras, two Ixoras, a Nutmeg, two Custard Apples, one Lagerstrœmia Flos-Reginæ (L. Reginæ), two Abutilons, several Mangoes, two Pimentoes, a Poinsettia, Beaumontia grandiflora, &c. Unfortunately, the prices realised at the sale were not inserted on the advertisement sheet, otherwise it would have formed a very interesting record.—W.

Crocus speciosus in Scotland.—This fine Crocus, popularly called the Blue Crocus, has again bloomed in the South of Scotland in September, about the middle of the month, and its opening has been welcomed by those who grow it. The flowers are large and handsome, of a fine blue, with deep veinings, which add much to their beauty. The form Aitchisonii has larger and lighter-coloured flowers, and is a variety which meets with growing favour; but the white one,

C. speciosus albus, is not so enduring in the garden, and is high in price still. C. speciosus is lovely in the grass or in clumps in the rock garden or border. —S. Arnott.

Rose Hector Leuilliot.—*A propos* of the note in your Rose Number as to Roses that did well this tropical summer, I may mention that a plant of Hector Leuilliot that I had had over ten years flowered splendidly and gave me some wonderfully coloured blooms. To anyone fond of coppery shades it is well worth experimenting with, even though it is ten years before it flowers properly. My plant was pegged down. *A propos* of sports, I have a plant of Mavourneen that for years I could not get to bloom properly under ordinary treatment; but by allowing it to go its own way last year, I find that it is evidently a climbing sport, as it throws up 6-feet to 7-feet growths and then shoots again. This year I had about fifty good blooms on the plant.—C. Lemesle Adams.

Uncommon trees and shrubs in fruit at Holland House. — Holland House, the town residence of Mary Countess of Ilchester, is well known for the possession of the most notable and extensive collection of trees and shrubs in London, some of them being rare or uncommon, while the number is limited chiefly by the exigency of climate. The warm summer has given rise to, or induced a state of, fruitfulness not often seen in the latitude of London. One of the most interesting shrubs in fruit is Paliurus aculeatus, or Christ's Thorn. The green fruits are buckler-shaped and attached by the middle; indeed, the shape is so peculiar that the fruits may be described as resembling two hats closely united by their brims, with the crowns outward. The small yellow flowers are being produced contemporaneously with the fruits. The slender and graceful leafy twigs have two spines at the base of each leaf, one being straight and the other curved downwards or hooked, and furnishing speculation as to its object. Scarcely less interesting are the panicles of large, triangular, bladdery fruits on Kœlreuteria paniculata. I have seen this fruiting in Paris, but the hot summer has placed us on a similar footing with the French capital. Earlier in the season the yellow flowers were set off by the elegantly-cut foliage. The warm summer was also responsible for the production of hermaphrodite flowers on the hardy Orange (Ægle sepiaria), often named Citrus trifoliata, and these have been followed by peculiarly wrinkled, downy fruits. The fruiting of Pavia macrostachya is also a rare occurrence. It is the latest of the Pavias to bloom, and the long spikes of white flowers, with much protruded stamens, are very graceful when shrubs in bloom are relatively scarce. The large red fruits and orange seeds of Euonymus latifolius are very conspicuous at the present time. The Indian Bean (Catalpa bignonioides) was never so full of its long, rod-like beans, and the pods have never been finer. A much scarcer tree is Catalpa Kæmpferi, and that is also fruiting finely. It is a more recent introduction from Japan. This note could be greatly extended, for the fine collection of Thorns (Cratægus) are laden with brightly-coloured fruits in various shades of colour. There are many patriarchal trees on the estate, but large numbers of flowering and fruiting ornamental trees and shrubs have been added to the collection more recently, and they have thriven weil under the care of Mr. Charles Dixon, the gardener.—J. F.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

THE EARLY VINERY.—The pruning of all Vines to be started in December should be done now. If the Vines are very old and have been hard forced for a number of years, it will be advisable not to prune the wood too hard back. At least three or four prominent buds should be left on each spur, and where there is room to lay in young, vigorous shoots, this should be done, as by this means a better and more even crop can be ensured. After pruning the Vines, the house must be thoroughly cleansed with strong soapy water. If mealy bug has been troublesome, every part of the structure must be well washed. Afterwards the trellis should be painted with paraffin, paying particular attention to any holes where the insects may be secreted for the winter. When the house has been well cleansed, the Vines must be cleared of all loose bark and washed two or three times with a strong mixture of soft soap and sulphur. Some of the surface soil must be removed from the border to make room for a top-dressing of fresh loam, lime rubble, crushed bones, and Le Fruitier. Let the house be thrown wide open till the time arrives for starting the Vines into growth.

Early Fig Trees in Pots.—Some of the earliest trees may now be selected for starting into growth. The most suitable trees for this purpose are those which are well furnished with well-ripened wood of moderate strength. The trees must also have been subjected to early forcing before. Little pruning will be required, except to remove weakly growth or that which is too strong. Thoroughly wash the trees with a solution of soft soap and sulphur, but be careful not to damage the young fruits. For the first month after the trees have been placed indoors, no artificial heat will be required, unless the weather is very cold. When the trees are just bursting into growth, the pots should be plunged in a moderately warm hot-bed. This must be thoroughly prepared and cleansed of all rank gases before placing it indoors. The atmospheric temperature can then be increased a little. Watering must be carefully done till growth is active, especially to those trees which have been repotted.

Strawberries in Pots.—The season has been favourable for maturing the crowns. But it is possible after such a long, dry season that some of the plants may throw up their flower-spikes before they are placed indoors. In this case the flowers should be removed and the plants placed by themselves to be forced with the latest batches. Keep runners and side growths removed, and move the pots to prevent the roots entering the ground. Now that the pots are full of roots, the plants will benefit by an occasional watering with diluted liquid manure. If mildew appears on the leaves, syringe the whole of the plants with a mildew specific. Before there is danger of hard frost, the plants should be removed to their winter quarters, plunging the pots up to their rims in ashes. All fruit trees in pots should be treated in like manner, except that dry Bracken may be used in which to plunge them.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Planting Roses.—The season has now arrived when the planting of Roses may be undertaken. Although this may be successfully done any time when weather permits between the end of October and the end of February, the best time to plant is from this date to the end of November; in fact, as soon as the nurserymen consider it safe to lift the plants. I do not advocate the purchase of Roses from a late or cold district in preference to those from milder counties. The selection of varieties suitable to the climate is of much more importance than the source of their origin. Roses require a rich deep loam in which to grow, and where this is present, all that is required is to trench the ground, adding at the same time a liberal supply of farmyard manure, but not in such a way that the fresh manure will come in direct contact with the roots when the planting is being done. In planting Roses that are budded on the Briar stock, the point of union should be about 2 inches under the surface. This is especially necessary with tender varieties that may get cut down to the ground by frost, when fresh young shoots will be produced from the ground-level. Each plant should be examined before planting and any sucker-like growths proceeding from the stock removed, also shorten large roots that have few fibres attached.

Rose Cuttings.—Many of the stronger-growing varieties of China, Polyantha and wichuraiana Roses do well for massing in beds if grown on their own roots from cuttings, and for this purpose half-ripened shoots taken at this season and placed in a cold frame will root readily. When planting is completed, a mulching of light manure may be given, as well as a few Spruce branches placed throughout the beds as a protection from frost.

Cleaning.—Falling leaves will now require almost daily attention to keep things tidy. If many deciduous trees are in the vicinity of the flower garden, leaves will collect rapidly on the grass and by the sides of the Boxwood, and if allowed to lie long will cause damage besides being unsightly.

Lawns will now have had their final mowing for the season, but will still require sweeping and rolling if wormcasts are troublesome. Where the grass is in a poor and worn-out condition, a good dressing of basic slag may be applied before winter sets in. This will improve the appearance of the sward next season. A dressing of sea sand improves the quality of the turf on bowling greens, and powdered clay applied annually to cricket pitches where the staple soil is a light loam gives that perfection of surface so much admired on many of the Southern cricket grounds. Stimulants must also be applied frequently where constant mowing is practised.

Sweet Peas.—It is now generally admitted that to grow Sweet Peas to perfection autumn sowing must be adopted. The present is a good time for doing this. They may be sown either singly in 3-inch pots or five or six seeds in a 6-inch pot. Any good garden soil may be used, or a mixture of leaf-mould, loam and sand, with a sprinkling of lime added, unless it is already present in the soil. Place the pots in cold frames or in a cool greenhouse to germinate, and protect from hard frosts and vermin. Germination will be more uniform if the seeds are soaked in water for twelve hours before sowing. Thomas Wilson.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

TREES AND SHRUBS.

THE FORCING OF HARDY SHRUBS.

THERE are many hardy shrubs that readily force into bloom during the first three months of the year, and for giving a display of flowers for the conservatory they are most valuable, especially where tall-growing subjects are required. However, to obtain the best results, it is a process in which the greatest care must be exercised, having to be conducted when the days are short and the outside temperatures most variable. A great variety of shrubs suitable for forcing can be purchased cheaply; but to secure plants well set with buds it is advisable to place orders with nurserymen early in the autumn. When once a stock is obtained, it is more satisfactory and economical to grow the plants one's self, providing ground is available in which to plant them, as the majority of shrubs require at least a season's rest after being forced. Towards the end of October the plants to be forced should be lifted, selecting those well set with flower-buds; pot them into a compost consisting of two parts rich, sandy loam to one part of leaf-soil, with a small proportion of well-decayed manure added. The first batch may be brought into heat early in December, selecting those plants which bloom earliest outside, as shrubs which naturally flower late outside generally give poor results when forced too early. A temperature ranging from 50° to 55° is quite high enough to commence; as the buds swell, the temperature may be increased to 60° or 65°. Keep the house close and moist, and on bright days the plants should be syringed overhead with tepid water. The ideal conditions for forcing shrubs are those of early vineries and Peach-houses. The following shrubs are most suitable for forcing:

Acer.—The delicate tints of foliage of A. palmatum varieties and A. Negundo variegata are very ornamental when arranged with flowering plants.



A FORCED PLANT OF WISTARIA CHINENSIS.

Cytisus.—These are most effective as standards; they are obtained by grafting on the Laburnum. C. albus, C. præcox and C. scoparius andreanus force readily into bloom during February.

Deutzia gracilis.—This plant has been used for forcing for many years, and for small conservatories and house decoration there are few subjects to equal it. Plants can be grown in the same pots for several years, providing they are supplied regularly with manure-water.

Forsythia suspensa readily forces into flower early in January. The bright yellow blossoms are borne on graceful shoots. Large specimens of this species are very effective.

Kerria japonica flore pleno.—The double orange yellow flowers of this well-known shrub are very bright in midwinter.

Prunus.—Several species and varieties are very decorative when forced. They are obtainable either in bush or standard form. P. cerasifera atropurpurea (syn. P. Pissardii) comes into bloom very early. After the flowers have faded, the rich reddish purple leaves are very ornamental. Quite small plants of P. triloba flore pleno and P. japonica flore pleno flower freely. P. persica flore roseo pleno (double Peach), P. Pseudo-cerasus and P. serrulata are most effective when treated as standards or half-standards.

Pyrus floribunda is a very desirable plant; the rose-coloured flowers are produced on long, slender shoots. P. spectabilis and P. Scheideckeri bear umbels of large semi-double flowers.

Rhododendron.—The deciduous Rhododendrons, better known as Azaleas, are imported from the Continent in large numbers, both in bush and standard form. The brilliant-coloured flowers of R. sinense (syn. Azalea mollis) and R. flavum (syn. Azalea pontica) render them most valuable for decorative purposes from Christmas onwards. The variety Anthony Koster, with rich golden yellow flowers, is one of the best; a point also in its favour is that the flowers remain in a fresh condition on the plants for a much longer period than is the case with most of these Azaleas. The evergreen Rhododendrons will not respond to the hard forcing of the deciduous section; one exception, however, is R. præcox, which naturally blooms early outside. Others valuable for forcing are Cunningham's White, fastuosum flore pleno, Rosa Mundi and Pink Pearl. Rhododendrons should be potted in a compost of equal parts peat, leaf-soil and light, sandy loam.

Spiræa.—The small white flowers of S. arguta, S. prunifolia and S. van Houttei are produced abundantly in clusters along the slender shoots.

Wistaria chinensis.—Few subjects are more valuable in the conservatory than a well-flowered plant of Wistaria; the long, drooping racemes of lilac-coloured flowers give a very pleasing effect, especially when arranged with Ferns and other foliage plants. Providing attention is given to watering and the shortening back of the long shoots, the plants may be grown in the same pot for several years with good results. The plant illustrated was grown as a dwarf standard in a 9-inch pot, the flowers remaining on the plant between five and six weeks. W. T.

THE ROSE GARDEN.

THE EARLY PLANTING OF ROSES.

PROBABLY few points in Rose culture are more unanimously agreed upon than the benefits of early planting. Let it be done as soon as the plants can be lifted, even if not quite so ripe as they would be a little later on. The object is to get the roots in while the ground is still fairly warm and conducive to the formation of fresh roots. We all know how very quickly these are formed when a plant is lifted and the roots laid in soil for a few days, and this hint from Nature might well be followed more than is generally is. By getting the plants in early new roots are made, and these help the bushes to pass through the winter, because sufficient moisture can be supplied to counteract the drying from frost and wind. I have lifted and planted in September; but that was in the case of plants growing upon the Manetti stock, which is much earlier in ripening than the Briar, upon which the majority of Roses are now worked. October is my favourite month. There need be little fear of shrivelling, even if the plants are still carrying several leaves. Let these be removed, and most of the strain in regard to sap absorption is also taken away.

This early lifting and planting has a great tendency towards more mature ripening, and a check in this direction commends itself to me more than that from a sharp frost while the plants are still in growth. At least, such has been my experience. Once we lifted some plants extra early for importation; they were in full leaf and would have shrivelled very much. In this case, having a few days to spare, the plants were buried in soil for a time. When taken out it was surprising how well the leaves fell off and how sound and plump the wood remained. It is worth trying again and then planting early. At all events, the Rose-beds may be got ready, for there are very few weeks before we must be busy in transplanting. Unless I could plant my Roses early, I would much prefer waiting until spring, for I am no believer in winter planting. A. P.

ROSES IN A DUMFRIESSHIRE GARDEN.

THE affection for the Rose is as widespread in Scotland as anywhere, and there are many Scottish gardens where it is cultivated in ever-increasing numbers and with growing success. In Dumfriesshire there are many ardent lovers of the Rose, and an opportunity presented itself the other day of visiting one of their gardens, situated in a lovely valley among the hills, but not by any means an easy place for cultivating many flowers. A bog

behind the garden and the situation in a valley, although not at its lowest level, cause the frosts to be very severe and early. Then the soil is not what would be considered an ideal one for the Queen of Flowers, it being not only light, but full of stones, both large and small. Yet most of the hardier Roses, such as the Hybrid Perpetuals, the Hybrid Teas, the Dwarf and Climbing Polyanthas, the wichuraianas and many of the species flourish well and flower for a long time.

When I visited the garden on October 12, I expected little in the way of Roses in bloom, yet there were a good many in flower. One of the prettiest sights was a garden of Roses on either side of a broad grass path, the path sloping gently towards the house and a flight of steps leading to the lawn adding to the effect. The Roses are screened from the rest of the garden by high fences covered with climbing Roses. On one side the fence is clad with a white Ayrshire, which in its season is covered with thousands of flowers. It is not so satisfactory as the Roses on the other side, however, these being mainly varieties of Rosa wichuraiana, which are delightful in their time, and give a proportion of flowers later in the season. The Ayrshire appears to rob the soil too much for the welfare of the smaller Roses beneath. The garden is largely composed of Dwarf Polyanthas, with Chinas behind and Fellenberg at the back. Even at the late date of my visit these were in full flower and giving many hundreds of bright blooms. The Dwarf Polyanthas include a good representation of the best of the class, and the Chinas comprise a similar choice, apparently all doing well in this position.

In the small Rose garden at the side of the house, which was originally a farmhouse garden, there are beds of dwarf Roses, the finest of all being a good bed of Mrs. W. Cutbush, which cannot be surpassed in its way for such a place. The neat dwarf plants were covered with perfect little flowers of the delightful pink colour so much appreciated in this Rose. It was a lovely sight at this season of the year. Other Polyanthas and Chinas were also in flower, but Mrs. Cutbush cast even Aschenbrödel, Cecile Brunner, Mignonette, Canarienvogel and the others in the shade. No more delightful Rose of its class exists in this garden.

All through the remainder of the garden, to which a large field has been devoted, Roses abound in almost every imaginable kind. There is, for example, a bed of little Scotch Roses, these doing well here. Quite a large collection of varieties and hybrids of R. rugosa are cultivated, but the dry season has robbed these of much of their beauty, rust having been very prevalent. They comprise, among others, such varieties as Conrad F. Meyer, Blanc Double de Courbet, Mme. Georges Bruant and Calocarpa.

Hybrid Tea and Hybrid Perpetual Roses abound, and are grown in the freest manner against fences and walls and in the borders. They are too numerous to detail now, but it is amazing to see the vigorous, healthy growths they have made in such a soil and in a dry season such as this.

The wichuraianas and other climbing Roses have already been mentioned, and the garden is especially rich in these, practically all the best of the varieties being represented. On pillar, fence and over bushes they are brilliant and beautiful when in bloom, and give an astonishing number of flowers here and in other parts of the county. Tausendschön is a special favourite. There is also a large collection of the Rose species. Rosa rubrifolia or ferruginea is a great favourite, and has fruited extremely well this season. Lucida is also very fine, the double one being grown in some quantity and producing a beautiful autumn effect with its leaf and stem colouring. R. microphylla also does well, and has produced its singular fruit very freely. R. Moyesii is possibly too new to allow me to speak of its behaviour with any confidence, but it is admired greatly and looks as if it would thrive. R. sericea pteracantha was giving plenty of its wonderfully-coloured growths with the large conspicuous spines. R. macrophylla is also grown here. R. hispida, R. nutkana, R. Pissardii and several others attest the eclectic tastes of the owners of this Scottish garden, which gives many object-lessons of what can be done under apparently uncongenial conditions.

The Roses do not exhaust by any means the treasures of this garden, which is exceptionally rich in shrubs and hardy flowers as well. It enjoys, however, the personal care of its owners, whose dislike of publicity forbids any further disclosure of this charming garden of the Borderland of Scotland.

S. Arnott.

A BEAUTIFUL NEW HYBRID TEA ROSE.

(Souvenir de Gustave Prat.)

I have been particularly pleased at the behaviour of this beautiful Rose throughout the hot weather, and feel certain it is a sort destined to become a favourite. I should say the parentage is the same as that of Mme. Pernet-Ducher and Gustave Regis, for the novelty is a sort of blending of the two in the flower, but the growth is more like Mme. Pernet-Ducher. What pleases me is the beautiful erect trusses, each one standing up boldly, idealic of a good bedder. With me the colouring is a pale golden yellow in the centre, paling to sulphur white on the outer petals, making a striking combination.

P.

GUNNERSBURY HOUSE GARDEN.

Among the many beautiful private gardens that are to be found in this country, that at Gunnersbury House, Acton, one of the seats of Leopold de Rothschild, Esq., takes a foremost place. Though not of extra large dimensions, it is a unique garden in several respects, and its indefinable charm is due in a large measure to a deviation from the usual beaten track in arrangement and design, and the result is that, though many bold schemes are introduced, the whole presents a harmonious and pleasing picture.



BEDS OF GARDEN ROSES AT GUNNERSBURY HOUSE.

During the early days of September we had the pleasure of calling, our visit being prompted mainly by the exquisite new Water Lilies which had been shown before the Royal Horticultural Society a few days previously, two of which received awards of merit. It is generally admitted that nowhere in Great Britain are hardy Water Lilies grown better and under more natural conditions than at Gunnersbury House Gardens. A large stretch of placid water, the margins of which merge unconsciously, as it were, into banks clothed with Bamboos, Typhas, Cyperus and other kinds of semi-aquatic vegetation, forms an ideal home for the bulk of the plants, which comprise the cream of the late M. Latour-Marliac's hybrids, the exquisite beauty of which is, as yet, but comparatively little known. In a small pool in another part of the garden the beautiful Berlin variety of Nymphæa stellata was thriving amazingly, no fewer than twenty-eight flowers being open on some eight or nine plants at the time of our visit. Standing well out of the water, the sky blue colour

of these exquisite star-like blossoms is seen to the best advantage.

But perhaps the most pleasing feature of all—at least, to those who have a partiality for natural gardening—is the charming Japanese garden situated hard by the home of the Water Lilies. It is one of the earliest examples of the kind in this country, having been designed in 1900. Flagstone pathways of irregular outline, the chinks of which afford suitable lodgments for many kinds of low-growing vegetation, lead one between groves of Bamboos, Acers, Aralias and dwarf conifers, as well as hosts of other Japanese shrubs. Ever and anon the visitor is suddenly confronted by trickling streams of crystal water, which may be crossed in some instances by well-worn stepping-stones, and in others by the more plebeian rustic bridge. Verily this Japanese garden is a haven of pure delight on a scorching day of summer or autumn.

Another unique feature to be found here are the fine old specimens of terrace plants, which, though great favourites in many gardens several decades ago, have now fallen almost into desuetude. Scented-leaved Pelargoniums 9 feet in diameter, Myrtles the same in height, Oranges laden with their golden fruit, Pomegranates with their vision of scarlet flowers, and last, but by no means least, standard trees of Sweet Lavender, are all to be found here grown as tub plants. The majority have been raised from cuttings by Mr. Hudson, who rightly regards with pride the results of his prolonged yet loving task. Enormous plants of the early, yellow-flowered Chrysanthemum Horace Martin, some of them 8 feet in diameter, were also being grown in tubs, and prompted the remark that each was a movable flower-bed.

The whole front of the house, some 30 yards or more in length, was, at the time of our visit, a blaze of scarlet, obtained by freely using Salvia Pride of Zurich and Tropæolum lobbianum Fireball. These are grown in cleverly-concealed boxes which form miniature terraces right up the front of the house, and we venture to say that such a gorgeous display could not be seen anywhere else in Great Britain. The Tropæolum is a particularly good form, and has been grown in these gardens for very many years, propagation being effected annually by cuttings so as to keep the stock quite true to colour.

The autumn border, cleverly composed of hardy flowers which blossom at that season, was exceptionally pretty, the whole of the plants, despite the excessively dry weather that had been experienced for some weeks previously, being in excellent condition. Hard by this border is an enclosed garden of annual flowers, one of the most difficult of all gardens perhaps to keep in good condition for any length of time.

Fruit trees in pots are exceptionally well grown, and remarkable success has been achieved in this direction. Figs in particular were looking exceptionally well, and a supply of these is maintained over a long period. We were much interested in a house of miniature Grapes. This contained several varieties, viz., Royal Muscadine, White Frontignan, Dr. Hogg, Ferdinand de Lesseps, and the Strawberry Grape. These are grown in small bunches for dessert, and the house presented a novel and pleasing appearance.

Neither must we conclude our remarks without reference to the many beds of Roses which are a feature of these beautiful gardens. On the preceding page may be seen a view of the Rose garden taken at the time of our visit. The variety in the foreground of this picture is Souvenir de Pierre Notting, a charming Tea Rose that has rendered a good account of itself this year.

The Heath garden, together with plants growing on walls, the Ivies and hardy fruit, are other features of these gardens that lack of space prevents us dilating upon; but we would add, before closing, that we know of only a few gardens capable of affording so much joy to the real lover of flowers and fruits as those at Gunnersbury House.



THE BERLIN VARIETY OF NYMPHÆA STELLATA IN THE OPEN AT GUNNERSBURY HOUSE.

THE FLOWER GARDEN

SWEET PEA NOTES.

NOTES ON VARIETIES.—There is no individual who has proved more consistently successful in the distribution of praiseworthy novelties than Mr. W. J. Unwin of Histon. Season after season since he sprang into fame—and let us hope the achievement of fortune synchronised with it—by giving to the world Gladys Unwin, he has sent excellent varieties to the market, and they have been characterised by general reliability in regard to trueness. One does not suppose for an instant that Mr. Unwin would claim perfect reliability for any of his creations; but, at any rate, he could claim that his specialities have come as near to that Elysian state as any that have been distributed, and much nearer than some. In some seasons his lists have been extended, but for the present year he is modest, giving us only four, and stating that he will rouse the world by the excellence of his stocks of varieties which he has previously sent out.

The quartet embodies the inevitable lavender—and it has been named after one of the keenest men in the Sweet Pea world—Walter P. Wright. Now I confessed in my last notes that the lavender varieties were by way of being a worry to me, and no doubt they are to others as well, and this name makes me still more anxious, for if Mr. Unwin's Walter P. Wright does not stand out above all the lavenders and become recognised as the only variety of that extensive group worth growing, the raiser must suffer the consequences, whatever they may happen to be. Happily, it is, like practically all of Mr. Unwin's best, a vigorous grower, so that in at least one sense it will resemble the man after whom it has been named, who, although he has been conspicuous in horticultural circles for a quarter of a century, seems to be just as young, vigorous and enthusiastic as ever. I shall be interested to watch whether he will wear his name-flower out.

That delightful shade of blue which came first into prominence through Mrs. G. Higginson, jun., is reproduced in Winifred Unwin; but instead of the blooms being on the small side and belonging to the old-fashioned smooth group, they are of true Spencer form, and there can be little doubt that the variety will be heartily welcomed by growers. Strength is one of the notable features of Cyril Unwin, the colour of which is described as maroon, shaded violet, the latter being the hue of the wings. It is a little unfortunate that many of this group are on the gloomy side, but some of these days we shall have one that glows with a silken sheen; it will be given a wide and handsome reception.

APPLES

SANSPAREIL

KING EDWARD VII.

ROSE NONPAREIL

We are getting a fresh group of what is called a medium blue shade, and I must confess that it has not yet become perfectly clear to me exactly what the medium is between. However, there can be no question that those who use the expression fully understand its meaning. Mr. Unwin's fourth 1912 novelty comes within the set, and is called Leslie Imber.

Messrs. Stark and Son, Great Ryburgh, Norfolk, suffered the greatest disappointment when their glorious George Stark failed to maintain its splendid promise; but others which they have sent out have lived a useful life and have only fallen into disfavour when superior varieties of the similar shades have come from the same or other sources. For the present sowing season they promise us no fewer than eight varieties, which, in my humble opinion, is at least two too many, for this wholesale multiplication of names cannot ultimately redound to the pleasure of Sweet Pea culture; on the contrary, where differences are so slight as we find them in scores of flowers nowadays, it is much more likely to lead to irritation.

The set comprises Blue Jacket, a navy blue Spencer, which promises handsomely. It is a colour that is decidedly wanted by all growers, whether their object be exhibition or personal pleasure. Majestic and Primrose Beauty do not sound quite so promising, for they smack much of the peerless Clara Curtis. However, they will certainly be tried, and will soon find oblivion unless they are of outstanding merit. White Queen again brings up Etta Dyke or Moneymaker, and will have to be good to live a long life. A. B. Essex.

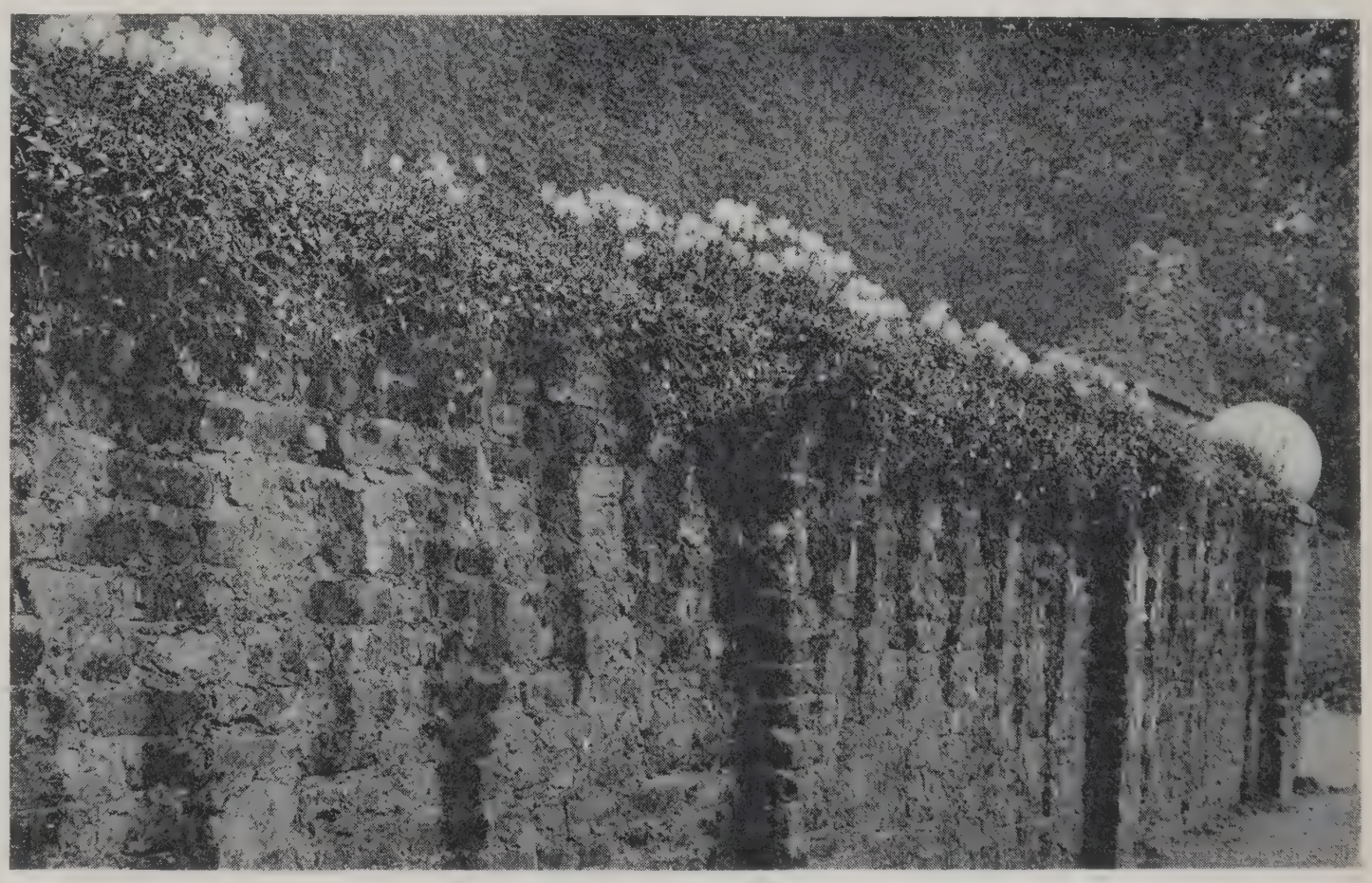
DAFFODIL BULBS AND THE HEAT.

On all sides I hear complaints of the way in which the bulbs are keeping this autumn. In my long connection with Daffodils I have never known anything like it. Thinking that my experience might be peculiar, I took advantage of a recent visit to London to attend a Sweet Pea committee meeting, to enquire of representatives of two of our leading firms—one from London and the other from the Midlands—whether they had had any trouble in this respect this season. They both replied in the affirmative, and said that they had never before gone through such a time. As everyone knows, the railway strike and the subsequent congestion of traffic occurred in the very middle of the time when traders were getting in their stocks, and hundreds of cases must have been an altogether abnormal time on the road. Let me give one example from my own personal experience—a box left Holland on August 31, and it only reached Whitchurch (Salop) on October 2.

I find the going bad of the bulbs is generally put down to delay in delivery, from which everyone suffered, and the long time they had to remain packed. Both the gentlemen to whom I have referred above, and others to whom I have since spoken, put it down to the same cause. Personally, I doubt it; for while I unhesitatingly affirm that confinement in packing-cases was *contributory* to the mischief, I believe it was not the root of it. My reasons for saying this are mainly two. First, if it were so, nearly all the bulbs in a consignment ought to have shared the same fate. Putting that notoriously bad keeper Horsfieldii on one side, how was it that in one case within my own experience Barri conspicuus was the only kind to go bad, and in another Poeticus ornatus, *both* consignments containing both Barri and ornatus? Secondly, I have found precisely the same thing happen where bulbs have not been packed at all (*e.g.*, in my own stock of White Lady, which I have always looked upon as particularly healthy, I have had many examples of the rot), and also I have found that badness and length of time on the way are not convertible terms. The Barri conspicuus already mentioned were only packed a very short time.

My own idea is that the mischief has been done while the bulbs were in the ground, and that it has been induced by the abnormal heat. I fear many private people will have got bad bulbs this season. It is extremely difficult to detect them in the initial stage. I have passed a lot with my eye as being sound; but when my man and I have carefully felt each one and minutely examined it, we have found a large proportion of them to be unsound. It is manifestly impossible for dealers to do this. The time it would take is quite prohibitory. Hence my note of warning.

I would suggest as a safeguard the careful examination of each bulb, as far as possible, before any are planted. The beginning stage of the rot is hard to detect, as I have already said. The bulb feels a little soft and its outer skin does not look quite right. If it is removed, there is a peculiar greyish look on the inner integument which suggests all is not well. Then the base seems to harden and go brown, followed by a sort of grey rot (I cannot think of a better word) which gradually extends from the base upwards over the whole bulb. Then a ring of mould appears round the base and decay rapidly takes place. Such is the life-history as far as I have been able to trace it. I think the experience of others would be deeply interesting, so I hope some unfortunate will give his, and I am sure the Editor will open his columns for the purpose. My last words must, I am sorry to say, be gloomy ones. I do not anticipate high quality flowers next spring. I fear the heat has been too great and the sun too powerful. Joseph Jacob.



AN OLD WALL SURMOUNTED WITH ANTIRRHINUMS AND LOBELIA IN GUNNERSBURY HOUSE GARDENS.

COLOURED PLATE.

PLATE 1437.

THREE GOOD APPLES.

Having grown Sanspareil Apple for fifteen years, I am glad to see it figured, as it is one of the best dessert varieties for use from February to April. It is an enormous cropper, and the fruit is generally clean and free from spots, of a pleasant juicy rich flavour and keeps without shrivelling. It is best as a dwarf on the Paradise stock.

The variety King Edward VII. I have seen growing at the raisers'. It bears very freely, and is a firm, heavy fruit for kitchen use during February and March. Its parent was that fine cooking Apple Golden Noble, but it has not the fault of that variety, viz., long growths which are bare of spurs. I consider it a valuable market kind, and one that every private grower should try. The growth is rather erect and sturdy, and promises to form a large orchard tree.

Ross' Nonpareil, though an old Apple, is not much known. It has a soft, pleasant flesh and a spicy flavour, and is in perfection at Christmas. It forms a regular compact pyramid or bush, and fruits nearly every year. The Apples are always perfect in shape, and of a pretty size and appearance for dessert. Having a long stalk, the fruits do not get blown down off the standard trees, and it does well in this form. It is much

relished by those who cannot digest a crisp, hard-fleshed Apple.

Maidstone. GEORGE BUNYARD.

[The fruits from which the coloured plate presented with this issue was prepared were kindly supplied by Messrs. George Bunyard and Co., The Royal Nurseries, Maidstone.—ED.]

CHRYSANTHEMUMS

EXHIBITION PLANTS.

THE management of the plants under glass will now make a big demand upon the time of the cultivator. He will, however, be deeply interested in the opening blooms. The latter will afford him much pleasure and prove highly interesting, especially the new varieties. Of the latter I think Frances Jolliffe will be one of the most successful and beautiful. The buds were produced freely on plants making natural "breaks," and they are swelling and opening freely; the foliage is also clean and free from mildew. With regard to habit and growth, the variety Willie Rawlings is everything that one could desire; but many buds are disappointing, coming black in the centre. Mary Poulton was a persistent bud producer throughout the season, but some very fine ones formed at the right time. Mary Farnsworth developed crinkled leaves, but the buds formed well. Mrs. H. Stevens has done well; the buds on plants stopped in March formed at the right time and developed well. Mrs. R. H. B. Marsham was much liked by earwigs and, consequently, some shoots were badly damaged. Buds "taken" about August 15 are doing nicely. Very often cultivators place the plants in cool, dry, darkened sheds. In places of this kind they keep well if water is given in moderation, just sufficient to prevent the leaves flagging; but the blooms often collapse in a very short time afterwards when exhibited in a light, warm room.

Ventilation. — Air must be freely admitted on every fine day, and also at night when there are no fogs. Cold draughts must be avoided, as they would cause the spread of mildew and much damping of petals. If possible, the amateur cultivator should fasten some coarse scrim or similar material over all front ventilators to prevent cold draughts coming through. Top ventilators should also be similarly covered during foggy weather.

Watering.—All water needed must be supplied in the forenoon. If the soil dries somewhat in the afternoon, the plants will not take any harm if water be withheld until the following morning. When the pots are rather crowded together, and the plants also, in a glass structure, there is not much evaporation, and watering will not be necessary every day.

Feeding.—Until the blooms are half developed or a little more, stimulants must be given every time moisture at the roots is required. Of course, very strong doses should not be given, else the tender roots may be injured instead of benefited, and although it is advisable to let the soil become fairly dry, it should not be allowed to get too dry, else damage will be done when the stimulants are applied. After the blooms are a little more than half developed, clear water only should be given to the plants and, when fully developed, in such quantity as to prevent the leaves and flower-petals getting flabby.

How to Improve Blooms.—No addition must be made to any bloom, but any deformed petals may, and ought to, be removed. If curled and ill-shaped petals are carefully pulled out while the flower is opening, the sound and well-shaped petals will fill up the gaps made and, finally, form a better bloom. This particularly applies to blooms of the incurved section. A Japanese bloom may be gently shaken by the hand, and it will be improved, but such treatment would entirely disarrange the petals of an incurved bloom and so mar its natural beauty. Of course, it is very important that the petals retained be not damaged where the malformed ones are being taken out. AVON.



A FIVE-YEAR-OLD TREE OF APPLE BRAMLEY'S SEEDLING IN A NOTTINGHAMSHIRE NURSERY.
(*See page* 526.)

THE TOWN GARDEN.

PERPETUAL-FLOWERING CARNATIONS.—Owing to the long-continued and unprecedented heat of the past summer, the young plants of these recently housed are giving evidence of the presence of red spider, one of the worst pests the Carnation-grower has to contend with. In quite a short time the pest, if not immediately grappled with, will have become so established as to threaten any further good progress on the part of the plants, and even moderate attacks are responsible, often enough, for poorly-developed and under sized, as well as indifferently-coloured flowers. In the open garden it will attack many plants, one of its favourites being the Violet.

THE REMEDY TO APPLY IN THE CIRCUMSTANCES is to syringe cold water on all parts of the plant, the under sides of the leaves more particularly, since it is there where the larger numbers will be found. Where the plants are not yet in flower, clear soot-water may be applied, with good results, while flowering examples, or such as are prominent in bud, may be sprayed with Quassia solution or those very excellent insecticide preparations known as XL All. By employing these in conjunction with a Pine Spray Syringe, both of which are advertised in our columns, the pest in question may be dealt with effectually. Badly-affected plants should be treated at frequent intervals, taking care that all parts of the plant are wetted. The only way to do this is to lay the plants on their sides on mats or bags, as in this position the under sides of the leaves are available for treatment. Use the syringe freely about the plants in the house and generally below and about the stages. Moisture is fatal to red spider, and the pest is rarely found where this is intelligently maintained.

TUFTED PANSIES.—Cuttings that were rooted a few weeks ago should now be in good condition for planting in their permanent places in garden beds or borders, and there is no better time for the work than the present. In rather dry soils, and in the Southern Counties more particularly, the planting of these Pansies during the autumn months is much to be recommended; indeed, it is the way to get the plants established, so as to be capable of a good early flowering. Spring-planted examples are only a success in the hands of the specialist and with special treatment, while those put out in autumn must be catered for in a liberal manner. Hence dig or trench the ground deeply, and employ low down below the plants a good dressing of manure to encourage the roots from the surface. Above all, keep the surface of the bed rather below the ordinary level and moderately flat, so that all the moisture is retained to the plants. These Pansies are not only useful as suggested above, but by employing them as carpet plants to beds of bulbs they furnish a good display till the beds are ready to receive the more tender bedding subjects in June.

KEEPING APPLES.—Not a few suburban amateur gardeners grow a few varieties of choice fruits which they are desirous of keeping as long as possible. In these circumstances no fruit-room exists, and indeed is not necessary; hence recourse has to be had to those very convenient receptacles for fruit-storing now in vogue. But while the receptacle may be a model of its kind, it is not infrequently accorded a place quite unsuited to it. Now, the atmospheric conditions of the orthodox fruit-room are as cool as the proverbial Cucumber, and it is this uniform coolness in conjunction with, so far as is possible, entire absence from light and draughts that constitute ideal conditions for keeping fruit in good condition. The opposites of these will quickly ruin the finest fruits that were ver grown. S. N. N.

GARDENING FOR BEGINNERS.

LIFTING RHUBARB FOR FORCING.

MOST persons will admit that forced Rhubarb in point of flavour surpasses that grown naturally, and this, no doubt, is one of the reasons why it is so eagerly sought after. To obtain the earliest supplies, the first batch of roots should be lifted as soon as the leaves of the Past season's crop have died down. A sharp frost or a continuation of cold, damp weather will soon bring about this condition of plants of this subject. It is the rule in establishments where a specially early supply of Rhubarb is wanted to lift a few roots during the earlier half of November. Close observation has shown that if the roots on being lifted are left exposed to the open for about a week, they usually start into growth better when placed in heat. The roots should be lifted so as to avoid damaging them more than can be helped. Large roots such as that depicted in Fig. 1 need to have a trench dug all round them, otherwise it is impossible to get well down under the roots, which is quite necessary if lifting is to be done properly. In gardens where roots for forcing are required in fairly large numbers, it is a good plan to grow a batch of plants on a warm border specially for this purpose. They can be lifted as required, and by these means roots for the early summer supplies are not interfered with. Rhubarb roots after forcing are not usually replanted. They are more often divided for the purpose of providing future supplies. These divided pieces should be given a year's rest, this interval sufficing to reinvigorate them. The earliest batch of lifted roots should be placed in boxes, barrels, large pots, or any receptacle large enough to accommodate them, this enabling the grower to move them about from time to time. Fairly light soil should be placed round about the roots. A suitable compost may be made up of leaf-mould and good garden soil. As a matter of fact, any good soil will answer the purpose very well. Some growers are content to put leaves, tan, or any soil that will retain moisture round about the roots. An excellent position for these receptacles is under the stage of a warm greenhouse, where the temperature can be maintained at from 50° to 55°. A greater heat than that mentioned is accorded in some gardens, and by these means a supply of Rhubarb may be had at Christmas. Warmth and darkness are considered by most growers as essential factors in the successful forcing of Rhubarb, and for this reason lifted roots are often placed in Mushroom-houses and warm cellars, and even a stoke-hole is utilised in some gardens where space under glass is limited. The lifted roots should be taken indoors from time to time in succession, so as to maintain a continuous supply of solid, crisp stalks; and to ensure that the colour may be good, and also that tough and stringy growths may not be developed, the roots and soil should be maintained in a thoroughly moist condition by frequent applications of tepid water. So much for supplies raised under glass, &c.



2.—RHUBARB OUTDOORS COVERED IN WITH BARREL AND STABLE LITTER.

A simple means of forcing Rhubarb that is specially advantageous after the earliest crops indoors are more or less exhausted is that of raising supplies outdoors by artificial means. This is a practice that should be extremely popular, as anyone with a small amount of trouble may achieve results that are very satisfactory. For successional crops outdoor forcing is much to be preferred. The plants should be forced where they are growing, and if a warm border is available, so much the better. All that need be done in forcing a crop outdoors is to cover the crowns of the plants with barrels, boxes, tubs, or special earthenware pots with movable lids that are sold for this purpose. Seakale pots are often requisitioned for forcing Rhubarb. In Fig. 1, where a lifted root of Rhubarb is shown exposed to the open before being taken indoors, a plant is seen with a barrel ready for covering the same. Larger barrels are usually sawn in two. The top end of the barrel is generally knocked out and made to answer the purpose of a movable lid, this being removed for observation and air-giving, also for obtaining supplies when ready. These utensils should be embedded in stable manure and leaves, this material providing the necessary warmth to excite the crowns into growth. Fig. 2 serves to illustrate the method of forcing Rhubarb in the open, which is a simple and inexpensive way of raising this crop out of season. When leaves and stable litter are mixed in the proportion of about two of the former to one of the latter, a gentle heat may be provided. It is astonishing how simple and effective this mode of forcing Rhubarb has become. A splendid crop of luscious sticks may be readily obtained by these means.

D. B. CRANE.



1.—PREPARATIONS FOR FORCING.

CROCUSES.

How to Grow Them in Pots.

THE Crocus is one of our earliest-flowering bulbs, and is on that account greatly appreciated by all lovers of spring flowers. We are well acquainted with their beauty in both small and large borders, in clumps in shrubberies and in colonies on the lawns, but many fail to grow them in pots.

There are amateur gardeners who like to have a nice collection of bulbs in their town and suburban gardens, but who on account of lack of space cannot grow many of the larger kinds. A dozen bulbs of Crocuses may be potted in a 5-inch flower-pot. The latter takes up a small space, but the number of flowers borne in it is really wonderful. If a few bulbs are potted every week until the first week in December, the display of blossom may be considerably prolonged and the flowers will always be fresh. It is not necessary to confine these bulbs to pots, as they do very well in shallow pans. About three dozen may be planted in a 7-inch pan. Use as a compost fibrous loam and leaf-soil in equal proportions, with a free admixture of coarse sand and some well-rotted manure. The latter must be rubbed through a half-inch-mesh sieve, and in this condition it will be easy to mix it evenly with the soil.

Put sound drainage in the pots and pans and lay the bulbs on an even surface, covering them 1 inch deep. Place the newly-potted bulbs in a cool frame or on a bed of ashes in the open air and cover them with sand, not ashes, unless the latter have been exposed to the air for at least six months, as ashes contain rank gases injurious to the free growth of bulbs. Crocus plants flower at an early stage of growth, so that it will be advisable to closely watch them and remove the pots from the covering material when the shoots are 1 inch long. Gradually expose the plants to air and light in a cool frame, and then place them in the greenhouse, glass porch, or dwelling-room window. The following are good varieties which will make a brilliant display:

White.—Queen Victoria, Mont Blanc and King of the Whites.

Yellow.—Mammoth, or Large Golden.

Blue and Purple.—Baron Brunow, Albion, Meyerbeer, Ne Plus Ultra, John Bright, Princess of Wales, King of the Blues and purpurea grandiflora.

Striped Varieties.—Mme. Mina, Sir Walter Scott, General Vetter, La Majestueuse, Cloth of Gold and Cloth of Silver.

B.

THE FRUIT GARDEN.

HARDY FRUIT TREES DURING 1911.

IT is scarcely possible to exaggerate the damage done to hardy fruit trees throughout the country by the great and long drought we have suffered from during the past summer, and are still suffering from. The damage has, no doubt, proved more disastrous in the South of England than in other parts; but it has been sufficiently severe generally throughout the country to warrant the saying that this has been the most memorable year in this respect in the experience of gardeners of the present generation. The loss from trees which have been killed outright by the drought will be great, and especially in Plum trees on light land resting on gravel, the variety Victoria being the greatest victim. But the loss from this cause will be trifling compared to the damage caused generally to fruit trees by the crippled condition many of them are left in, and from which it will take years to recover. This will, unfortunately, be reflected in the poor crops such trees may be expected to produce the next and following years. It may be asked, Can nothing be done, then, to help such crippled trees to a speedier recovery? Undoubtedly there can, and this is the reason I have ventured to draw attention to the subject; but if the help is to be effective, it should be rendered soon, while the earth is warm and growth is still more or less active.

In dealing with large orchards covering many acres, it will not be practicable to apply the remedies I will venture to suggest which may be carried out in the garden; but even in orchards of large extent something may be done to help to improve the condition of those enfeebled trees by forking the ground lightly and cleaning it of weeds or other growth by which it may be overrun. This would help to better aerate the soil, and would also accelerate the passage of rain to the roots of the trees. In addition to this, I would venture to suggest that the ground over the roots of the trees, before it is forked over, be liberally strewn with bone-meal, say, a quart to an ordinary-sized tree, burying it a few inches deep afterwards in the process of digging; and if some rotten stable or farmyard manure is available, a mulching of this, say, 4 inches deep, if placed over the surface of the soil as far as the roots extend, would immediately do a world of good by at once stopping any further evaporation of moisture from the soil, and at the same time nourish the roots now and during the winter by the manurial properties of the dressing washed down to the roots by rain.

Treating of trees in the garden, probably the cases of actual loss are comparatively small, as these, as a rule, are growing in deeper, better cultivated and manured soil than trees in field orchards. But even here, where watering and mulching have not been attended to, the damage has been great, especially among wall trees planted in sunny positions. With respect to these trees, the fact, I am afraid, is often lost sight of that they do not receive their fair share of the rainfall of the year as compared with trees planted in the open. For instance, trees planted on a south wall receive little or no benefit when the rain comes from the north, and the same applies to trees planted on other aspects; the night dews also mostly give them the go-by. Let me, then, advise all those who can to give their trees a thorough irrigation first of clear water (and that as soon as possible), and then in a week's time an equally effective watering with manure-water from the stable or cow yard in fairly strong solution. Afterwards give the trees a sprinkling of bone-meal, forking it lightly into the soil, and dress the surface of the border with a covering of rich and well-decayed manure 4 inches deep as far as you think the roots extend. To the inexperienced in these matters I ought to point out that the roots near the stems of the trees are matted together so hard, and the ground is now so dry, that water unaided could not possibly penetrate to the roots. I advise, then, that holes be made with a crowbar here and there in the earth near the stem of the trees (but not too near to them) at distances of 15 inches apart for a radius of 3 feet from the trees. The holes should not be made deep enough to reach the subsoil, or the water will be more or less wasted by its passing away too quickly. In addition to this, a ridge of soil should be formed 6 inches high round the tree at distances from it varying according to the size and age of the tree, say, from 3 feet to 9 feet, in order to dam and concentrate the water over the bulk of the roots. If manure-water is available and time to apply it, give two or more waterings in the course of the winter, and one more in spring, before the trees start into growth. Trees growing in the open and suffering from the same cause would be greatly benefited by being treated in the same way. The holes made in the border near the stems of the trees should be filled up with good loam and pressed hard in as soon as the necessity for further watering has passed away.

OWEN THOMAS, V.M.H.

NURSERY NOTES.

MESSRS. J. R. PEARSON AND SONS.

DURING the sunny days of mid-September we had the pleasure of inspecting the extensive nurseries of Messrs. J. R. Pearson and Sons. These nurseries are situated on high, sloping ground that fringes the Trent Valley near the little town of Lowdham, some eight miles from Nottingham—an ideal nursery for the rearing of young fruit trees and Roses, for which the firm is justly and widely famed. The soil is good, though rather stiff loam, and as the young trees are fully exposed on nearly all sides, they cannot help but grow sturdy and strong. For many years Messrs. Pearson have made a speciality of fruit trees, and though we expected their stocks to be good, we were amazed at their cleanliness, sturdiness and general high quality. In the whole of the quarters we failed to find one tree attacked by any serious disease or insect pest, a fact that speaks volumes for the treatment given them in a season such as that experienced this summer.

Trained fruit trees of every conceivable form were to be seen on all sides. No fewer than 50,000 of these were sufficiently developed for moving this autumn, these including some of the finest and healthiest Peaches and Nectarines we have ever seen, to say nothing of the Pears, Apples, Plums and Cherries that abounded. No doubt most of our readers have, at some time or another, had experience of fruit trees wrongly named, a vexing problem that appears difficult to overcome in many nurseries. To prevent any mistakes of this kind, Messrs. Pearson only take grafts or buds from trees which have actually borne fruit in their nurseries, so that the varieties used for propagating have been proved true to name. This is a wise and most praiseworthy precaution, and one that growers will, we think, greatly appreciate. Despite the excessive drought, all the young trees at the time of our visit were the picture of health and vigour, due, no doubt, in a large measure to the excellent system of surface cultivation that is adopted. Between the whole of the trees there was a fine tilth from 4 inches to 5 inches deep, which had undoubtedly effectively conserved the natural moisture of the earth and enabled those fibrous roots which augur well for successful transplanting to be formed in abundance.

In addition to the trained fruit trees, we noticed a very extensive and beautiful stock of standard and half-standard Apple and Pear trees. These had wonderfully stout and straight stems, and a plantation formed with them would be a source of pride to the owner for many years to come. Dwarf bush and pyramid trees are also largely grown at Lowdham, and as every useful variety, both new and old, is stocked, it is not necessary for us to enumerate any. We were agreeably surprised to find many small trees, which Messrs. Pearson have planted to form orchards, carrying exceptional crops of first-class fruits, Lord Derby and Bramley's Seedling Apples being especially interesting. The illustration on page 524 represents a five year old tree of the last-named variety. This tree was only 3 feet high, yet it was carrying fourteen large and solid fruits. Such crops were the rule rather than the exception in this plantation, thus proving that this Apple will fruit freely in a young state if grown on the Paradise stock.

Gooseberries and Red and White Currants are trained in all forms, standards, cordons and the palmette styles being largely adopted. We believe that the growing of these fruits in the last-named form was first thought of by Messrs. Pearson. The value of these trained Gooseberries and Currants for small gardens cannot be over-estimated; they occupy but a small amount of space and give bounteous crops of fruit of the very best quality. Moreover, they are easily pruned and kept clean, and if birds are troublesome it is an easy matter to cover them with nets. Walnuts, Mulberries, Apricots, and Vines in pots were to be seen in large quantities.

Roses, too, are grown at Lowdham on a very extensive scale. We do not remember ever seeing a better display of autumn Roses than on this occasion. Sturdy, branching bushes were flowering with a profusion that was almost bewildering. All were exceptionally clean and healthy, and all the best of the older varieties, as well as the newest and latest introductions, were to be seen in large quantities. Standard Roses were present in their thousands, and beautiful plants they were. It may be of interest to some to know that Messrs. Pearson now almost exclusively use the rugosa stock for these. They find that it lasts well, and its profuse rooting character ensures the trees transplanting without the failures that always occur in lesser or greater degree where the Briar stock is used. Climbing and pillar Roses of all kinds, the wichuraianas in particular, are also grown by their thousands, and, judging by the quantities that we saw, Messrs. Pearson would be able to execute any order, no matter how large it might be.

Another branch of this business, under the direct management of Mr. Duncan Pearson, is devoted to bulbs and Sweet Pea and other seeds. Mr. Duncan Pearson is a keen lover of the Daffodil,

and at the time of our visit was as busy as the proverbial bee sending out large consignments of solid, healthy-looking bulbs. Sweet Pea seeds, too, for autumn and spring sowing were being despatched to all corners of the earth, the firm holding extensive stocks of all the standard and new kinds, including their own beautiful pink novelty, Elfrida Pearson, a variety that bids fair to oust Countess Spencer and others of its ilk that have long held sway. There is no doubt that in every section of this large business the greatest possible care is taken to supply goods of the best quality only, and having seen the general excellence that prevails on every hand, we know that our readers may with confidence place any orders they may wish executed with the firm.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Violets (*C. B.*).—We imagine you have treated the Violets too liberally, and in all probability leaves will appear at the expense of the flowers. You say nothing about the present condition of the plants, their size, whether flower-buds are showing, or the variety you are cultivating. Rich and deep beds of soil during mild weather conduce to a new and over-luxuriant growth, and half the material named of poorer quality would have favoured a better flowering. All you can do now, short of lifting and replanting, is to allow the soil to become moderately dry and make it quite firm about the plants, loose soils being very objectionable. The lights need only be closed when severe frosts are expected. In mild, open weather at this season well water once a week, though the condition of the soil must guide you in this.

Tasmanian Tree Ferns (*A. T. Ha.*).—It is very doubtful whether you will be able to keep your Tree Ferns safe out of doors without protection in the neighbourhood of London, though it depends largely on the species. If they are Dicksonia antarctica, they will be more likely to stand than if they are any other species. We should, however, advise you to bind the stems round with mats or hay at the approach of frost, and also tie up the heads with mats. The coverings must be removed when a thaw sets in, and not be kept on for a period of several months. These Ferns do very well out of doors in Cornwall; but the climatic conditions there are much more favourable than they are about London.

Hydrangea and Iris (*A. L.*).—The flower-trusses may be removed from the Hydrangeas at any time, and the growths shortened back also. The actual pruning, *i.e.*, the cutting back of the shoots to within three or four eyes from the starting-point of the current season's growth, had better be deferred until February next, though any straggling shoots may be removed in their entirety at once. The Irises, if lifted now that new roots have been emitted, will, we fear, receive a severe check. The lifting should have been done in July, when the bulbs were quite dormant. You might, however, in view of the abnormal heat and dryness of the year, examine the bed to ascertain the condition of the plants, as there is just a possibility of a belated root-action this year. If this is so, the lifting and replanting should be done at once.

Water Lilies (*A. D. F.*).—Of the white Water Lilies you name it is but a question of choice, albida being the largest and most vigorous perhaps, and gladstoneana the whitest and noblest we have seen. For the open lake we should select the former, and for a restricted area the latter. Of the yellows we should give preference to odorata sulphurea grandiflora. Of the other variety mentioned we have no personal experience, and do not indeed even know it by name. Should it prove more brilliant than William Falconer, it is certainly worth having, even in a small collection.

TREES AND SHRUBS.

How to kill Willow trees (*F. P.*).—You can kill your Willow trees by removing the soil from the roots, then boring holes into the base of the trunks and the main roots, and filling them with ordinary salt. Holes 1 inch in diameter are satisfactory. By watering the trees with a poisonous liquid, such as weed-killer, the trees may be killed quickly; but the surrounding ground would be unfit for further vegetation for a considerable period, while the deleterious effect of the salt would soon disappear.

Lavender (*M. E. B.*).—The only other Lavender we can suggest as being likely to thrive in addition to those you already possess is Lavandula pedunculata; this is hardy in some places, but is liable to injury during a severe winter. It is possible that you may be able to obtain other varieties by placing an order with some reliable firm of nurserymen, asking them to obtain for you any varieties you do not already possess. Large collections of Lavenders are seldom made, and it is not possible to name a firm of nurserymen likely to have a full collection in stock.

THE GREENHOUSE.

Peacock Iris (*M. M. N. D.*).—In your district (Dumfries) this plant will require to be pot-grown and given a temperature of from 40° to 45°. The soil should consist of very sandy loam, or loam, leaf-soil and sand in about equal parts. In a pot of 6 inches diameter half-a-dozen bulbs could be planted about half an inch deep. The plant is by nature a sun-loving subject, and the soil for all such must be perfectly drained. Bulbs potted now and kept secure from frost till a little growth has been made would, in the temperature named, flower about April or May next. Much, of course, would depend upon the season.

Carnations diseased (*E. North*).—The Carnation is attacked by the rust fungus (Uromyces caryophyllinus). The diseased leaves should be removed and the plants dipped now and then in a rose red solution of potassium permanganate. The atmosphere should be kept as dry as possible, and free ventilation given; a damp, close atmosphere is conducive to the disease.

Begonias diseased (*F. N. Adkin*).—The Begonia sent was very badly attacked by the Begonia mite, quite a microscopic insect. It is only within the last few years that it has caused trouble, but has been in many places very destructive this year. Vaporising with XL All Vaporiser is regarded by many as securing immunity from these pests, while others prefer to dip the plants in a solution of nicotine.

Cobæa scandens (*M. K.*).—It is probable that you might save your Cobæa during the winter, seeing that it is trained to a wall, provided you protect it during the winter by means of a mat or two. You need not cover the entire plant, as, even if cut back to within a yard or so of the ground, it will break out strongly in the spring and soon assume its usual dimensions. As protection is needed only during severe weather, the mat might be so arranged that it can be removed when the weather is mild. It will, of course, be particularly necessary to protect the base of the plant, and for this purpose dried leaves are as good as anything. A piece of canvas or a mat fastened over the leaves will prevent their being blown about by the wind.

ROSE GARDEN.

White Roses (*W. R.*).—The following white Roses should grow well on your stony soil: Frau Karl Druschki, Boule de Neige, Hon. Edith Gifford, Nova Zembla (very strong grower), Margaret Dickson, Mme. Fanny de Forest, Merveille de Lyon, White Killarney, Katherina Zeimet, Blanc Double de Courbet and Mme. G. Bruant. Some good-coloured Roses for a shady corner would be Conrad F. Meyer, Mrs. A. Waterer, Hugh Dickson, Ulrich Brunner, Mme. Isaac Pereire, Captain Hayward, Tom Wood, Zepherin Drouhin, Grüss an Teplitz, Fellenberg and Charlotte Klemm. A good yellow for your greenhouse would be Bouquet d'Or.

Revising list of Roses (*H. T.*).—We are glad that our advice given about a year ago has been helpful to you. The list you submit is such a good one that it becomes very difficult to make suggestions towards improving it. Instead of Nos. 1, 6, 16, 17, 18, 20, 21 and 28, we should name as improvements, from the point of view of shapely buds, respectively, Lieutenant Chaure, Leslie Holland, Mme. Leon Pain, Souvenir de Gustave Prat, Margaret, Colonel Leclerc, Kronprinzessin Cecile and Gloire de C. Guinoisseau. For the greenhouse, instead of Nos. 37, 38, 39, 40, 41 and 42, obtain Duchess of Portland, Mrs. Alfred Westmacott, Duchess of Wellington, Jonckheer J. L. Mock, Entente Cordiale (Pernet) and Harry Kirk.

Protecting Roses in a large manufacturing town (*H. T.*).—There can be nothing better than glass for your purpose. You could have a few inexpensive lights made and just lay them on skeleton frames over the Roses, so that air can enter below. These would ward off dust and frosts. The Willesden Paper and Canvas Company, Willesden, sell some excellent canvas which might answer your purpose, as it is not necessary, either now or in early spring, for Roses to have direct sunlight, at least not when the leaves have fallen; but we should advise you to have the glass, as we think it best, all things considered, and really cheapest in the end. Any handy-man could make the lights, which would be about 6 feet by 4 feet. You will find the daily use of a good syringe very helpful, as this removes dust and other deleterious substances before they have a chance of becoming consolidated.

Selection of Hybrid Tea Roses (*Rus-in-Urbe*).—We think the following selection would please you, although they do not all come up to the standard of form desired. Some of the sorts that possess this form are very poor growers. Our selection would be: Pink—Mme. Jules Grolez, Mme. Segond Weber, Dean Hole, Margaret, Earl of Warwick and Kronprinzessin Cecile; scarlet—Richmond, Liberty, Rhea Reid and J. B. Clark; yellow—Melanie Soupert and Mrs. Aaron Ward; mixed—Joseph Hill, Countess of Derby, Lyon Rose, Prince de Bulgarie, Réné Wilmart Urban and Antoine Rivoire. In preparing the beds, you should add some basic slag to the lower soil in addition to the manure, and to the upper soil bone-meal, about a handful to each plant of the latter. The basic slag at the rate of about 6oz. per square yard, and fork it well in with the soil and manure.

Roses for a hedge (*H. W.*).—Something depends upon the height of your rustic fence. If only some 5 feet or 6 feet, we should recommend you to plant Grüss an Teplitz, Alister Stella Gray, Zepherin Drouhin, Wm. Allen Richardson and Hugh Dickson; but if you are contemplating a tall hedge, then the beautiful wichuraiana Roses would be best, with a few fast-growing Teas and Hybrid Teas, such as Mme. Alfred Carrière, Reine Olga de Wurtemburg and Climbing Caroline Testout, interspersed, so as to have bloom as soon as possible. Of the wichuraianas, Alberic Barbier, Dorothy Perkins, Excelsa, White Dorothy, Réné André, Gardenia, Leontine Gervais and Newport Fairy are very good sorts. The Penzance Briars, too, are effective, but have a very short flowering season. A distance apart of 6 feet would suffice for the fast growers; for the lower fence, about 3 feet to 4 feet apart.

Dwarf Polyantha Roses for plot of ground (*J. B.*).—You are well advised to plant a bed of these delightful little Roses, for they are almost indispensable now to any garden, and practically always in flower from early June to October. They will last for years, but it would be advisable to transplant them at intervals of three or four years, replanting in the same bed if desirable. We advise hard pruning each year. This plot of land (20 feet by 14 feet) would look well if a weeping Rose of, say, White Dorothy were planted in the centre, then twenty-four plants of Mrs. W. H. Cuthbert beneath it at a distance of about 18 inches apart. Then the corners could be planted triangularly of one sort to each corner, with a half-standard of the same variety in each triangle. The varieties we would suggest are Perle d'Or, Eugénie Lamesch, Cecile Brunner and Leonie Lamesch; or, if preferred, Jessie to this latter, although it is rather newer and, consequently, somewhat expensive.

FRUIT GARDEN.

Cob Nuts not bearing (*J. H. P. D.*).—We cannot say with any degree of certainty why your Cob Nuts have ceased to bear fruit. An unfavourable spring sometimes accounts for this condition, while unsuitable pruning may also result in the loss of fruit. The bushes should be kept well thinned out, and very often side branches are spurred back after the manner of Apple trees. There may, however, be local conditions of soil or climate which are unfavourable, and we should advise you to consult some local expert on the subject. It is probable that the County Council Horticultural Lecturer for Essex, who is resident at Chelmsford, would be willing to advise you.

Vines and bedding plants in winter (*Young Gardener*).—We are glad to hear that we have been of some help to you in bringing your Vines round to a healthy condition so soon, considering the deplorable condition they were in when you wrote us last year. To grow Grapes well, the Vines must have a season of rest in winter as well as a season of growth in summer. It would, no doubt, be better for the Vines to have the ventilators open day and night (excepting when the weather is very rough or very frosty) from now until the time they are started in February. But we cannot always do as we would like in these matters, and if you must find a place for your Geranium cuttings in the vinery during winter, you must bear in mind to keep it as cool as possible consistent with the well-being of the Geraniums.

To keep Walnuts (*G. R. G.*).—Your Walnuts ought not to be gathered until they are thoroughly ripe. They should then be spread out thinly on a floor in a dry, airy room, and be kept turned until the shells are dry. The Nuts may also be kept in good condition by fumigating them with sulphur, and then burying them in dry sand in an airy shed. Another method of preserving is to place the Nuts in layers in jars or large flower-pots, putting a little salt and dry sand between each layer. In whichever way they are stored, the green outer husks should be removed and the shells allowed to dry before storing. Occasionally people bury the Nuts out of doors, as they do Potatoes, in order to keep them.

Peaches and Nectarines with larger stones than usual (*W. H. W.*). — Overcropping, as you suggest, has most likely had something to do in causing this abnormal growth of the stones. We suspect that under-feeding of the trees has had something to do with it as well, especially as the weather has been so hot. Get at the roots of the trees this winter without disturbing them too much, and give them a good dressing of fresh fibrous loam, adding two quarts of bone-meal and the same of lime to every barrow-load of the loam. Make sure your drainage is right, and see that the roots are damp enough. If they seem to be on the dry side at all, give them at once a thorough irrigation of manure-water (that is, provided the fruit is gathered), and again in a month's time.

Apple and Peach trees (*D. W.*).—It will be quite safe to move the Apple trees. If the work is carefully carried out in a workmanlike manner by an experienced man, the moving will do the trees good and add to their fertility. A little fresh, fibrous, turfy loam should be added to the soil of each tree, also half a pint of bone-meal. Tread the soil very firmly when replanting, and mulch the surface with decayed manure. The first week in November is a good time to do the work. To protect the Peach blossom you cannot do better than you suggest, namely, fix a glass coping to the top of the wall over the trees, and then have blinds and rollers fixed to the coping, to be let down at night and rolled up in the daytime. The coping must be movable, or it would injure the growth of the trees in summer by keeping away rain and dew from the foliage and roots. Messrs. Boulton and Paul of Norwich have made a speciality of providing and fixing these copings at moderate cost.

Pear and Cherry slugworm (*Pyrus*).—The grub on the leaf of the Pear, feeding on the softer tissues and leaving the veins, is the larva of the Pear and Cherry slugworm, so called from its superficial resemblance to a small black slug. The insect is very destructive if neglected, and is perhaps best fought by dusting the foliage attacked with fine lime dust, repeating the treatment not later than three days afterwards. This has the effect of causing the larva to shed its skin, and the second treatment catches it in a vulnerable condition and destroys it. The insect pupates in the soil, where it is not easy to destroy it, unless the top layers of soil are removed and burnt. Probably, however, the best method is to spray the trees with lead arsenate, which can now be obtained in the paste form. It should not be used within six weeks of fruit-picking, but may be used immediately after. The perfect insect appears in June, and a second brood in August. The larvæ are just appearing now (October 12), and about to drop to the earth and pupate.

Apple and Pear shoots diseased (*T. J.*).—It is seldom that scale, as in your case, or other injurious pests infest Apple or Pear trees when they are healthy and making a free and strong growth, but immediately the trees show weakness and signs of ill-health they become a prey to these pests. Therefore, in nearly all cases of infestation by insects, there must have been some predisposing cause at work. These causes are numerous and varied. It is often due to the soil being too cold, heavy and wet, or to too deep planting. Sometimes overcropping is the cause. A drought in a degree similar to the one we have experienced this year may be responsible, especially when the trees may be growing on land not too deep with gravel subsoil. What has been the cause in your case we cannot say, as we have no clue or particulars to go by. Both the Apple and Pear trees appear to be badly affected by a disease named canker. This is a mysterious disease, some varieties being more subject to it than others. It is most prevalent in trees growing on stiff, cold land. There is no cure for it; but trees affected go on bearing well for years. The best thing you can do is to spray your trees as soon as the leaves are off with the following wash: To four gallons of water add a quarter of a pint of paraffin and half a pound of soft soap, make a thick emulsion of the soft soap and paraffin in warm water, thoroughly mixing the two together, then add to the water (four gallons), and apply in a fine spray through a sprayer or syringe, taking care to moisten every part of the trees. While the wash is being applied to the trees, another person must be employed to constantly churn the mixture in order to keep the paraffin in solution, or it may damage the bark. This will kill the scale and any other pests with which the trees may be infested. To bring your trees back to better health, if they have not gone too far, the proper thing to do will be to clear away any grass or weeds which may be growing over the roots of the trees by forking. Afterwards give them a thorough soaking of manure-water. A fortnight later spread over the surface of the soil, as far as you think the roots extend, a good sprinkling of bone-dust, say, two quarts to a good-sized tree, forking it in 3 inches or 4 inches deep. Then cover the surface of the ground round each tree with a layer, 4 inches deep, of good rotten manure, and leave it there until the following autumn; then serve the same again. The object is to create a great mass of surface fibrous roots, which go to make flower-buds and increased growth.

KITCHEN GARDEN.

Celery (*E. A. R.*).—The Celery is very badly attacked by the fungus Septoria petroselini var. Apii, a disease producing fungus that has recently spread widely in this country as well as on the Continent. It is difficult to combat, but it is well to remove as completely as possible all the diseased leaves, and to spray the remainder of the plants with Bordeaux mixture. This may be quite safely used if the plants are already earthed up. All refuse should be burned, not thrown on the rubbish-heap, and next year the Celery should be grown in a different spot.

Rhubarb to place in dark cellar (*P. A. R.*).—About the middle of January would be a good time. If put in earlier it would not start to grow unless fermenting materials were used. The cleanest and best way of forcing it in cellars will be by planting the roots in soil in an old orange box or tub, covering them with short, clean, littery straw to the depth of 6 inches. If you want a continuous supply, place roots in other boxes about every fortnight or three weeks, and take them into the cellar and treat in the same way. They will succeed equally well in soil on the floor of the cellar if boxes are not available.

What is a collection of vegetables? (*Winnipeg*).—It is most interesting to get a request to solve an exhibition problem from so far off a territory as Manitoba, and we are pleased to find that THE GARDEN is there read and appreciated. In answer to your query that we should define the condition of a collection of twelve varieties of vegetables, we can but say that the number of twelve stated in the schedule governs the reply absolutely; that is to say, the number of varieties must be twelve only, no more and no less. But it is wrong to use the misleading term "varieties." The schedule should read "kinds," because it is kinds distinct from each other that are meant. Duke of York and Up-to-Date are varieties of Potatoes, or Gradus and Gladstone varieties of Peas, but Potatoes and Peas are kinds. You seem to have so read the schedule, as you exhibited distinct kinds; but why put in thirteen in your list? If you really showed thirteen distinct, you transferred the conditions of the schedule. All the rest, if good samples, make a very good collection. But your opponent, who was placed before you, staged over thirty kinds and varieties inclusive; hence he was out of the competition. Here in England if you staged thirteen distinct you would have been disqualified, because twelve only were required, and your opponent would have been simply laughed at. Evidently at Manitoba numbers have no definition. They may mean anything. Another year if the class be formed, get the promoters to specify "kinds," not varieties, and the judges to rigidly disqualify all exhibits in the class that include more than twelve distinct or less. With us a "kind" also means one dish or variety of a "kind" to represent that kind, and not several varieties. A very good wording for such a class is "twelve dishes of vegetables, distinct kinds."

MISCELLANEOUS.

Rust on Roses (*H. F. P.*).—The Rose leaves are attacked by a fungus known as Rose rust, common also on wild Roses of many kinds. It would be well if all the dead and diseased leaves could be gathered up and burned forthwith. If this could be completely done, there would be no chance of the disease reappearing another year.

Junipers and Pear disease (*H. J.*).—The disease on the Pear leaves is due to the attack of the fungus Gymnosporangium Sabinæ, the summer stage of which occurs on the Pear. The spores produced in the tubular cups germinate on the Juniper, where they cause the development of swellings in the stem, from which the fungus fruits protrude in yellow jelly-like masses. The spores produced here attack the Pear. Spraying with Bordeaux mixture at half the strength used for Potato spraying in May and early June would, no doubt, protect the Pears. The destruction of neighbouring Junipers would be the most sure means, however.

Treating a garden (*Maman Cochet*). — Taking your numbered questions *seriatim*, we reply: 1. The manures mentioned are of rather a hot nature, the fowl-manure more particularly, and should have been stacked for some months and mixed preferably with soil. Thus treated, the twain may be liberally supplied. Leaf-mould is always valuable. 2. Sweet Peas and Carnations would doubtless succeed well. For Roses the beds should be prepared to a depth of 3 feet. 3. Almost all classes of vegetables would succeed if the soil be deeply tilled and generously manured. 4. Apples and Plums chiefly, though in so small an area some double or triple cordon trees are useful as economisers of space. We note that you prefer standard trees, though bush or pyramid trees are usually more economical and are brought earlier into bearing. 5. The terracing of the ground is quite optional, and would depend upon your desires and the space you intend to devote each to the kitchen and the flower garden. That portion near the house appears moderately level now, but if up to 530 feet altitude it was levelled up, a low terrace wall might then be thrown across with a flower-border at its base. Below that level on a lawn flower beds and borders could be arranged. You say nothing about the average depth of soil, a rather important matter.

To preserve Larch posts (*Eastfield*). — Your posts ought to be treated with creosote to make them last well, or, at any rate, the part which is to be inserted in the ground, and 6 inches or 9 inches of the part immediately above the ground. If you have no proper creosoting tank in the neighbourhood, a large trough or iron boiler might be used. Presuming that you use cold creosote, leave the posts in the creosote for a week; if you can use it heated, however, twenty-four hours will be long enough. Should you be unable to creosote the posts, paint the lower parts over with gas-tar and allow them to dry a little before putting them in the ground. Creosote or tar prolongs the life of a post for many years. If the bark were removed from the posts, the creosote would be more effective.

Tennis and croquet lawns (*T. Smith*).—According to the Rules of Tennis as published in "Lawn Tennis," by C. G. Heathcote (Badminton Library), the actual size of a full-sized lawn tennis court is 78 feet in length and 36 feet in width. Added to this there should be a clear space of 21 feet from the base-line at each end for running back, and a clear space of 12 feet from each side-line. The Rules of Croquet (see "Croquet," by Leonard B. Williams) say that a full-sized croquet lawn must be 35 yards in length and 28 yards in width, with an accurately-defined boundary line. Small grounds should be made in the same proportion, *i.e.*, any multiple of 5 by 4. The following Grasses will provide a good playing surface: Crested Dog's-tail (Cynosurus cristatus), Sheep Fescue (Festuca ovina tenuifolia) and Wood Meadow Grass (Poa nemoralis). The first-named Grass should form half the mixture, the other two kinds being used in equal quantities. Almost any aspect is suitable, but you must arrange to have the ground perfectly level. If you can manage to surround the ground with a shrubbery, it will add to the effect.

Cold frame (*H. W. R.*).—The cold frame would not do for Geraniums, so called, and which are in reality Pelargoniums, because of their tender nature and liability to damp so soon as frost arrived. In any case, frost would be fatal to them. You may, however, use it for inserting cuttings of Marguerites or bedding Calceolarias, which are much hardier. The latter, indeed, would be safe through a winter of ordinary severity. The grey glaucous-leaved edging plant known as Echeveria would winter quite well in such a frame by keeping the plants well aired and quite dry. You may also employ it for Sweet Violets for winter flowering, clumps of these plants being now fit for insertion. The Violets would require to be brought up quite near the glass by the aid of a raised bed of soil, the clumps to be firmly planted and well watered. Air should be given at all times when frost is not expected. The above-named classes of cuttings should be made in the usual way, *i.e.*, divested of their lower leaves and cut clean across below a joint, the point from which the leaves emerge. Sandy soil, made by mixing three parts of finely-sifted soil and one part sand, should be employed for the cutting-bed, and be not less than 3 inches in thickness, the cuttings to be firmly inserted therein and subsequently well watered. Bulbs of Freesias may be potted and started in the frame without plunging, or by using a light covering only. A first watering would last till growth was apparent. The usual run of Daffodils would be far better potted and plunged in the open, where they could receive all the rainfall. Tulips could be treated as recommended for Freesias, the twain requiring not much root moisture at this time of the year; or you might, by darkening the frame with bags or mats, employ it wholly for bulb-growing in bowls or fibre, as recommended in our issue for September 16 last.

Room plants (*H. E. B.*).—Rooms in which gas is burned are by no means favourable to plant-life; still, if you can keep Ferns, there is no reason why you should not be equally successful with some other plants. Perhaps the treatment given is unsuitable, for they may possibly be kept either too wet or too dry at the roots. A very important matter is to see that they do not stand in saucers of water, or, if in ornamental pots, that no water is allowed to remain therein. We keep plants in a good condition in a room in which gas is burned, but the following rules are always observed: The plants are not watered till they require it, and then, if the weather is favourable, they are stood out of doors in a pail of water till the whole of the soil is thoroughly moistened. They are allowed to drain before returning them to the jardinières, stagnant moisture being thus avoided. Those whose foliage admits of it are frequently sponged with tepid water. During a warm, gentle rain they are stood out of doors, and at no time do they get any direct sunshine. During cold weather the soil may be allowed to get a little drier than usual, and the sponging must be discontinued. When the weather is very severe, the plants had better be taken from the windows and removed to the centre of the room. If formed in a group and covered with a few newspapers, they will often go through the severest night without injury. In any selection of plants for gas-lit rooms, the first place must be assigned to the Aspidistra, of which the green-leaved form is more robust than the variegated variety. This last, however, next to the type is the best plant for growing under adverse conditions. Of other plants, omitting Ferns, may be specially mentioned Aralia Sieboldii, with large, bright green leaves; Grevillea robusta, a graceful plant with prettily-divided leaves; Cordyline congesta, with symmetrically-disposed narrow leaves; Araucaria excelsa (Norfolk Island Pine); and of Palms, Kentia belmoreana, K. forsteriana Raphis flabelliformis and Latania borbonica.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, Tavistock Street, Covent Garden, W.C.

AWARDS TO SEEDLING ROSES.

On another page will be found communications from three of our readers relating to the awards made by the National Rose Society to seedling Roses. These, selected from a large number we have received, have been prompted by a letter from our esteemed correspondent Mr. W. Easlea, which appeared in our issue for October 7, and in which he expressed his surprise that the judges refused to award a gold medal to the new variety Sunburst on the grounds that the plant shown with the blooms had been first grown in a pot and subsequently planted out. If we understand the position aright, objection was also, and in our opinion rightly, taken to the flowers having been grown under glass.

The suggestions made by our correspondents in this issue open up a wide field of controversy, but one that is undoubtedly of vital importance, not only to the Rose itself, but to nurserymen who make a speciality of Roses and also to amateurs who grow Roses for exhibition or garden purposes. Taking these communications *seriatim* as they appear, undoubtedly the most important of Mr. Molyneux's suggestions is that new Roses should be staged in three classes, and each class judged as a class. The advisability of this will, we feel sure, be appreciated by those whose duties it is to judge seedling Roses. Different standards, naturally, have to be adopted in dealing with Roses belonging to diverse classes, and the work of judges would be less irksome, and the results likely to be more sound, were this suggestion adopted. Mr. Molyneux's proposed status of judges is not quite clear. Apparently he would have five, all of whom should be amateurs. Were we sure that amateurs would never exhibit seedling Roses, this plan might work very well, and, indeed, would have much to commend it; but to adopt the society's general rule as to judges, as Mr. Molyneux apparently suggests, would mean that another set of five judges, all professionals, would be necessary to judge the few seedling Roses shown by amateurs. This is not a serious difficulty, and could be easily overcome.

Mr. Allison's proposal to grant an award of merit to those Roses which have been tried and not found wanting will, we feel sure, commend itself to all who grow Roses, and especially to amateurs who can neither afford the money nor space to test the numerous seedlings and sports which are being put into commerce every year. Such an award, granted in the way suggested, would be more valuable than a gold medal granted, as is now the case, to "Not fewer than six trusses of any new seedling Rose or distinct sport, . . . a ground plant of the variety must also be shown." There is no gainsaying the fact that there are now a number of unhonoured Roses in commerce superior in several respects to those which have received the coveted gold medal of the society. This does not cast any reflection on the acumen or integrity of the judges who awarded the gold medals. However keen a rosarian one may be, it is well-nigh impossible to tell the possibilities of a new Rose from six trusses and one ground plant; hence the necessity for some award such as that suggested by Mr. Allison. Details of his scheme would, no doubt, need some revision. For instance, we see no reason why, if sufficient good Roses are eligible, the awards granted each year should be limited to four. This might mean that some excellent varieties would not get an award.

In Mr. Taylor's letter the most important suggestion is that the National Rose Society should have its own trial grounds, and that Roses should be grown there for a season before an award was made. This would be an expensive item, and one that the society would not, in all probability, care to adopt. Nor would it be necessary if Mr. Allison's suggestion were adopted, because the same end would be attained with little expense to the society. We have devoted considerable space to this subject in this issue because we realise the important part the awards made by the National Rose Society play at present, and with the ever-increasing number of new seedling Roses these awards must, in future, be of even greater importance. In common with our correspondents, our remarks are actuated solely in the interests of the Rose and Rose cultivation and the society which looks after its welfare. We trust that those of our readers who wish to endorse or criticise the communications from our correspondents will condense their letters as much as possible. We shall be pleased to devote a reasonable amount of space to this subject in future issues.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 6.—Mansfield Horticultural Society's Meeting.

November 7.—Royal Horticultural Society's Exhibition of Flowers and Fruit at Vincent Square, Westminster. Lecture at three o'clock on "The Cultivation of the Fig in Pots," by Mr. J. Hudson, V.M.H. Southampton Royal Horticultural Society's Show (two days); Oxford Chrysanthemum Show; Birmingham and Midland Counties Show (three days); Chesterfield and District Show (two days); Scottish Horticultural Association's Meeting; West of England Chrysanthemum Society's Show at Plymouth Guildhall (two days).

November 8.—Liverpool Horticultural Association's Meeting (two days); Dorchester Chrysanthemum Show (two days); Buxton Show; Finchley Chrysanthemum Show (two days); East Anglian Horticultural Society's Meeting; Northampton Chrysanthemum Show (two days); Warham and District Show.

November 9.—Putney, Wandsworth and District Chrysanthemum Show (two days); Devon and Exeter Horticultural Society's Show (two days); Haslemere Show; Weston-super-Mare Chrysanthemum Show.

November 10.—Bradford and District Chrysanthemum Show (two days); Notts Chrysanthemum Show (two days); Leeds Paxton Show (two days); Eccles and District Show (two days); Huddersfield Show (two days); Altrincham Chrysanthemum Show (two days); Windsor and Eton Chrysanthemum Show.

November 11.—Wood Green and District Chrysanthemum Show; Burton-on-Trent Show; Poulton-le-Fylde Chrysanthemum Show.

Appointment. — Mr. Runciman, President of the Board of Agriculture and Fisheries, has appointed Mr. H. G. Maurice (lent from the Board of Education) to be his private secretary.

Opening of the International Horticultural Exhibition.– We understand that His Majesty the King has graciously promised to personally open the above exhibition. This interesting ceremony is fixed for 12 noon on May 22, 1912.

First Potato disease fine.—For failing to notify black scab disease in his Potatoes, Samuel Pye, farmer, of Rainford, was at St. Helens (Lancashire) recently fined 40s. and costs. The prosecution was instituted by the Lancashire County Council, and, it is stated, was the first of the kind in the United Kingdom. The danger lay in the possibility of the Potatoes being sold for seed, and so spreading the disease.

Apples and Pears for certificate.—The chairman of the fruit committee of the Royal Horticultural Society wishes to call the attention of those sending Apples and Pears for awards to the fact that at least six fruits of each variety are required by the rules, and that all specimens should be in good usable condition either for cooking or dessert at the time of sending. Each variety should be accompanied with full particulars as to the position in which it is grown (wall culture or otherwise), also the form of tree, and if possible its origin, with full notes as to cropping, keeping and age of the tree; otherwise the examples cannot be dealt with. For instance, it is useless to send up Apples in October and November which will not be at their best till March.

Victoria Park Chrysanthemum Show. The skill and care given to horticulture by the parks superintendents of the London County Council is amply demonstrated by the show of healthy blooms now on view in this East London park. In the event of fine weather and absence of fog, there will be a good display in a few weeks, for the plants are looking well and are extremely numerous. It is remarkable, too, that despite the smoky atmosphere of the locality, a fine show of Dahlias is made in the gardens.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Choisya ternata. — The interesting note on the Mexican Orange Flower in THE GARDEN of September 23 says, "this shrub will yield the owner a beautiful supply of fragrant blooms during the month of May," but makes no mention of its value as an autumn bloomer. The enclosed photograph, taken on October 9, shows a bush growing on a border in my garden nine miles south of Chester. [Not suitable for reproduction.—ED.] Here the Choisya is quite hardy, and lasts in good health for ten or a dozen years, when its branches begin dying off by degrees; but as it is easily increased by layering, I always have a stock of young plants. Any fairly sheltered aspect seems to suit the Choisya, and it is most accommodating in the matter of soil.—HUGH ALDERSEY, *Aldersey Hall.*

The Royal Horticultural Society and its awards.—The beautiful group of Nerines shown at the Royal Horticultural Society's meeting on the 24th ult. by Mr. H. J. Elwes was the object of general admiration. I could have spent half the day in front of it; in fact, I think I *did*. Here were to be seen size, good form of pip, trusses of perfect symmetry and colours scarcely to be expected in the Nerine, such, for instance, as shades of terra-cotta salmon similar to what one finds in Sweet Pea Earl Spencer, with many another novel hue. But what a poor and inadequate award!—a silver Flora medal. Really one begins to wonder on what (if any) system medals are recommended by the floral committee. A big trade firm may stage an enormous and imposing exhibit of things, finely grown, no doubt, but most of which we have seen off and on from our cradles, and get a gold or, at any rate, a silver-gilt medal, while here is a case of a man exhibiting a most charming and delightful set of entirely new flowers which have meant no less than twenty-five years of work and constant care on his part to nurture and produce, and his reward is a silver medal. Possibly the matter is capable of some explanation, but it was a mystery to many others besides myself. —F. HERBERT CHAPMAN.

Acantholimon glumaceum.—Referring to Mr. Jenkins' note on this plant, which appeared in THE GARDEN of September 30, I must congratulate him upon the success which has attended his efforts to propagate this plant by cuttings. I have been by no means so successful, although my method of procedure has been almost identical with his. I wonder to what extent my want of success has been due to the proximity of my plants to the smoky atmosphere of London and the consequent softer and less ripened growths engendered by the less vigorous light rays. Mr. Jenkins appears to suggest that my statement "that the plant is a tap-rooting one" is hardly a correct description of it. I may, however, be in error in so understanding him, as with his intimate horticultural knowledge he must know that A. glumaceum is a tap-rooting plant (in the ordinary gardener's acceptation of the term) if grown from seed. Obviously, no plant originating from a cutting can have such a root. It was this plant's extreme suitability for crevice planting that I was anxious to emphasise in my original note. With regard to Mr. Jenkins' remarks on tap roots being virtually "made" by the fissure depth available I am not quite sure whether I understand him aright. If, as I rather think, his suggestion is that plants which are normally tap-rooting ones only make such because they get into crevices, and that, if raised from seed where the soil needed by them is within a few inches of the surface, they would throw over their tap-rooting inclination and become fibrous-rooting ones, I fear I do not agree with him. While such treatment might result in a few more feeding fibres being thrown out along the length of the tap root (!), to expect that the tap root would be to any extent modified in length appears to me extremely doubtful, and certainly is disproved in such few instances where I have been able to make examination.—REGINALD A. MALBY.

Raising Daffodils from seed. — The questions raised by Mr. Simkins and Mr. Chapman viz., (1) as to failures in the crosses that should be successful, and (2) the infertility of certain varieties, are ones that appeal to every Daffodil hybridist, and I do not think they should continue to be dismissed by a mere acceptance of the present unfortunate state of things and a blind following of the "happy-go-lucky" system. Enthused by the productions of the Rev. G. H. Engleheart, Messrs. J. C. and P. D. Williams and others, many of us who can only give our odd times to our hobby have had to hybridise when we have had time and not when we would, and we have found that we have only had successful crosses in the proportion of about one in three. We should like to keep statistics as to weather, &c., but we have not the time, as it is as much as we can do to get our dianthering and hybridising done. Now, those who are not so pressed could, I think, from their past experience tell us something of both the questions raised, or, if they have not accurate data they would doubtless, with their time their own and with the broad basis on which they do their hybridising, be able to collect data from which accurate conclusions might be drawn. Mr. Simkins mentions the drying up of the seed-pods and no seed being found. I, as doubtless others, have sometimes found seed actually formed but apparently unable to mature. Mr. Chapman deprecates any attempt at hybridising in apparently unsuitable weather and time of day. I would not go so far as this, and I think those who only have half-an-hour before leaving for their daily occupations should not be discouraged, as I feel confident (though I have no exact evidence) that many of my seeds in my first few years of hybridising were the result of crosses made before eight o'clock in the morning, and in what might be considered unfavourable circumstances. The question of infertility of certain varieties is one for a scientific botanist, and perhaps some member of the scientific committee of the Royal Horticultural Society might be willing to receive flowers of varieties generally found to be infertile, and make examination of them and report. Mr. Chapman mentions Barri conspicuus. I tried some pollen from some

bought flowers of Barri conspicuus, and I have seedlings which I believe are the result of crossing with this pollen. The flowers when they come will doubtless help to confirm matters. Will not some of the fathers of the cult come to aid us humble followers, and so encourage those who are already hybridists to persevere and others to become hybridists by reason of some way being found to avoid the great waste of time occasioned by working "in the dark"?—C. LEMESLE ADAMS.

Haussknecht's Crocus.—Crocus sativus Haussknechtii is flowering with me for the first time this autumn. It is a pleasing variety of the old Saffron Crocus, and comes from the most easterly part of the world inhabited by that Crocus. The pale purple flowers open flat, and make a pretty appearance when open to the sun. The whole flower is pleasing, and a little group helps to give interest to the rock garden at a time when flowers are scarce.

Acantholimon glumaceum.—I have been much interested in the correspondence regarding this pretty plant which has appeared in THE GARDEN. It is one which I have cultivated for many years, and I have the original plant still, although it was removed to my present garden at a time which is rather unsuitable—about the end of April—and that some six and a-half years ago. I agree with Mr. Jenkins that it does not require to be grown in a crevice, and I have cultivated it on the edging of a border and only 4 inches or so above the level of the path. The same plant is now on the flat terrace of a rockery, and it seems to do perfectly well there. Mr. Jenkins is also correct in his statements respecting propagation.—S. ARNOTT.

A fruiting Lycium.—Your correspondent "A. D.'s" communication under the above head seems to open up a question whether the two species, Lycium barbarum and L. europæum, are not often confused in ordinary gardens. At one end of my garden I have a very old hedge of what I have always considered to be the common, so-called Tea Tree of my youth, L. barbarum, It grows rampantly, sufficient in a few years to cover a summer-house, or an arbour in the course of two or three years. It also flowers freely, and has occasionally produced a few fruits; but this year, owing, no doubt, to the lengthened period of hot weather, the fruits are much more abundant, not in such profusion as the plant referred to by "A. D.," but sufficiently numerous to attract attention. On comparing the characters of the plant with those given by Nicholson in his "Dictionary of Gardening," under L. barbarum and L. europæum respectively, he says of the first that the flowers are twin, with a purplish corolla and yellowish base, leaves lanceolate, flat and acute; and in L. europæum the flowers are described as pale violet reticulated with red veins and either twin or solitary, while the leaves are fascicled, obovate lanccolate, obtuse or spathulate. In my hedge the flowers agree with the descripton of L. europæum in colour and the red veins at the throat, and further in being both twin and solitary, but the leaves are flat and lanceolate, a character of L. barbarum, but fascicled, as in L. europæum. As "A. D." says, this last-named species "has never been seen to fruit." I conclude that my hedge must be the old-fashioned cottage garden plant. Whichever it may be, the hedge is still bearing both flowers and fruit, though May to August is given as the period of flowering.—JOHN R. JACKSON, *Claremont, Lympstone.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

POINSETTIA PULCHERRIMA.—The earliest plants now developing their bracts will require at least a minimum temperature of 60°. The atmosphere at this stage must be kept on the dry side, but the plants must not suffer for want of moisture at the roots, or they will quickly lose their leaves. A little stimulant, too, will be beneficial till the bracts are approaching full development, when manures must be discontinued and less water given than formerly. The later plants must be kept growing in a warm, light structure near to the glass. Give them plenty of feeding in the way of liquid farmyard manure, Clay's Fertilizer and soot-water alternately. Euphorbia jacquiniæflora requires similar treatment to the above.

Perpetual-flowering Carnations.—Although these plants require to be carefully watered during the winter months, they must not be allowed to get too dry at the roots, or the flowers and growth will be weak. They will also require some assistance from manures, the strength of which may be increased as the season advances and the pots become full of roots. Do not overcrowd them, and let them have all the light possible during the coming dull season. Should the glass become dirty through fogs, it must be cleaned. A minimum temperature of 45° or 50°, according to outside conditions, will suit them during he winter.

Greenhouse and Conservatory.—There will not be much difficulty in keeping these structures well furnished with flowering plants during the next two or three months. Chrysanthemums will, of course, be the predominant force for several weeks, and in consequence there is danger of this flower being overdone for decorative work. At this time of year much care is necessary in watering. The time a plant will last in flower depends to a great extent on this important work. All watering should be done before noon. Admit air on all favourable occasions, and endeavour to keep a minimum temperature of about 50°.

FLOWER GARDEN.

Planting Roses.—The ground may now be prepared for planting Roses. If the natural soil is not suitable for this purpose, an effort must be made to make it so. In some cases it may be necessary to drain the ground and mix a quantity of materials in the staple to make it porous, such as burnt garden refuse, wood-ashes, or road scrapings. Where the soil is light and poor, some substantial loam and well-rotted manure should be used when preparing the ground. In all cases the ground should be deeply trenched and well worked. Roses which are showing signs of exhaustion should be lifted and replanted after preparing the ground as advised above.

The Herbaceous Border.—The present is the most suitable time for rearranging this border. New ideas will be fresh in the mind, and if the plants are shifted before they are cut down, their new positions will be more easily decided. The past season has demonstrated the necessity of growing these plants in a rich, substantial soil, and this must be borne in mind when the work of replanting is being done.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

RHUBARB FOR FORCING.—Where it is necessary to have Rhubarb fit for use by Christmas, the crowns should now be lifted, and if the weather is not too cold and frosty, they may be left lying in the open for a few days. The crowns to be used should have been prepared as recommended in my early summer notes, by refraining from pulling any of the stalks during the growing season. A Mushroom-house, or underneath the staging of an intermediate house, or any structure with a similar temperature where the light can be excluded, will suit for forcing. The crowns should be embedded in half-decayed leaves or other material that will retain the moisture, and should be kept moist by daily damping with the syringe or water-pot. Avoid placing the roots too near the hot-water pipes.

Seakale.—As soon as the foliage decays, the crowns should be lifted and prepared for forcing. This is done by cutting off a portion of the roots, or thongs, leaving a piece from 4 inches to 6 inches long attached to the crown. These may be packed away in boxes of sand, to be placed in the forcing-house as occasion requires. The conditions for forcing Rhubarb will also suit Seakale, greater care perhaps being necessary to exclude the light and to maintain a moist and uniform temperature. The largest of the thongs trimmed from the crowns may, at the same time, be prepared for next season's plantation. Cut these into pieces about 3 inches long with a level cut across the top and a slanting cut at the root end, so that top and bottom will be easily distinguished when planting. Tie these into convenient-sized bundles and bury them in the soil secure from frost, where they can remain safely till planting-time arrives.

FRUIT GARDEN.

Mulching.—As soon as convenient, the Strawberry quarters, as well as Raspberries and other bush fruits, where digging between the lines is not practised, should have a good mulching of farmyard manure. By having this done early, the manurial ingredients have a good chance of being washed down to the roots before hard frosts set in, besides acting as a protection to surface roots.

Strawberries for Forcing.—If not already done, these should now be placed in their winter quarters, or much damage may be done to the pots by frost. Procure some newly-gathered leaves as dry as possible, and plunge the pots quite up to the rims in cold frames. See that a good space between the sides of the frame and the pots is occupied by leaves, and that the crowns are not covered. The sashes may be left off as long as the weather is mild, and air admitted freely at every available opportunity.

THE CONSERVATORY.

Forcing Bulbs.—Where an early batch of Roman Hyacinths was potted up, the pots will now be well filled with roots, and may be removed from the plunging-bed and placed in a warm house, where they will soon come into flower. An inverted empty pot placed over each will help to draw up the spikes. Paper-White Narcissus will follow these shortly if given the same treatment. Lily of the Valley may be lifted after it has had a few nights of sharp frost and placed in the forcing-house; but at this season retarded crowns are more reliable and will force into flower very quickly.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE ROSE GARDEN.

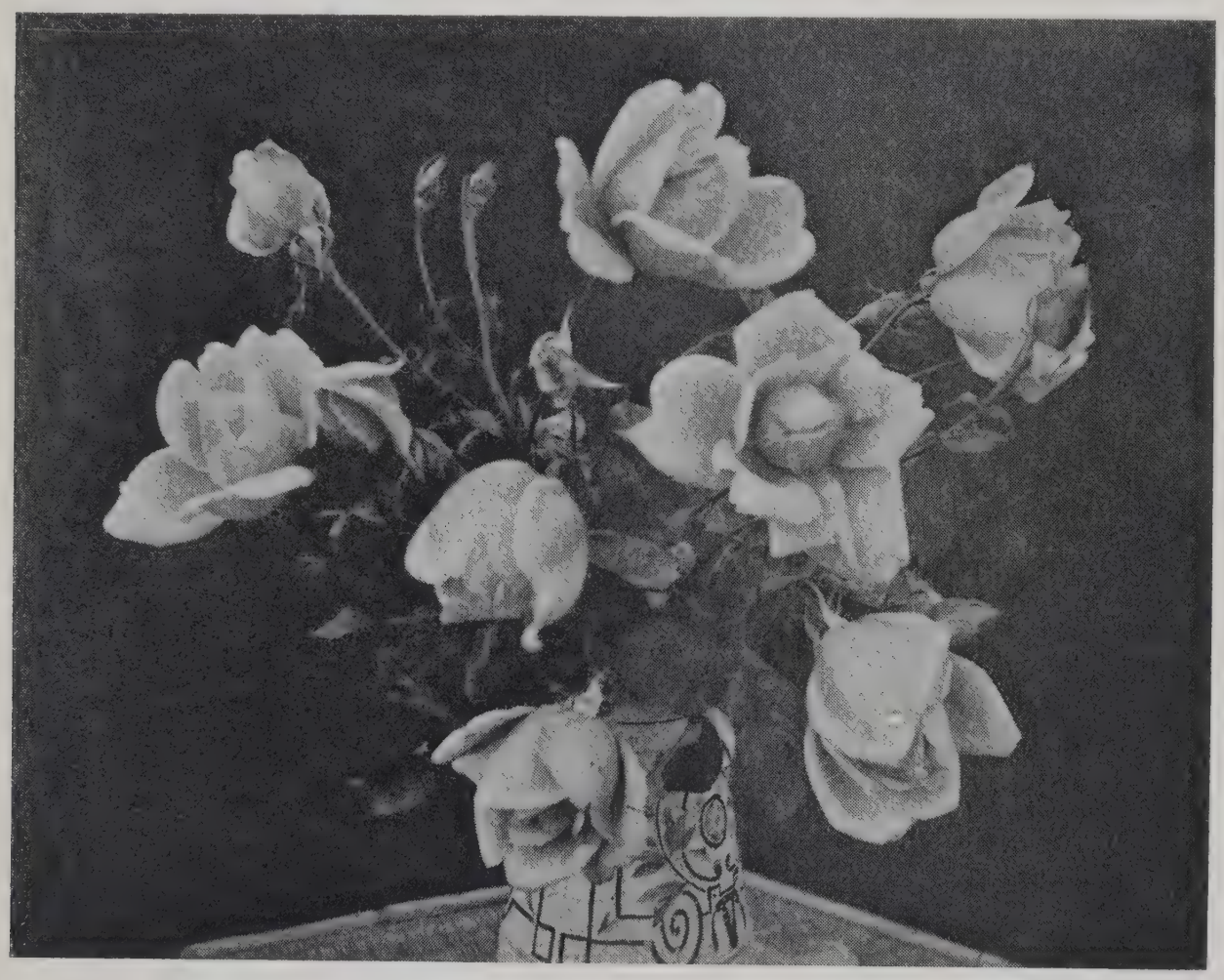
THE NATIONAL ROSE SOCIETY'S GOLD MEDAL AWARDS.

JUDGING THE NEW SEEDLING ROSES.

IT would not be an exaggeration to say that no one single subject of the many that come under its care has received so much thought and attention at the hands of the governing council of the National Rose Society as the above. More than one special committee has from time to time been appointed, and the council has adopted their reports and amended the procedure accordingly. The rules now in force are in all respects an advance on the original procedure, but I think the general feeling that they are still capable of improvement is correct—not so much perhaps the rules themselves as the method adopted of carrying them into practice. And it is in this quiet season of the year that we of the Rose world are now entering on (when the shows cease from troubling and the judges and exhibitors are at rest) that some time may, I think, be profitably spent in considering the whole matter.

I venture to suggest that any alterations that are made should be considered, first of all, from the point of view of the interests of the Rose and the Rose-loving public—the most important factors—and then from the point of view of the National Rose Society and the exhibitors, the other elements in the equation. Bearing this in mind, I think the three following alterations to the existing regulations might prove of value: 1. Reduction in the number of the judges. 2. A stricter adherence to the time appointed for the judging to commence. 3. The seedlings to be staged in *three* classes instead of one as at present. I will deal with each suggestion separately:

1. At the present time the number of judges varies from time to time between nine and fifteen—nine and fifteen if they all attend; the number is unwieldy. I think five ample, care being taken to ascertain that those appointed will attend. They would necessarily be men who know the Rose in all its phases. It should not be difficult to find five amateurs (and I write the last word advisedly) with this intimate knowledge. I know that some of the professional growers and raisers of these new Roses have more than once expressed themselves strongly that no trade or professional grower should be appointed a judge in this matter. I held for a long time to the contrary opinion, as it seemed to be eliminating the very men best qualified to judge, but I have changed my opinion; and, after all, it is only consistent with the general rule of the society as to judges, namely, that amateurs only should judge the Roses grown by the professional, and *vice versâ*. With a smaller number of judges, the work could be carried out much more thoroughly and also more expeditiously.



AUTUMN FLOWERS OF ROSE DUCHESS OF WELLINGTON. (*See page* 533.)

2. The judging is supposed to start at twelve o'clock, but it never does, and it is often nearer 1 p.m. before the whole of the judges can be collected. That this delay should take place is obviously unfair to the public waiting for admission, to the exhibitors, and, on a hot day, to the Roses themselves, and therefore nothing further need be said as to the desirability of punctuality.

3. The seedlings to be staged in three classes instead of one. I suggest: 1, Exhibition Roses; 2, Garden or bedding Roses; 3, Climbers; and not only staged in separate classes, but each class judged as a *class*. In other words, the least meritorious should be first ruled out, the others gradually reduced to an order of merit, and the awards made accordingly. This third alteration I regard as the most important of the three. The method suggested would lead to a sounder result. It would prevent the passing of a good Rose because too many medals have been awarded already (!), and also because it is the only correct method of judging any class, be it composed of seedlings or boxes of ordinary exhibition Roses.

No doubt other suggestions may occur to those of your readers interested in this subject. If so, I shall be very glad to hear of them either through your columns or direct, and I am sure if they are useful or will tend to improve in any way the carrying out of this important feature of the National Rose Society's work, they will receive every consideration at the hands of the council of that society, before whom I will see they are placed. HERBERT E. MOLYNEUX.

Brantwood, Highfield Lanes, Southampton.

MAY I, through the medium of THE GARDEN suggest for the consideration of the National Rose Society a scheme for the recognition of those Roses which have not obtained the honour of a gold medal, but which time has proved do most richly deserve some suitable mark of distinction on account of their practical worthiness. Suggested scheme: National Rose Society's award of merit to be open to Roses which have been in commerce not less than three (?) nor more than eight (?) seasons, which best fulfil the conditions of merit of bloom, merit of blooming, merit of growth and merit of hardiness. The award to be limited to not more than four (?) each year. The distinction to be due to the best Roses only, entirely unmindful of nationality or other differences. The award, with particulars of each successful Rose, to be published in the Rose Annual. All Roses awarded this distinction to have "N.R.S. Merit 19.." attached to their names in the Official Catalogue of Roses. A selection committee to be composed of nurserymen and amateurs, members of the National Rose Society, to be chosen at the annual meeting of the society and called the "award of merit committee."

The object in the promotion of this award is to assist the ever-increasing number of persons who love Roses, but who can grow only a limited number and have no special opportunities for forming a correct judgment on newer Roses, by directing their attention to the best among those issued which have undergone a trial at the hands of experts. The definitions should be: Bloom—Form, colour, fragrance and duration, but not necessarily size, as it should include exhibition, garden and decorative Roses; and want of fragrance ought not to debar such an exceptional case as say, Frau Karl Druschki. Blooming—Freedom and continuance. Growth—Vigour and healthiness. Hardiness—Ability to stand our climate as a garden Rose.

This is put forth merely as a tentative suggestion towards the formation of a scheme to fill a much felt blank. It is not intended to throw the slightest reflection on gold medal awards, although, from the lack of personal knowledge of the general character and habits of the Rose under judgment some may have in the past turned out misplaced and misleading, while most meritorious Roses are still without "a handle to their names." Besides, such a careful and authoritative distinction would, no doubt, find its place in our best trade catalogues.

The gold medal is the immediate recognition and reward of the labours and sacrifice of the raiser, an encouragement and stimulant to a healthy rivalry for fame and fortune, from which the public ultimately benefit.

The order of merit is the friendly guide to the public through the labyrinth of Roses which clamorously appeal for favour. It also casts

reflex "glory" on the raiser, especially those who from unfavourable circumstances may have missed the deserved distinction of a gold medal.

Garmondsway House, Coxhoe. T. S. ALLISON.

I CANNOT agree with Mr. Walter Easlea's remarks in your issue of October 7 on this subject. I am glad to observe that the National Rose Society is becoming more conservative than formerly so far as the gold medal awards are concerned, and I think this policy is now the right one. This award is undoubtedly the "blue ribbon" of the Rose world, and no doubt it will become much more difficult to obtain in future, for with the advent of every season the crop of novelties is a large one, and a wise discrimination is therefore necessary. Personally, I should like to see the society with its own trial grounds, and Roses should be grown there for a season before receiving any award. This particularly applies to the now popular class known as garden or decorative Roses. I consider M. Pernet-Ducher is one of our ablest rosarians, and for his work as a raiser I have nothing but the greatest admiration. I cannot see that any injustice has been done in the non-award of a gold medal to his new variety Sunburst. The schedule of the National Rose Society is quite explicit as regards the conditions under which new varieties may be exhibited for the medal award. Our home raisers have always respected those conditions, and we naturally expect our distinguished Continental raisers to do likewise. I hope that no special meeting will be called, as Mr. Easlea suggests, for the purpose of amending the rule relating to the gold medal. Doubtless M. Pernet-Ducher has done well in enriching our gardens with some exquisite Roses; but Rayon d'Or, we must not forget, received a gold medal, and we can hardly say that this is a variety one would naturally associate with such an honour. The raiser of Sunburst will have an opportunity of complying with the rules of the National Rose Society next summer, and if he does so I wish him every success. Sunburst will not be put into commerce until March, 1912, and he has therefore ample time before him.

Mid-Lothian. GEORGE M. TAYLOR.

ROSE DUCHESS OF WELLINGTON (H.T.)

THIS splendid Rose has been received with intense satisfaction by all who employ the flower for purely decorative purposes. To be able to cut quantities of blooms like those illustrated, and in mid-September, too, is a sufficient testimonial to its value, and all who have long felt the need of a good deep sulphur yellow Rose will appreciate it keenly. If there were no such Rose as Rayon d'Or, Duchess of Wellington would have made greater headway. As it is, its popularity is assured, for we have a variety that may be grown by all, and one of the most intense coppery saffron yellow sorts in the whole collection. The blooms from which our illustration was prepared were growing close by fine masses of Arthur R. Goodwin, another sort that is winning much praise as a garden variety. A very beautiful arrangement for a bed of Roses would be to plant these two together, placing Duchess of Wellington in the centre with a circle of Arthur R. Goodwin on the outside, and some half-standards of Rayon d'Or above as soon as the latter is available in that form. P.

TREES AND SHRUBS

A RARE CHINESE SHRUB.

(ELSHOLTZIA STAUNTONII.)

THE existence of this plant in a wild state in China has been known for more than fifty years, several collectors having sent home dried specimens. The cultivation of the plant in this country is of quite recent date, the specimen exhibited at the meeting of the Royal Horticultural Society on September 26 from Aldenham House being, I believe, the first time it has been shown in this country. Elsholtzia Stauntonii closely resembles E. polystachya from the Himalayas; in fact, some botanists say it is a geographical form of the Indian plant. The behaviour and appearance of the plant at the present time suggest that it is of a half-shrubby character. It belongs to the Natural Order Labiatæ, and the leaves when bruised give a Mint-like odour. The present height of the plant is 4 feet to 5 feet. The flowers appear in September, lasting well into October. They are very freely produced in long, terminal inflorescences. The shade of colour is difficult to describe, pink shaded with magenta perhaps fitting it best. Cuttings may be readily rooted in a close frame in autumn. The valuable late-flowering character of this Chinese Labiate should ensure it being grown extensively in our gardens. H.



FLOWERING SPRAY OF A NEW SHRUB FROM CHINA, ELSHOLTZIA STAUNTONII.

INTERESTING AUTUMN SHRUBS AND TREES.

CARYOPTERIS MASTACANTHUS.—Not having noticed any remark upon this autumn-flowering shrub in THE GARDEN has induced me to pen a few remarks concerning it for the benefit of those readers who perchance are not acquainted with the plant and its striking qualities. Indigenous to China and Japan, this free-flowering shrub has been the most striking object in our shrubberies for the past few weeks, and wherever a plant is placed it is readily observed by the numerous spikes of rich blue colour, which remain in a fresh, pleasing condition for a considerable time. Here we have plants that have been established for a number of years, though we give a slight protection at the base every winter, preferably of cinder-ashes. The plant is readily propagated by cuttings taken in August, selecting those, if possible, that are free from flowers. Select a warm, sunny position, where the plant may be allowed to remain free from other growth, when a good specimen will soon be obtained.

Rhus Toxicodendron.—Much might be written at the present time upon the varied and beautiful tints now taken on by many of our trees and shrubs, and this season especially these have been more than marked. Though it is difficult to say which is really the best, the autumnal colours assumed by Rhus Toxicodendron are beautiful in the extreme. Many people fight shy of this subject, and rightly so, on account of the poisonous properties that affect some people and cause skin irritation. Here we have used the plant in various positions for a number of years without any mishap, and as a subject for clothing a pole in the shrubberies at this season it has no rival. In almost every position the leaves are equally brilliant and pleasing. For a wall it is also well adapted, and where a collection is grown and variety is required, space should be given this plant. Commonly known as the Poison Oak or Ivy, it is frequently met with, I believe, in Canada and the States, and care should, of course, be exercised when handling the plant.

American Thorns.—During the past few years, through the generosity of Professor C. S. Sargent of the Arnold Arboretum, Mass., U.S.A., we have received several consignments of seedling Thorns representing a large number of species, which we have grown on into standard form, and the earliest arrivals are now well-established plants, many of them being from 6 feet to 8 feet high, with good heads, and at no period have they been more beautiful than this autumn. The ones referred

to in particular are planted alternately with many and various species and varieties of Oaks beside woodland and grass walks, with plenty of room for each plant to develop. Apart from the rich and varied hues that the foliage assumes, these increase in interest each year as the plants grow old enough to flower and perfect their fruits and exhibit their true characteristics in foliage and spines. For park planting few trees are more adapted. Their thorough hardiness and free growth in almost every soil when planted as isolated specimens or groups render them equally attractive. To promote a free growth and standard form, the lowest branches should be taken off each year when the tree is dormant, and for a few seasons support each one with a stout stake until the desired length of clean stem is secured. To enumerate all of the species would be impossible, but a few of the very best now portrayed with their rich autumn tints are Cratægus prunifolia (a perfect picture with a Scots Pine in the background, the leaves a glowing scarlet), C. nemoralis, C. colorata, C. maineana, C. gemmosa (a dark bronze), C. leiophylla, C. arcuata, C. Dunbari, C. champlainensis (beautiful yellow), C. Eamesii, C. Dodgei, C. Calvinii, C. Smithii, C. ellwangeriana (a noted species, very fine, with yellow and bronze foliage in autumn), C. fecunda (small foliage and very effective), C. aprica, C. illinoiensis, C. crudelis, C. cuprea (finely coloured, with large fruits) and C. macracantha, the latter being easily distinguished by its immense, strong spines.

Elstree, Herts. E. BECKETT.

WISTARIA FRUITS.

YOUR readers may be interested in the accompanying photograph of a fruiting spray of Wistaria multijuga. The brilliant sunshine we have experienced during the past summer is, I suppose, responsible for the plants fruiting more freely than usual this autumn. There are only a few pods on Wistaria chinensis, but all three forms of W. multijuga—lavender, white and rose — are fruiting fairly freely. The fruits resemble very much those of the Runner Bean, and to this fact is no doubt due the common name of the Kidney Bean Tree, which is sometimes applied to the Wistaria. The pods are 6 inches to 8 inches in length, dark green in colour and covered with soft silky down. Only an average of about three seeds ripen in each pod. These are flat and round, half an inch in diameter. Only a few flowers on a truss are followed by the pods in any case, and I do not remember having seen more than four at any time. The Wistarias evidently fruit freely in Japan, as I find on reference to a Yokohama catalogue that seeds are offered at a very cheap rate. I propose sowing some of the seeds; but the present methods of propagation—grafting and layering—no doubt produce flowering plants in a shorter time. H.



A SPRAY OF WISTARIA MULTIJUGA BEARING SEED-PODS.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

VACANT GROUND. — The month of November is one of hard work in the majority of gardens, for there is then a considerable area of vacant ground which has to be dug or trenched in preparation for next season's cropping. Precisely what form of mechanical cultivation will be adopted necessarily depends upon individual circumstances and conditions; but no good cultivator will rest contented until he has moved the soil of his garden to its utmost depth. In some instances the land may be so shallow that thorough digging will ensure the desired result; but this will not be generally the case, and one is glad of it, for 12 inches of friable soil will not produce the finest vegetables, no matter how favourable other things may be. Bastard-trenching to a depth of 20 inches or more is excellent, and if it is persisted in for a few years will so much improve the condition of the subsoil as to render the ideal of soil cultivation—full trenching—possible. In manuring, as in working, local conditions must be in control; but in all gardens there ought to be a plan showing clearly where each crop will be located, as this enables the grower to take advantage of sites in which there will remain sufficient food from the preceding plants, and at the same time show him where the gross-feeding kinds are to go, and where, therefore, he must be most generous with his manure.

RHUBARB AND SEAKALE.—The production of early Rhubarb and Seakale presents no difficulties which are not easily surmounted by the amateur, provided that there is healthy, vigorous stock in the garden upon which he can draw for clumps of the former and for crowns of the latter. The clumps of Rhubarb lifted should always be submitted to a course of freezing before going indoors, because this ensures the complete rest which Nature deems desirable, and enables a finer crop of excellent stalks to be secured than would otherwise be the case. In neither instance is a high temperature desirable, but there must be complete darkness, with facilities for pleasant moistness.

ASPARAGUS TOPS.—The clumps beneath the surface of the soil will by this date have received all the nutrient properties that the stems are likely to pass down to them, and the sooner the latter are cut off and burned the better. Directly this is finished, let the bed be wholly cleared of weeds, stir the top soil, and spread a generous dressing of manure, a mixture of manure and leaves, or of the latter alone, according to convenience. The application of salt, to which so many amateurs turn with a view to the suppression of weeds, must always be regarded with suspicion; it certainly should not be given in the winter months, and not at all on soil that is already close and cold

ROOT CROPS.—If the whole of these, with the single exception of Parsnips, have not yet been lifted and stored, the task must be accomplished forthwith, or it is practically certain that there will be serious losses from frosts. Spare no care to lift every root in perfect condition; and with Beet do not forget that the tops must not be cut off close to the crowns, as is done with the other kinds, since such a course would involve bleeding and consequent ruination of the roots. Store in heaps with alternate layers of sand or fine, dry soil, and never attempt to wash the roots, as the soil adhering will assist materially to keep them plump and fresh. Parsnips may be similarly dealt with; but where there are facilities for covering the bed so that it shall not become so hard frozen as to prevent lifting when a supply is wanted, this course ought to be adopted.

SEED POTATOES.—The first opportunity should be seized upon to go over the stock of Potatoes and choose those tubers which are required for seed. These must be sound, free from any trace of disease, shallow in the eye, and of perfect shape according to the variety. The most generally useful size is a set weighing 3oz. H. J.

THE FLOWER GARDEN.

COTTAGE TULIPS.

I WONDER what the Cottage Tulips have done to Mr. Weathers. This gentleman has very recently brought out a large and interesting volume entitled "The Bulb Book," and in it he has devoted many pages to Tulips, but beyond the bare mention that there are such things as "late-flowering" varieties, no notice is taken of them. I am surprised at this in an up-to-date book, because I believe these exceptionally beautiful flowers are at last coming to their own. After a long season of cold neglect they are now beginning to take their proper place in our gardens, where they may brighten the herbaceous borders, or else form masses of brilliant colour in beds by themselves, at a time when they are very much wanted. All the dealers with whom I have lately talked tell me that the demand for them is steadily increasing each year, and that 1911 is the high-water mark of their sales. The fly in the ointment is that where summer bedding is practised they are somewhat in the way of the new would-be occupants, and that their grubbing up and putting in by the heels entails a considerable amount of labour at a particularly busy season.

It cannot, however, be too widely known that this may be done, and that if the operation is done with ordinary care the bulbs do not suffer to anything like the extent that might be expected, and that, when they are finally taken up some six weeks or so later and dried, they may be stored away in a dry place ready for planting again in the autumn. This is most successfully done at Ball's Park, Hertford; and as I saw the results of this system only this last spring, I can confidently recommend it wherever it may be deemed necessary. While on the subject of management, I should like to say that in heavy soils it is almost imperative to lift all Tulips every year, and that even with light soils it certainly pays in the increased vigour of the plants to do so.

The old florists always planted on or about Lord Mayor's Day, and for the usual garden purpose of a display of bloom the following spring they were about right. There is no advantage in having the leaves above ground too soon, for bad weather and slugs do not improve them. I have on more than one occasion planted very much later. In 1909, after waiting for weeks for some fine, dry weather, in sheer desperation I planted a large number a week before Christmas in what could only be called by courtesy "soil." It was more like lumpy, sticky mortar, and one could not spread the spadefuls, but they remained just as they were turned over. The sequel astounded me. I have never had a better display of bloom than I had from these very bulbs the following spring. This experience almost compels me to think that it does not very much matter how, when and where you plant Cottage and Darwin Tulips, if only the bond of sympathy is there. Is there, do you think, anything in a suggestion I recently saw, viz., that flowers will grow for some people and that they will not for others?

In naming varieties for the garden, it will be convenient, even if it is not strictly accurate, to include those species which in their general appearance are like the Cottage. Such an one, for example, is mauriana, a late flowerer, rich crimson self, very lasting and very effective. Another is the pure white, dainty-looking Didieri alba. The selection that follows has been made on the same lines on which I made the early Tulip one a fortnight ago, viz., new and uncommon, rather than old popular favourites. Here, then, is my list: Inglescombe Yellow, often spoken of as the yellow Darwin, a new variety of a beautiful shade of soft yellow, rather late to flower, and of medium height. Scarlet Emperor, both early and late of a brilliant shade of red, with a yellow base and black anthers; it has now become very much cheaper, and should be in every collection. John Ruskin, a large, egg-shaped flower of an indescribable blend of mauve, rose and yellow, extremely beautiful, and always singled out for special notice in the largest collection. Pompadour, a dwarfish grower of a deep blood red shade, very rich-looking. Goudvinck, which is synonymous with Barr's Golden Bronze, a magnificent, tall, golden bronze, edged deep yellow; very handsome and effective. I would couple with this Clio, a Tulip of much the same habit, but of a paler tone of yellow. Marksman, very bright orange scarlet, of medium height. The President, a distinct flower of a beautiful shade of orange, as the introducers say, "in a class by itself." Beau Brummel, a smart, well-set-up flower of a brilliant scarlet; in my opinion one of the best of Wallace's new introductions. Lady of the Lake, a chaste flower, pale lemon, shaded primrose. Zomerschoon, a real aristocrat, the oldest and most lovely of all the broken Cottagers, a rich salmon rose, striped creamy white. Beauty of Bath, a larger and paler edition of Fairy Queen. Louis XIV., an immense bloom of deep purple and bronze, tall, stately and handsome.

In the foregoing selection there is only one broken variety. I find the type is not a very popular one, and my opinion is fully endorsed by Mr. Hugh Dickson, of Messrs. Alexander Dickson and Sons, Belfast. His firm have made rather a speciality of them, and their famous "Temple" exhibits always contain a fair proportion of the best. Undoubtedly some have a poor constitution, while others are too small and insignificant; but, given good-sized flowers and tall plants, there is no reason why some should not be tried. Six of their best and most popular are: Bizarres, General Murray, Montrose and Unique; rose byblœmen, Butterfly; violet byblœmen, Minerva; and "Rembrandt" (=broken or rectified Darwin), Ard Righ. To these I would add Goldmine, an exceedingly rich orange brown and yellow; Admiral Kingsbergen, a fine massive crimson and white; and Summer Beauty, an effective tricolor having lavender, rosy pink and cream markings.

All the long-stemmed ones are excellent for cutting, but there are a few which are super-excellent on account of their lightness of appearance. These are the above-named Didieri alba, pure white; Picotee, white-edged and flushed rose; retroflexa, pale yellow, the best of all for this purpose; Marjoletti, a species Tulip, cream, with rose blotches on the petals, exquisite; La Merveille, salmony rose, shot with orange; Mrs. W. O. Wolseley, pointed flower, dark rich crimson; Annie, a distinctly deeper shade of yellow than Parisian Yellow: and sylvestris, the lovely yellow wild Tulip.

JOSEPH JACOB.



A BEAUTIFUL GROUPING OF ASTER ROBERT PARKER. (*See page* 536.)

A BORDER OF MICHAELMAS DAISIES.

ONLY a few years ago Michaelmas Daisies were a sadly-neglected race of plants. In those days they were hardly considered worthy of special attention, and were seldom spoken of under their more dignified but less appropriate name of Perennial Aster. In a few years there has been a decided change and the Michaelmas Daisy has leapt into public favour. It has now come to be regarded as the best of flowers for autumn effect. Many hybridists have shown their skill in working among these flowers, for wonderful improvements have been achieved. At the present time there is sufficient diversity in colour, form and habit to provide one with a border of Michaelmas Daisies in an unbroken succession from August till late in November. Nothing is easier to cultivate, but it is essentially a plant to group in bold masses, so that the flowers are produced in effective clouds of colour. By the careful selection of varieties ranging in height from 7 feet or 8 feet to dwarf and low-growing varieties in the foreground, a border of Michaelmas Daisies is a garden feature not easily overrated. The picture on the previous page shows a clump of Michaelmas Daisies planted against a dark background of large Yew trees. Such a background shows off the flowers to the best advantage, and it must not be forgotten that few flowering plants are better suited for planting under partial shade or in the foreground of a shrubbery. The variety illustrated on page 535 possesses the truly English name of Robert Parker. It is a very free-flowering variety, growing from 4 feet to 6 feet in height. The flowers are large and light blue in colour, and as it is a variety that has been in cultivation for a few years, it may be obtained at a very reasonable price. Like all other varieties, it is eminently suitable for suburban gardening where many other plants fail. Even the baneful influences of rain and cold are but slightly felt by the hardy Michaelmas Daisy.



THE NEW ASTER AMETHYST WHICH GAINED AN AWARD OF MERIT AT THE RECENT MEETING OF THE ROYAL HORTICULTURAL SOCIETY.

THE FRUIT GARDEN.

FRUIT TREES IN TOWN GARDENS.

NO doubt many readers of THE GARDEN are town-dwellers who, like myself, possess anything from a sixteenth to a quarter of an acre of garden. I have devoted nearly the whole of my patch to fruit culture. The trees are still young, but they promise well. I pen a few notes which may be interesting. The number of Apples and Pears per tree during the several years are shown in the table following:

Name.	1906	1907	1908	1909	1910	1911
Irish Peach	—	—	2	2	10	11
Worcester Pearmain ..	—	5	10	7	20	24
Stirling Castle	—	—	—	7	2	1
Ribston Pippin	—	—	—	1	4	nil
Lane's Prince Albert ..	—	—	—	2	29	16
Newton Wonder	—	8	1	23	10	26
Gravenstein	6	10	4	—	—	—
Lord Suffield	12	18	44	—	—	—
Pear Emile d'Heyst ..	—	—	—	nil	nil	8

The Gravenstein and Lord Suffield Apples were replaced in 1908 by more suitable varieties, Lord Suffield commencing to canker badly and the Gravensteins being under size. The Irish Peach was planted the same year, a tiny two year old tree, and commenced fruiting the following year. This variety requires special treatment as regards pruning in the young stage, owing to its habit of fruiting on the tips of the shoots. The shaping of the tree should, therefore, be taken in hand at once, and as soon as the required number of branches have appeared; the tree, in my opinion, is then best left to itself.

Worcester Pearmain, though not a really first-class dessert Apple, is, nevertheless, a sterling variety. If grown for ornament alone, it is worthy of a place in every garden. The flowers are large, of a distinct yellow hue, and the fruits are a bright crimson in autumn. Stirling Castle, if grown on the Paradise stock, seems to put all its energy into flowering and fruiting, and if new wood is wanted, must be manured, top-dressed heavily, or coaxed into growth in some other approved way. I applied a good barrow-load of short manure to the tree in my garden last autumn, and had the satisfaction of seeing rather more than 1 foot of new growth this season. Ribston Pippin grows and flowers well, but appears to be a shy bearer. It should be watched closely for American blight. Lane's Prince Albert is a splendid variety for garden purposes. Many of the fruits gathered from it averaged 9oz. Newton Wonder is a remarkably sturdy variety. The fruits this year were very highly coloured on the sunny side, and were of large size. The soil here is a very stiff loam on a clay subsoil. The average age of the trees when planted was three and a-half years.

W. H. BOLTON.

8, Ash Grove, Beverley Road, Hull.

THE TOWN GARDEN.

SWEET VIOLETS.—Whether in gardens large or small, in cottage or mansion, there is no easily-grown flower of greater popularity during the winter months than the Sweet Violet, none more prized for rich colouring or sweet perfume. But prized as it may be, it is the more infinitely so when the thing itself is home-grown, and when even the smallest posies may be culled at intervals from the garden frame.

MAKING A START.—At this season of the year those who have attempted the cultivation of the Violet will have already placed their plants in frames for the winter, and not infrequently one of the greatest errors begins here. Often enough the amateur cultivates a Cucumber or Melon plant in a frame, and, catering for their requirements, provides a bed of rich soil. Others of more elaborate ideas prepare a hot-bed of leaves and manure, and with but a modicum of soil over all, the Violet plants are placed therein. Now this excessive soil richness promotes gross leaf production, and is directly or indirectly responsible for many failures.

A MUCH BETTER PLAN is to ensure a degree or two of extra soil warmth by drainage; that is to say, arrange a 6-inch-deep bed of coal-ashes in the frame, and having trodden it as firmly as possible, introduce a similar amount of ordinary garden soil and set the Violet plants therein. During the planting process the soil should be trodden quite firmly about the roots, since the opposite condition of looseness—which, by the way, is that usually met with—is often enough responsible for both grossness of leaf and that sponge-like wetness of the soil which quickly promotes sourness. Firm soil about the roots of the plants is, therefore, a matter of importance.

IDEAL FRAME CONDITIONS.—Were I asked to give my views as to what constitute ideal frame conditions for the Sweet Violet at this season, they would be as follows: A bed of leaves and fresh stable manure in equal parts of a foot in thickness when made up and firmed together, and above this a 6-inch thickness each of ashes and soil in the order given, and made quite firm. Such an arrangement provides a little warmth and perfectly congenial conditions about the roots of the subject; and the Violet asks for little besides, unless it be a position quite near the glass and freedom from stagnant air. At the same time, it should be pointed out that the Violet can be well flowered in ordinary frames that are warmed sufficiently to keep out frost.

SECURING STOCK.—At the time of framing, or even a little later, young runners appear on the plants and have to be removed; and for ensuring stock for another year there is nothing so satisfactory as these when treated as cuttings in the usual way. Cuttings so small, however, rarely appeal to the beginner in gardening, a big stool, or stock plant, being more to his mind. Yet the small runner one has in mind is infinitely superior in every way, and, when rooted and planted out, will quite outstrip the larger example.

S. N. N.

GARDENING FOR BEGINNERS.

PLANTING HARDY FERNS.

AN opinion seems to prevail that the exotic Ferns are far more interesting and attractive than our native Ferns; but is this opinion really justified? Those who are familiar with the hardy Ferns which are natives of Great Britain and North America never fail to extol the beauties of the many species that do so much to make our gardens really interesting. Hardy Ferns are not in the least difficult to manage, provided properly-prepared quarters are made in the first instance. These plants will grow most satisfactorily in beds, borders and in the rock garden, and those who admire the charming variety obtainable in the hardy Ferns are strong in their opinion that no rock garden can be considered complete without a good representation of these beautiful hardy plants. What is more refreshing to the mind and eye on a hot summer's day than to observe the fresh green fronds of these hardy Ferns luxuriating in conditions that hardly seem credible? Hardy Ferns, when grown in the rock garden, require much less attention than when grown in pots. The watering-can is not so often employed, and the replanting of this subject is less frequent than repotting plants grown in pots.



1.—THE CORRECT WAY TO PLANT A HARDY FERN.

To grow the hardy Ferns successfully, some consideration should be given to the soil in which they are to be planted. The soil should be what is termed rough and open, and the rougher portions of the soil should be used for the base of the mounds or pockets in which the roots are to be planted, reserving the finer soil for placing round about the plants. For outside rock ferneries the soil should consist of loam, leaf-mould, peat and coarse sand, or clean road grit, in equal quantities, and this material should be well mixed before placing it in position. For the guidance of the inexperienced it may be as well to remind them that the beautiful Scolopendriums (Hart's-tongues) do better when a little crushed oyster-shell or old mortar rubbish is added to the soil, and the dainty Blechnums must have no lime whatever. For this reason these two Ferns should be kept well apart. Extra leaf-mould should be given to the Polypodiums, as this species seem to appreciate this light material in the compost, and in the case of the stately Osmundas an extra quantity of peat is most desirable. While the writer advocates the preparation of the compost mentioned because of the greater chances of success to be achieved by its use, the beginner must not imagine that hardy Ferns cannot be grown satisfactorily in any good garden soil, provided it is well prepared and due consideration given to its proper drainage. Provision must be made for the carrying off of surplus moisture, and for this reason the base of the mound or ridge raised for the rock fernery should be dug out and filled in with crocks in the form of broken bricks, tiles, stones, or clinkers, and these covered with turves or anything to prevent the smaller particles of soil falling into the drainage and clogging it. The rock fernery may be made up of the roots of old trees, sandstone, burrs, large stones, &c., and these should be disposed in a natural way. In the construction of a rock fernery, the general outline should take the form of a series of terraces, varying according to the size of the rock garden. The burrs or stones, &c., should be made quite secure, and, most important of all, there should be a free root-run for the plants if they are to do well. All too frequently the last-mentioned fact is ignored. The planting of hardy Ferns is usually done in the spring, April being selected as the most desirable period for this initial work. Wild Ferns are generally planted at this period, and beginners should bear in mind that the planting of these wild specimens during the resting period, or just as they are about to unfold their fronds, is the correct season. When the hardy Ferns are obtained in pots, they may be planted at any time, and the present seems most opportune. In planting hardy Ferns, due consideration must be given to the size to which the plants will grow. Their habit of growth, too, must be considered, and if these simple points are carefully observed, there will be little risk of the plants becoming overcrowded. The secret of successful planting is to arrange the plants so that each specimen in the rock garden may obtain its full share of light. For this reason the height and habit of each plant must receive due consideration. The Hart's-tongue (Scolopendrium vulgare and its varieties) and the numerous kinds of Polystichum, Lastrea and Athyrium are excellent for the base of a rock fernery or for planting among the burrs and stones, &c., working up in this way to the larger-growing plants. In Fig. 1 an example of how to plant an individual hardy Fern is shown. This is the well-known Polystichum angulare foliosum. Observe how the crown of the plant is adjusted just above the soil, and the grace and beauty of the plant as a consequence. Fig. 2 represents just a small section of a rock garden in course of formation in a suburban garden, and will give the reader some idea how to proceed.

We are indebted to Messrs. H. B. May and Sons, Upper Edmonton, for the opportunity of photographing these hardy Ferns, and readers will remember the wonderful gold medal group of hardy Ferns exhibited by this firm of specialists at the great show at Olympia in July last, when the British public were made aware of the infinite variety of plants that are now obtainable.

D. B. CRANE.

BROAD BEANS.

THE Broad Bean thrives in a naturally heavy soil during the spring and early summer months. Early Beans are always welcome, but I strongly advise beginners not to sow seeds before Christmas in soil that is clayey and of a retentive nature. This advice is given because, usually, the plants raised in such soil during the cold, dull days of winter get stunted, and they rarely make satisfactory headway when the warmer weather comes in April. It is quite different with Beans raised from seeds sown in October and November in a naturally light soil, especially that of a dark colour, because it is warm and absorbs the heat from the sun, water does not lodge in it, and consequently the young plants are grown in circumstances, at



2.—METHOD OF PLANTING A SMALL FERNERY SURROUNDED BY ROCKS

this season of the year, which are decidedly favourable to them.

Owing to the action of frost on soil in wintertime, it is advisable to sow the seeds at least 3 inches deep. Frost causes the soil to swell and lift up, and both roots and bulbs in it which do not have a firm hold upon the subsoil are raised nearer the surface after each thaw. Sow the seeds in single rows 18 inches apart, and 6 inches from seed to seed in the rows. The soil must be made moderately rich by digging in some old, well-rotted manure, thoroughly mixing it with the soil generally, and not merely putting it in in bulk in trenches. Do the work while the ground is fairly dry, and do not tread upon the soil afterwards. Beck's Early Gem and Green Windsor are two suitable varieties to sow now, though others will also succeed very well. If rats are troublesome, they must be trapped before any serious damage is done. SHAMROCK.

SWEET HERBS AND HOW TO USE THEM.

IT was a real pleasure to meet with the practical little article on "Cutting and Drying Herbs" that appeared in THE GARDEN of September 30. Considering the great value of herbs and the deplorable neglect of them in modern cookery, the paper was doubly welcome as a sign that their use in kitchen and stillroom is in some way towards revival. The much larger number of useful herbs now advertised in tradesmen's catalogues is another encouraging symptom. The herbs mentioned in the article are every one of them indispensable for cooking. They are Lamb Mint, Sweet Marjoram, Sage, Tarragon, Savory and Basil. A few supplementary remarks about one or two of these may not be found unwelcome.

There are two methods of keeping Mint for winter use. One is to dry it, then crumble and store it in a corked bottle. The other is simply to put a handful of green Mint in a good-sized jar or bottle and fill it up with vinegar. If ever Mint sauce is wanted in a hurry, either during winter or early spring, and the garden is empty of the plant, this Mint vinegar will be found most useful.

Tarragon can be treated in the same way, and that which is kept in vinegar is, in point of fact, more often called for than the dry. A leaf of Tarragon, it may be added, is a great improvement to Caper sauce.

It is very advisable to grow Lemon Thyme as well as common Thyme. The flavour is delicious and often wanted in cooking. If "out" of Lemons, Lemon Thyme can take its place in many cases, notably in stuffings and forcemeats.

In the making of clear and gravy soups, nothing gives them such a delightful flavour as a bunch (or "bouquet," as our forefathers called it) of sweet herbs thrown in at the last boiling up and allowed to remain in from five to fifteen minutes, then lifted out. The bunch should consist of a few sprigs of Lemon Thyme, a spray or two of Chervil, some spikes of Chives, and a stalk or two of Summer Savory with its sweet leaves. This flavouring is quite independent of and additional to the vegetable flavours of Carrot and Turnip obtained when the stock is made. People who are unaccustomed to the flavour of fresh sweet herbs used in this manner invariably remark upon it and say, "What a pity it is so rarely enjoyed!"

In making white soups, such as Potato or Haricot Bean soup, the green herbs used should be chopped as fine as possible and added to the soup, while on the boil, five minutes before serving. They should be left in. The best herbs to put in Lentil or Pea soups are Mint and Marjoram; and for the white soups, Lemon Thyme, Summer Savory, Chives, Chervil, a small spray of Parsley, and Basil if liked; but this must be used with caution—a leaf may suffice. Soups in which sweet herbs have a place, besides being much pleasanter to the taste, gain in becoming more wholesome, nourishing and digestible. Good soup can be made with little else than herbs and a portion of milk. The following recipe for *Soupe aux herbes* was given me by a Frenchman: "Hacher menu, Oseille (Sorrel), Ciboule (Eschalot), Cerfeuil (Chervil), un brin de Persil (Parsley) and Menthe (Mint). Faire bouillon quelque minutes dans une pinte de lait, un bon morceau de beurre, sel; laisser bouillir une minute et verser sur quelque branches de pain dans une soupière." As my friend said, "C'est simple comme bonjour." Sorrel should be found in every herb garden.

In winter we cannot get quite such charming savours as in summer, but we do the best we can by blending dried Lemon Thyme and Summer Savory. There are very few months of the year when Chives and Chervil cannot be had, for they are nearly, if not quite, as hardy as Parsley, and we all know a very little protection keeps that going.

With regard to Savory, it may not be generally known that two kinds of it are grown. One is Winter Savory, a somewhat woody little shrub (perennial) whose merit we would not decry; but Summer Savory, an annual, is much sweeter and more tender. All cooks who know this herb set great store by it, and are sorry when it dies down. It grows easily from seed, and when you want a spray to use, you just pull up the little plant, root, stem and all. It is a good plan to bottle some dried Thyme and Summer Savory together.

Of Basil, also, there are two kinds, Sweet Green and Bush Green Basil, both annuals. The latter grows into pretty compact little bushes. The leaves of both kinds are so powerfully pungent that a little of them goes a long way. Not much need be saved and dried, whereas of Mint and Marjoram you can never have too much. In making real turtle soup, Basil is an absolutely necessary ingredient. Bruise it, and you will at once perceive the aromatic fragrances of Pepper, Cloves and all the warmest spices you can think of. French cooks delight in it for *ragouts*. They did so a hundred years ago, and are just of the same mind to-day.

Of Sage I need say no more than to advise everyone to keep plenty of it by them. Fresh or dried, it is as valuable medicinally as it is in cooking.

FRANCES A. BARDSWELL.

BULBS FOR THE ALPINE GARDEN.

THESE subjects are worth the attention of all lovers of rock and alpine gardens, as their presence during winter and spring, peeping up here and there, forms a nice feature of colour, and there are many that are extremely interesting. The little Narcissus minimus ought to be planted at once, as in mild seasons they begin to peep through the soil in a sunny spot in the late days of January, and if these are planted in clumps of about a dozen in different spots, one gets a very charming succession. For instance, now (October 4) we have several in flower. Sternbergia lutea is a splendid mass of colour; then there are Colchicums in variety and Cyclamen, all in splendid flower and all from bulbs. The Crocus species are exceedingly interesting, and these should be planted at once. Snowdrops should also be planted early to be successful. All of these are better in small clumps. Ixias are hardy in sheltered plots near the base of rocks, and are very pretty. Iris stylosa is a gem, and flowers early. It likes high and dry sheltered positions, and should at once be planted. I. cristata and I. persica should likewise be planted as soon as possible. These are gems, and, dotted about, take but little room and afford endless pleasure. The slugs are very fond of these, and must be trapped as soon as the growths are beginning to push through. The Mariposa Lily (Calochortus) does very well in sheltered nooks in fine soil. There are some very brilliant colours among these, and the flowers are large for such small bulbs. I have grown these over one hundred miles further North with success, so there is no doubt about their doing outside. Then we have the Jonquils, both double and single. These are very striking and delightfully fragrant. There are several Narcissi in addition to the early one mentioned at the commencement of these notes, and a good early one is pallidus præcox, which looks very charming popping up under a shrub or from behind a boulder. A few clumps of such varieties as maximus of the Pyrenees, Victoria and King Alfred, should be planted; but these large varieties must have some good food, or they fail to answer expectation. Ordinary alpine soil will not be good enough. Narcissus cyclamineus is very pretty, and should be planted in several positions to ensure succession. There are some interesting hybrids between this and minimus which are very pretty. N. triandrus and N. t. alba are both pleasing, well adapted for conspicuous positions, and last a considerable time in flower.

Scillas are very charming. Good groups of these are effective. Scilla sibirica and S. s. alba, S. bifolia, S. verna and the late variety, S. italica, are most useful. These do well in towns and smoky places, and endure many hardships. Grape Hyacinths are also effective. The earliest is Muscari botryoides azureus. M. botryoides albus, M. b. cœruleus Heavenly Blue and M. Heldreichii are among the best to grow. A few of the ordinary Hyacinths may be used in borders on the top surrounding, but not among stones or rocks. Anemones may be largely used with distinct advantage and success. Among the earliest to bloom is A. blanda. A. sulphurea, A. Pulsatilla, A. sylvestris, A. narcissiflora, A. Allenii, A. fulgens, A. apennina and A. alpina are all beautiful and make a fine succession, and, if there is plenty of room, some St. Brigid might also be planted. Adonis amurensis is very showy. It has deep green, Fern-like foliage and yellow flowers. A. pyrenaica is also a fine type. A. amurensis and A. vernalis flower in early spring, and A. pyrenaica in early summer. Anomatheca cruenta is a very charming little Irid, Ixia-like, and puts one in mind of a scarlet Freesia. The bulbs should be planted fairly close together in a warm corner. These flower in May and make a fine display. Bravoa geminiflora, a pretty flowering bulb with long racemes of crimson flowers, appears in July and August. Chionodoxa sardensis, C. Luciliæ and C. gigantea are all pretty and effective, and should be grown by everybody. Leucojums are also very handsome, and flower in spring, summer and autumn.

These are like monster Snowdrops, and sometimes have stems 2 feet long, which make them valuable for furnishing a vase of lovely flowers. They grow in any garden soil. L. æstivum is the summer-flowering variety; the others flower in early spring, except L. autumnalis. Sanguinaria canadensis (Bloodwort), a very pretty white flower, requires a little protection in winter—a covering of peat will suffice. When cut, red juice exudes from the flower-stem or leaf; hence its name of Bloodwort.

Tecophylæa cyanocrocus, a Chilian Irid with lovely blue, sweet-scented flowers, reminding one of Violets, requires a rich, light soil. It flowers at the end of March. Trillium grandiflorum, with lovely choice white flowers, requires a moist, shady and well-drained position. It is very pretty when among Ferns and alpines which are grown in shady nooks. Uvularia amplexicaulis, golden yellow, after the habit of Convallaria polygonatum, is fine for cool, shady spots. All these bulbs should be planted as soon as possible after this date.

Leonardslee Gardens. W. A. COOK.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

LÆLIO - CATTLEYA ST. GOTTHARD MCBEAN'S VARIETY.—An extremely showy hybrid. Petals rosy mauve, lip ruby crimson, crimped and very broad. Parentage: L.-C. gottoiana × C. hardyana. Shown by Messrs. J. and A. McBean, Cooksbridge, Sussex.

Lælio-Cattleya luminosa aurea.—A very beautiful and extremely graceful variety obtained by crossing Cattleya aurea with the Walton Grange variety of Cattleya tenebrosa. The new-comer possesses the many good points of its distinguished parents. The flowers are of good size. The perianth is a lovely shade of golden yellow, lip deep purple and well developed, petals drooping. Shown by Sir George Holford, K.C.V.O., Westonbirt, Tetbury.

AWARDS OF MERIT.

Vanda kimballiana alba.—A pure white form of the well-known species. This albino is both beautiful and interesting. Shown by Messrs. Mansell and Hatcher, Rawdon, Leeds.

Chrysanthemum Dorothy Dann.—A well-formed single-flowered variety of pleasing bronze shade. The variety is elegant and free.

Chrysanthemum Bronze Goacher.—The colour name is fairly descriptive of this new-comer, which is a pleasing sport from the well-known Goacher's Crimson, and with all the good attributes of growth and freedom of the original. These were shown by Messrs. William Wells and Co., Limited, Merstham.

Berberis verruculosa.—A dense-growing evergreen shrub of about 2 feet high. The leaves are small, leathery, spiny, shiny above and glaucous beneath. The yellow flowers are borne in pairs, and are succeeded by violet purple fruits. Small plants of 1 foot or so high would be extremely pretty in the rock garden. From Western China.

Lonicera nitida.—This bush-habited Honeysuckle is as unlike a Lonicera in habit as could be conceived. The plant is evergreen, very neat in habit, and attains 3 feet to 6 feet high. The sub-erect branches are densely covered with small, ovate, shining leaves. The flowers are creamy white and fragrant. A most distinct plant. This, like the above, is among the recent introductions from Western China. These two distinct shrubs were shown by Messrs. James Veitch and Sons, Limited, Chelsea.

Aster Amethyst.—A deep-coloured seedling from the now well-known highly popular A. Climax. It is of somewhat dwarfer habit than that variety, with large deep blue coloured flower-heads. See illustration on page 536.

Aster Profusion.—This is a pure white variety of A. ericoides, a specimen pot-grown plant 3 feet high and 4 feet across displaying the merits of the novelty to advantage. These were exhibited by the Hon. Vicary Gibbs, Elstree, Herts (gardener, Mr. E. Beckett).

Dahlia Delicè.—One of the large decorative class, whose flowers are coloured a pretty cerise pink shade. Exhibited by Messrs. Carter Page and Co., London Wall.

Veronica Silver Queen.—A remarkably beautiful silver-leaved variety of the V. Andersonii or speciosa class. The plants are of very compact habit, the variegation—which in this particular plant we not only tolerate but welcome—being uniformly distributed and of a bright ornamental character. As an attractive plant for town window-boxes in autumn and winter, or for bedding out in pots as a groundwork to other important plants in summer-time, we imagine there is a future for this fine plant. Exhibited by Messrs. William Cutbush and Sons, Highgate, N.

Nerine Mrs. F. R. S. Balfour.—A beautiful and distinct variety, the predominant colour shade being of a lively rose carmine on the more exposed portions of the segments, followed by a pinky white suffusion internally to the base. The combined colours produce a pretty effect. The perianth segments are slightly twisted.

Nerine Mrs. Meade Waldo.—This handsome variety produces a splendid head of flowers, the colour of which is rich orange scarlet.

Nerine Snowflake.—The finest pure white we have seen. It is quite an acquisition.

Nerine Hon. Miss Gibbs.—The equal of Mrs. Meade Waldo in the splendid head of blossoms, which are coloured a dark carmine, with perhaps just a suspicion of lake. The whole of these Nerines were exhibited by Mr. H. J. Elwes, Colesbourne, Gloucestershire.

Clerodendron Fargesii.—Fruiting sprays of this new hardy species came from the Royal Gardens, Kew, where it is said to be quite hardy. The fruits are of pretty turquoise blue shade when mature, and in this stage the plant is quite ornamental. A native of China.

NEW FRUIT.

Plum Coe's Violet.—We have already been acquainted with this variety in show collections staged by the present exhibitor, Mr. Vert, gardener to Lord Howard de Walden, Audley End, Saffron Walden. This variety is beyond doubt a valuable acquisition as a late Gage. It is of medium size and superb flavour; the colour is dull purple, with a strikingly dark-coloured band down the suture in the middle of the fruit.

The foregoing awards were made by the Royal Horticultural Society on October 24.

WANTED, CAPE PELARGONIUMS.

THE Council of the Royal Horticultural Society has been asked to endeavour to obtain an agreement on the nomenclature of what are commonly known as Cape Pelargoniums. The only practical way known to the Council is to invite all growers of these plants to *at once* send cuttings (rooted or otherwise), with the name known to the sender attached, by post to the Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey. They will be potted up and next year be compared with each other, and with herbarium specimens and printed records. No Zonal, show or French Pelargoniums should be sent, only those known as "Cape."

W. WILKS, *Secretary, Royal Horticultural Society.*

ROYAL INTERNATIONAL HORTICULTURAL EXHIBITION AND THE ROYAL HORTICULTURAL SOCIETY.

READERS of THE GARDEN who are subscribers to the Royal Horticultural Society will be interested to learn that the directors of the International Exhibition Association have agreed: 1. To give to all Fellows of the Royal Horticultural Society certain special privileges over the general public in regard to the purchase of tickets for the exhibition; and (2) to allow all such tickets purchased by Fellows of the society to be transferable.

ADMISSION ARRANGEMENTS.—GENERAL PUBLIC.

The directors of the International Exhibition Association have decided on the following prices of admission: May 22, before 5 p.m., £2 2s., from 5 p.m. to 10 p.m., £1 1s.; May 23, before 5 p.m., £1 1s., from 5 p.m. to 10 p.m., 10s.; May 24, before 5 p.m., 10s., from 5 p.m. to 10 p.m., 5s.; May 25, before 5 p.m., 5s., from 5 p.m. to 10 p.m., 2s. 6d.; May 27, all day, 2s. 6d.; May 28, 29 and 30, all day, 1s.

FELLOWS OF THE ROYAL HORTICULTURAL SOCIETY.

The special privileges accorded to Fellows of the Royal Horticultural Society are as follows: Fellows of the Royal Horticultural Society paying an annual subscription of four guineas—May 22 and 23, two tickets at half price at either hour; May 24, 25 and 27, four tickets for any, but only one, of these days, with two additional tickets for the 5s. day, all at half price; May 28, 29 and 30, no reduction. Fellows of the Royal Horticultural Society paying an annual subscription of two guineas—May 22 and 23, one ticket at half price at either hour; May 24, 25 and 27, two tickets for any, but only one, of these days, with one additional ticket for the 5s. day, all at half price; May 28, 29 and 30, no reduction. Fellows of the Royal Horticultural Society paying an annual subscription of one guinea—May 22, one ticket at 30s., or 10s. 6d. after 5 p.m.; May 23, 24, 25 and 27, one ticket at half price for any, but only one, of these four days; May 28, 29 and 30, no reduction. Honorary and corresponding members enjoy the same privileges as two-guinea Fellows. Associates—May 22, 23, 28, 29 and 30, no reduction; one ticket on May 25 or 27 at half price. One-guinea affiliated societies—May 22, 23, 28, 29 and 30, no reduction; ten tickets on May 25 and sixteen tickets on May 27, all at half price. Two-guinea affiliated societies—double privileges.

All privileged tickets on the foregoing scale must be purchased on or before May 12, and can only be obtained direct from the office of the Royal Horticultural Society, Vincent Square, Westminster, S.W. All tickets will be transferable, but will each be available for one admission only. Fellows can, therefore, circulate among their

friends such of the tickets as they do not personally require. A cheque or postal order payable to the Royal Horticultural Society must accompany every application for tickets, and tickets when once purchased cannot be exchanged for others of a different date.

R. HOOPER PEARSON, *Hon. Press Secretary.*

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

ROSE GARDEN.

Transplanting three and four year old ramblers (*R. S. O.*).—After such a season of sunshine which has so thoroughly hardened the wood, there should be no difficulty in transplanting the Roses safely. Early in November would be the best time. Cut the growths back to about 3 feet from the ground; then give the plants a good watering. After twenty-four hours dig round them carefully, so that soil will remain to the roots as much as possible. Have some pieces of sacking ready, lift out the plant on to the sacking and sew up the ball of earth tightly. You will probably be able to lift the Roses with about half a bushel of soil attached, unless the latter be light and not very adhesive. Even if the plants lose their soil, we should still advise the planting, only it would be well to cover the roots with damp moss, and then ball up well to keep air from the roots while in transit to their new home. You would, of course, have the new positions dug ready and the holes opened, and it would be well if water were poured into the holes a day or so before. After planting, give a good watering; then cover the surface soil with short manure and tie up the growths to some support. Remove all the foliage remaining after cutting back the growths. In spring prune back to plump-looking eyes.

Twenty-four Roses for exhibition and garden decoration (*A. F.*).—The following varieties would meet your requirements: Anna Olivier, Captain Hayward, Caroline Testout, Countess of Gosford, Dr. O'Donel Browne, Earl of Warwick, Frau Karl Druschki, George C. Waud, Kaiserin Augusta Victoria, Königin Carola, Lady Alice Stanley, Lady Ashtown, Lady Roberts, La France, Laurent Carle, Lyon Rose, M. Joseph Hill, Molly Sharman Crawford, Mrs. Harold Brocklebank, Mrs. John Laing, Pharisaer, Princesse N. Mertchersky, Ulrich Brunner and Victor Hugo. Three varieties of Tea Roses for planting in a cold frame would be Anna Olivier, Lady Roberts and Mme. Hoste. They could be planted any time towards the latter part of October and throughout November.

Dorothy Perkins shoots damaged by insects (*Heaton*).—We believe the growths have been eaten by one of the weevils when the shoots were in a succulent state. These pests do their work at night, and hide away in the soil by day. It will be best to give the soil a dressing of Vaporite or some good preventive. Dorothy Perkins should not be pruned to any great extent in autumn; but where the plants are some years old, a few of the very oldest growths that show signs of being worn out should be cut clean away, thus affording more air to the growths remaining. It is advisable to open out the plants as much as possible, which ensures a more thorough ripening of the wood, and in October the soft-looking growths should have the ends pinched out. In March the lateral growths springing from the main branches are best cut back hard, even to 3 inches or 4 inches, but the five long growths of this summer should be retained their full length.

Sportive Rose (*W. McC.*).—The Rose sent seemed to us to be that of Peace, and if so, the pink flowers resemble the variety G. Nabonnand, which produced Peace as a sport. There is no accounting for a Rose sporting. The old variety Souvenir d'un Ami had been grown in gardens for years, and then it suddenly gave two white sports, one in England known as Souvenir de S. A. Prince, and one in America known as The Queen, both sports originating practically at the same time. Even to-day that old Rose will produce white flowers and pink flowers on the same plant. Many of our popular Roses are sports of other Roses. For instance, Lady Roberts sported from Anna Olivier, Pride of Waltham from Countess of Oxford, The Bride from Catherine Mermet, Sunrise from Sunset, Lady Godiva from Dorothy Perkins, and so on.

Roses for bedding in Holland (*Inconnu*).—You could not do better than plant Caroline Testout as a pink, and we think Admiral Dewey, a flesh white sport of the latter, would be more preferable than Frau Karl Druschki, although, if you desire a pure white, you could not better this latter. Another lovely combination would be Mme. Abel Chatenay (pink) and Mrs. David McKee (creamy white). Good yellow Roses would be Mme. Ravary, Mme. Melanie Soupert, Mme. Hoste, Lady Roberts, Jeanne Philippe, Harry Kirk and Bouquet d'Or. This latter is a strong grower and would do well in the centre, but we should say Mme. Ravary would be the best. Good red varieties are Louis van Houtte, Victor Hugo, Liberty, Laurent Carle, Friedrichsruh and Chateau de Clos Vougeot. This latter is a glorious colour, although it does not approach your ideal. We think Victor Hugo would be the best, as its growth is less vigorous than Mme. Ravary. There is a very beautiful new variety named Leuchtfeur, which we are sure you would like; but, although new, it is not expensive.

FLOWER GARDEN.

Border flowers failing (*Flower Lover*).—From your description of the behaviour of the varied classes of plants, we should imagine that the soil was teeming with insect pests, or that some deadly fungus was present. As the border appears to be an important one, and leaves no room for delay or experiment, we should advise removing the whole of the soil to the kitchen garden, or discarding it entirely and bring in a fresh supply. If this in your case is impracticable, the only other thing to do would be to try some of the many soil fumigants advertised in our columns, replanting after a period of three weeks or so. Usually in such cases a rather heavy dressing of lime suffices, say, two bushels to a rod of ground, working it in after it has become slaked at different levels, and allowing a little time to elapse before planting. If you cannot introduce fresh soil at moderate cost, try the lime and dispense with manure for a season.

Aquatic garden or pond (*Aquatic*).—These are very distinct one from the other, and while the former, by excavations and depressions here and there, could be formed out of any naturally wet, low-lying area, the pond resolves itself into a single isolated compartment specially designed for the purpose. Unfortunately, you give us no idea of the space at disposal or the natural bent of the ground, both of which would have been helpful. In a small way aquatic plants may be grown in sunken tubs, tanks or ponds, tanks being often enough a convenient way, and if arranged in a connecting series could be utilised for plants requiring shallow, intermediate, or deep water. Slate, timber made with caulked joints, or concrete and cement tanks are all suitable, the latter perhaps being the least costly where plenty of ballast for concrete is at hand. Walls of 9 inches in thickness, and faced internally with cement and water-washed sand, gauged up to two and one, *i.e.*, two parts of sand to one of cement, would render the whole water-tight, the walls and bottom having been first formed of concrete and cement in a four and one proportion. In an arrangement of this kind an important item is the foundation on which the tank would rest, and which should extend at least 12 inches beyond the outer walls on every side. Such tanks should be made of 12 inches, 18 inches and 24 inches deep internally, or one large tank may be divided into compartments at similar depths and made of any size you require. The pond for aquatics on heavy or clayey ground should be in a natural depression, wherever possible; and where the water supply is constant and good, can be made sufficiently water-tight for all purposes if well puddled with clay. A lining of well-tempered clay of 6 inch thickness would be ample, and if about the sides shelf-like projections were formed, plants in pots or baskets requiring a modified depth of water could be placed thereon. Such a pond should be made in autumn or winter, when there would be no fear of the clay drying up so quickly as to cause cracking. In each case soil of a loamy character would have to be introduced, and for Nymphæas a fourth part of cow-manure might be added.

TREES AND SHRUBS.

Ornamental Vines to identify (*E. E.*).—The two Vine leaves sent for identification which were sold to you for Vitis Coignetiæ belong to that species. The species shows a certain amount of variation in size and shape of leaf, and it rarely colours up to its reputation; in fact, it is a rather disappointing plant in that respect, for when it was first introduced a great deal was made of its brilliant autumn colouring as seen in Japan, and also in America. Now and then it is seen in good condition in this country, but it cannot be relied upon to colour well, and we are afraid there is nothing that you can do to make it colour. From the appearance of the smaller leaf, the plant from which it was taken will colour this autumn. The Purple-leaved Vine is Vitis vinifera var. purpurea, a variety of the common Grape Vine, sometimes called the Teinturier Grape.

Cedar tree dying back (*Nemo*).—The Cedar tree about which you require advice ought to have all the dead wood removed at once. As you say that the leaves are turning yellow, it is probable that the ground is very dry about the roots. Should this be the case, steps should be taken to give the ground a good soaking from the trunk of the tree to the outskirts of the branches. It is possible that the roots may be infested with some fungoid disease, and if that is the case, there can be little hope of preserving the tree for any lengthy period. When the dead branches are being cut away, they must be cut right to the trunk, and all wounds must be dressed with coal-tar.

A border of shrubs (*F. U. T.*).—The situation you describe is not suitable for the varieties of climbing Roses mentioned in your letter. We agree with your suggestion that they should be moved to another position. A border with a westerly aspect will certainly be better for them that the position they now occupy. Berberis stenophylla might be planted in their place. It is, at the same time, a good evergreen and a first-class flowering shrub. Suitable shrubs for the other part of the border are Olearia Haastii, Berberis Aquifolium, Pernettya mucronata, Tree Ivies and Ligustrum japonicum, evergreen; and Forsythia suspensa, Cytisus præcox, C. albus, Genista pilosa, Tamarix pentandra (T. hispida æstivalis), Hypericum hookerianum, H. moserianum, Spiræa arguta, S. Anthony Waterer, Lilacs in variety, Philadelphus Lemoinei, P. microphyllus, Ribes sanguineum atrorubens, Escallonia philippiana, Viburnum plicatum, Diervilla Abel Carrière, D. Eva Rathke and Potentilla fruticosa, deciduous flowering shrubs. Cornus Spæthii and C. alba sibirica variegata are a pair of decorative foliage shrubs which would be well worth including

THE GREENHOUSE.

To prune Fuchsias (*L. C.*).—Do not prune your Fuchsias until the spring, and then shorten back the young shoots. The extent to which this is done will, of course, depend on the shape of the plant, the object being to secure a symmetrical specimen. As a general rule, the shoots of the preceding season may in spring be shortened back to within three or four eyes of the base.

Gilia coronopifolia (*E. K. T.*).—Your treatment of the Gilia is wrong, and the plant is sufficiently hardy to endure the winter in a cold frame in your district. Assuming that the plants are not large, they should not be lifted and potted and given greenhouse protection for the winter. The temperature should not exceed 40° or 45° by artificial heat until the days lengthen. The correct method of treating this plant would be to sow seeds in July, prick and pot off the seedlings as they may seem to require it, and house them in a slightly warmed structure for the winter. Thus treated, the plants would flower when rather more than a year old. The Hollyhocks would be perfectly safe in the open garden, much safer, indeed, than if coddled in frames or elsewhere. If the plants are still in the seed-bed, they should be transplanted to their permanent quarters at once. This, indeed, should have been done in August or early September. The index published at the end of the year is the only one that is prepared.

KITCHEN GARDEN.

Tomatoes diseased (*W. L.*).—It is not unnatural for the other leaves to perish when the plants are attaining maturity, but in your case they have obviously been badly infested by the Tomato leaf-mould, which in a too close atmospheric condition soon affects the entire plant, or indeed the whole house. The disease is best kept under by regulating the temperatures and ventilation, the latter of which should be ample day and night. If the house is closed at night, it will be seen that the plants and fruits are reeking with moisture in the morning; hence a little fire-heat in conjunction with a rather free top ventilation will be found the best preventive measure. Fumigate the house by burning sulphur when the plants are cleared out, and employ a little sulphur mixed with the whitewash. Avoid very rich soils and plant firmly.

MISCELLANEOUS.

Yarrow on a lawn (*F. G. E.*).—We are afraid that there is no good way of clearing Yarrow out of a lawn save by digging the lawn over and resowing seed. Where lawns are used much, people often encourage Yarrow, especially where the soil is poor, for it does well in dry weather, keeps green, and stands more hard wear than grass. As you wish to get rid of it, we advise you to dig the lawn over, so as to bury the turf fairly deeply, and sow again with clean grass seed.

Insects for examination (*Anxious*).—We do not think you have captured the culprits which have destroyed your Onions. The insects, mostly beetles of carnivorous habits, and the centipede enclosed in the bottle which you sent are certainly not to blame. We expect you will find on further search some white grubs, the larvæ of the Onion fly, which work their way into the bulbs and cause this destruction and decay. You might next year scatter some Aphol, Vaporite, or Apterite on the soil in which you intend to grow your Onions, and when they are up place some sand along the rows, having first moistened it with a little paraffin. Put the sand a short distance from the plants, and renew it at intervals

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

REGELIO-CYCLUS IRISES.

THERE are always two seasons in the year during which any group of hardy flowering plants may be usefully referred to with benefit to the general body of readers. These are naturally the flowering and the planting seasons, and in selecting the latter at the present time I do so in the hope of making better known the above-named modern race of hardy hybrid Irises. It was in the spring of 1904 that Mr. Hoog (Messrs. C. G. Van Tubergen, jun.) brought from Holland the earliest varieties of this new race to the old Drill Hall, Westminster, and the warmth of the welcome they received, as also the enthusiasm that prevailed, must have been a source of considerable satisfaction to the originator of the new set. At that time these new Irises brought with them a reference of seven years' standing—at once a record to perfect hardiness, to free flowering and amenability to conditions of cultivation that are simple in the extreme.

The reader should be told at once, I think, that the new race had been evolved by the intercrossing of the finest of the Oncocyclus or Cushion Irises with those of the Regelia group, the object in view being to embrace as much as was possible of the hardy, enduring perennial character of the last-named set, and to endow the progeny with as much of the fascinating beauty of the Cushion race as circumstances rendered possible. How successful those efforts were may be gathered from the fact that at a single sitting on that memorable day in May, 1904, the floral committee of the Royal Horticultural Society made some six or seven awards to the newcomers, three of these being of the "F.C.C." standard. That the committee were fully justified in this, subsequent events have proved unmistakably; and the fact that these Irises had proved so generally hardy in Holland was accepted as a good omen for their behaviour within the limits of the British Isles. That there was room for such a race, those who had endeavoured to cultivate the true Cushion Irises and failed signally again and again knew full well; and even though the newcomers did not embrace all that quaint or picturesque beauty so characteristic of the Cushion race, they were certainly endowed with attributes—*e.g.*, growable plants of perennial duration—the others did not possess. Hence there was room for this new hardy hybrid set, and being totally unlike others then existing, the varieties were quickly in demand.

The Cushion Irises proper, of which I. susiana is one of the most distinct, have, as is well known, the tantalising habit of dying out when planted in the open garden, and only respond to cool greenhouse treatment within certain limits. With the coming of the new Regelio-cyclus race, however, on learning their parentage I entertained hopes that some of them at least might prove to be endowed with attributes fitting them for cultivation as herbaceous border plants. This was expecting too much, a consummation, however desirable, which has not been realised. Indeed, while these new hybrids have inherited much that is good from both parents, and while they are richly endowed with vigour, perennial reliability and freedom of flowering, they have also inherited and display an unmistakable desire for a period of absolute rest and inactivity each year. This much, indeed, appears essential so far as the welfare of the plants and the climatic conditions of these islands or of Holland are concerned. It is a condition, too, judging by the freedom and continuity of the growth of the plants, that might prove not a little perplexing to the uninitiated, who, with the evidence of perpetual activity before him, might hesitate to do what is necessary or right in the circumstances. Indeed, such evidences as those we have in mind, and of which the plants, rightly cultivated, each year afford abundant proof, might well perplex even an expert cultivator, were it possible for the latter to disregard the likes and dislikes of the original parents in these matters. Hence a period of rest, absolute and complete and out of ground, is most essential to the permanent success of the group we have in mind. To cover the plants with hand-lights or cloches does not produce identical results, and nothing short of cutting off food supplies from the roots and root fibres will produce the desired effect. To secure this the plants should be lifted late in July or early in August and stored away in shallow boxes in any well-ventilated place till October is well on the wane. At that time and for a few weeks longer the plants may be put out in their flowering quarters, though nothing is gained by undue delay in replanting.

The primary object of the enforced rest to which I have referred is to keep the growth in check till the worst of the winter

weather has gone, beyond which the plants have little to fear save the insect foes common to most gardens. I have tried some of these fascinating Irises on a warm border minus the orthodox lifting and resting, and, as a result of its enfeebling effects, strongly advise all interested *not* to go and do likewise. Thus treated, the plants produced much early winter leafage, to which the unthinking slug paid marked attention. In the matter of soils I have found these hybrids to respond readily to those of a rich, light character. Bone-meal or old lime rubble mingled with the soil is much to their liking. E. H. JENKINS.

Hampton Hill, Middlesex.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 13.—Evesham and District Chrysanthemum Show (two days); United Horticultural Benefit and Provident Society's Committee Meeting.

November 14.—Ulster Chrysanthemum Show (two days); Plymouth Chrysanthemum Society's Show (two days); Lincoln Chrysanthemum Society's Show (two days); Chester Paxton Show (two days).

November 15.—North of England Horticultural Society's Meeting and Exhibition at Newcastle; Banbury Chrysanthemum and Fruit Show.

November 16.—Barnsley Chrysanthemum Show (two days); Scottish Horticultural Association's Chrysanthemum Show in Waverley Market, Edinburgh (three days); Newport (Monmouth) Chrysanthemum Show; Buxton Chrysanthemum Exhibition.

November 17.—Rochdale Chrysanthemum Show (two days); Blackburn and District Autumn Show (two days); Bolton Chrysanthemum Show (two days); Cumberland Chrysanthemum Society's Show.

Inspector of Plant Diseases. — We understand that Mr. C. W. Mayhew, late of the Royal Gardens, Kew, has been appointed Inspector of Plant Diseases to the county of Huntingdonshire. Mr. Mayhew, who is a medallist of the Royal Horticultural Society by examination, commences his new duties on the 13th inst.

A new school of horticulture in London.—The many horticultural friends of Mr. E. F. Hawes, for fifteen years superintendent of the Royal Botanic Gardens, Regent's Park, N.W., will learn with interest that he has started a new school of horticulture in the West Hampstead district of London for the purpose of giving instruction to ladies and gentlemen who are interested in gardening, either in their own private grounds, by practical work in classes, lectures, demonstrations, or a correspondence course. For the purpose of practical instruction in the cultivation of tender greenhouse and decorative plants, flowers and fruit, a range of glass houses covering an area of over seven thousand superficial feet has been obtained. The arrangement and working of this department will be entirely remodelled on the most up-to-date principles as rapidly as time will permit. The town garden department will be prepared to undertake the designing and formation of entirely new gardens, also give advice concerning any alterations and improvements which may be under consideration. Those wishing to take part in the movement should write to Mr. Hawes at Ulysses, Fortune Green, London, N.W. As an appreciation of his services, the Council of the Royal Botanic Society presented Mr. Hawes with their large gold medal on his retirement, an honour that has never before been conferred on an officer of the society.

National Sweet Pea Society.—This society will hold its annual meeting at the Hotel Windsor, Victoria Street, Westminster, on Friday, December 8, at two o'clock. Notice of new rules or alteration of rules should reach the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, on or before Friday, November 17. The annual meeting will be followed by a dinner at six o'clock, and this in turn will be followed by a Sweet Pea conference to commence at seven o'clock, at which the following subjects will be dealt with: "Sweet Pea Diseases," by Mr. F. J. Chittenden, F.L.S., Director of the Wisley Laboratory; "Packing Sweet Peas for Market," by Mr. Thomas Page of Hampton; and "Packing Sweet Peas for Exhibition," by Mr. Thomas Stevenson of Addlestone.

The National Rose Society's Official Catalogue.—This important and useful publication has just been sent to members of the above society. A comparison of the present edition with that of 1910 will show that a good many improvements have been effected. Varieties which are now somewhat out of date or are superseded by better sorts have been eliminated, and about an equal number of other Roses inserted instead of them. The selections embrace varieties for general garden purposes, bedding, standards, tall weeping standards, walls, pillars, pergolas, covering banks, pegging down, forming a hedge, growing as bushes, edging, button-holes, towns, pot culture, specimen plants for indoor decoration and greenhouse climbers. Lists of fragrant Roses, Hybrid Perpetuals, Hybrid Teas, Noisettes and Teas for exhibition are also included. Copies of this handbook can be obtained by non-members through a member of the society, the price being 2s. 6d.

A paint-destroying fungus. — The current issue of the *Kew Bulletin* contains an interesting account by Mr. G. Massey of a fungus which grows on fresh paint. We quote the following from the *Bulletin*: "Amongst the most remarkable of such fungi is one that elects to grow on fresh paint. It flourishes in the greatest profusion in hothouses, its development being apparently favoured by a high temperature and constant humidity, as it is but rarely observed on paint elsewhere. About a month or two after a hothouse has been painted, more especially if white paint has been used, numerous small, pale rose-coloured specks appear on the paint; these specks gradually increase in size, and change to a purple, or sometimes dark red colour, suggesting the idea of blood having been sprinkled over the paint. In course of time the discoloured areas extend considerably, and form broadly effused patches several inches across. About a week after the coloured patches are fully developed, their surface becomes studded with minute blackish-red warts. Each wart is a fungus fruit, containing myriads of very minute spores, which in due course are dispersed and start new points of infection. When the fungus appears in abundance, as is usually the case, the paint is irretrievably ruined, and serious loss follows. During the present year one firm of painters lost over £200 in consequence of the appearance of the fungus in a large number of Cucumber houses painted with expensive protective paint. All the work had to be done over again, and in some instances the second coat had to be removed and a third coat applied. The surface of the paint is not at all broken up, or in any way injured, and the amount of discoloration depends on the relative quantity and spread of the mycelium. . . . The presence of two per cent. of carbonic acid in paint completely arrests the development of the fungus. Hydrogen peroxide bleaches, or at all events considerably reduces, the red colour without injuring the paint, but this is not a practicable remedy on an extensive scale."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Entrance fees to the International Exhibition.—The subscribers of the Royal Horticultural Society will certainly be interested to learn what the International Exhibition Association have agreed to as regards entrance fees to be charged to Fellows of the Royal Horticultural Society, but I venture to think that the Fellows, other than the four guinea and two guinea subscribers, will be entirely dissatisfied with the terms arranged. I ask you to insert this letter, as the very numerous and influential supporters to my original criticisms of the charges will, I am sure, be expecting to hear whether or not these charges are considered to be satisfactory by those who have taken a leading part in the criticism of the arrangements made by the Council of the Royal Horticultural Society. I venture to say that the matter will not be allowed to stop in this eminently unsatisfactory state. I cannot help thinking that the Council have gone beyond their powers in giving away our privileges of the usual Temple Show, and then to tell us that we cannot see the substituted show until five o'clock on payment of 10s. 6d. entrance fee unless we choose to pay the exorbitant charge of £1 10s., having regard to the fact that they have undertaken to subscribe so liberally. What steps will need to be taken to protect the rights of the Fellows must be the subject of very careful consideration. I should be glad to hear from any Fellows who are dissatisfied and who have not already written me.—C. LEMESLE ADAMS, *Pendeford Hall, near Wolverhampton.*

Outdoor Grapes.—It is so long since we have seen Grapes ripening well on an open wall, because seasons have been unfavourable, that it was with some surprise members of the Royal Horticultural Society's fruit committee received bunches of very excellently ripened and coloured Black Hamburgh Grapes on the 10th ult. which had been grown on a blank wall facing south in so populous a district as Shepherd's Bush. To have had samples of any Grape well ripened outdoors under similar conditions would have evoked some satisfaction, but that the variety should have been Black Hamburgh caused surprise also. The sender of the Grapes and grower of the Vine was Mr. McDonald, Chief Librarian at the Public Library in the Uxbridge Road, Shepherd's Bush. Before making any award to Grapes thus unusually produced, it was thought wise that a member of the committee should see the Vine and report upon it. That has been done. At the back of a portion of the library is a blank wall some 12 feet in height and 34 feet in length. At the top is a projecting roof eave 14 inches wide,

but that has little to do with the Vine, seeing that none of the shoots or rods, which are trained vertically, reach higher than about 8 feet. From the main stem radiate, low down, two horizontal branches, but one has a much longer distance to travel than the other. That one, some 10 feet from the main stem, has been brought down to the soil border, layered and rooted, then carried up, and given abundance of erect wood. The border of soil in which the Vine was planted is only 15 inches wide. In front of that is an asphalte footpath 24 inches wide, and beyond that some two or three rods area of lawn. Thus the Vine can get no feeding, but seems to have found a suitable natural soil. Leafage was extremely good and clean, the wood hard and well ripened. In a locality so smoky and foggy, the Vine merits all praise and its owner sincere congratulations. It still had many bunches in paper bags on it.—**D.**

Autumn-sown Sweet Peas.—It is a matter for surprise that it should not have occurred to your correspondent T. H. Dipnall that, failing a frame or greenhouse in which to house Sweet Peas in pots for the winter, it is so very easy to construct a frame protection of a temporary kind one's self and at trifling cost. Town-dwellers can purchase cheaply long egg-boxes from the grocer. In the country rough sawn half-inch boards 6 inches broad can be got cheaply from sawmills. Out of these materials it is easy to construct a rough framework 6 inches deep in front and 7 inches deep behind, fixed close under a warm wall, fence or hedge. The frame should not exceed 16 inches inside breadth, as then it would take three 5-inch pots sown with Sweet Peas abreast. If but 61 inches long inside, the frame would well hold thirty-six 5-inch pots—really a valuable lot to rely upon for spring planting. If the ground floor is of soil, slates should be laid; or if hard, half an inch of fine ashes would make a good floor. Sheets of stout glass 18 inches by 12 inches would well cover the frame, and a couple of sacks thrown over it in hard weather would make all secure.—A. D.

A poisonous climber.—For some years past a member of my family has suffered every summer from a mysterious irritation of the skin, with much swelling of the face, both disagreeable and painful. Doctors were unable to account for it, though this year a London specialist was consulted. However, he gave the clue, attributing it to external poisoning. Accordingly, I destroyed a fine lot of Primula obconica, though I felt sure they were not to blame; and then, too late to save them, I suspected the culprit in a climber that I had grown under the innocent name of Ampelopsis Hoggii, but which I remembered having been told by a man learned in plants, as in other things, was an entirely different species, and a most obnoxious one. I accordingly sent a branch to Kew, where it was identified as Rhus Toxicodendron, called in America the Poison Ivy, the sap of which is very poisonous. I think it must have been extra virulent this summer, as I have just heard of another family of which three members have suffered severely from the same cause. It was in picking the leaves for decoration and tearing off sprays that had overgrown the windows that the evil was done in these two cases. I write especially to protest against the trade offering it as Ampelopsis Hoggii, as I notice in certain florists' catalogues is still done, without any warning of its deadly nature.—(Rev.) G. STAPLETON, *Rotherwick Rectory.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

KITCHEN GARDEN.

TRENCHING.—When the conditions are suitable, this important work should be pressed on at every opportunity. There is no doubt that deep cultivation of the land is of the first importance in the production of nearly all vegetable crops; therefore an effort should be made to trench a considerable portion of the land every season.

Forcing Seakale and Asparagus.—The forcing of these vegetables may commence when the crowns are ripe. Seakale may be easily forced in large pots placed in the Mushroom-house. Place several crowns in each pot and cover the roots with finely-sifted soil pressed moderately firm. Little moisture will be necessary till growth is active; even then it must be given with discretion. Place inverted pots over the crowns to exclude light. A continuous supply of Asparagus may be kept up by placing roots in the forcing-pit at fortnightly intervals. A moderately warm hot-bed is necessary, on which a layer of well-rotted manure should be placed. This, again, should be lightly covered with sifted leaf-mould on which to lay the roots. Cover the roots over with a thin layer of fine soil; then water the whole with lukewarm water. When growth commences, a covering of sifted leaf-mould must be placed over the roots to the depth of 6 inches. Endeavour to keep the atmospheric temperature at about 55°.

Winter Salads.—To keep up a continuous supply of salads during the winter months, much care and forethought are required. A supply of Mustard and Cress can be ensured by sowing frequently in shallow boxes or on the surface of a border in a Peach-house which has just been closed. Cover the seeds with a sheet of brown paper till the seedlings are about an inch high. Endive should be tied up for blanching as the supply demands. Lettuce in pits must be carefully aired on all favourable occasions to prevent damping. They must also be frequently examined for decayed leaves.

FRUITS UNDER GLASS.

Early Peaches and Nectarines.—The early Peach-house may be closed now if ripe fruits are required at a very early date. If the trees need water, it is advisable to give them a thorough soaking. They will then require no more till the flowering stage is passed. For the first two or three weeks fire-heat should not be given. Even afterwards it must be used very sparingly till growth is well advanced. It is a sound plan to rely on pot trees for the earliest supplies of Peaches and Nectarines. The risks of failure are far less, and the quantity and quality of the crop quite equal to that obtained from permanent trees. Moreover, a few trees grown in this way will considerably lengthen the season of supply, as the permanent trees can be left till a later date. Early sorts must, of course, be selected for this purpose. All the pruning necessary is to shorten back extra strong growths, and regulate the fruiting wood so that light can penetrate through the trees. The proper symmetry of the trees must be borne in mind when this work is being done.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

THE EARLY VINERY.—It will be necessary to have the Vines in this house pruned as soon as possible, and the house thoroughly washed down and cleaned. Remove all loose bark, especially round the spurs. If insect pests have been noticed during the season, do not scrape the rods, but wash them thoroughly with a good strong solution of some approved insecticide, rubbing it well into the crevices with a stiff-haired brush. The surface soil should also be examined and a portion of it scraped off. If the Vines are old, it may be advisable to remove a few inches of the top soil down to the roots and replace it with a top-dressing of fresh turfy loam to which have been added half-inch bones and a sprinkling of some reliable Vine manure. Add also a little lime if this is not already present in the soil in sufficient quantity. The application of lime to Vines, as in most other garden crops, has a very beneficial effect, but is often entirely overlooked. See that the border receives a good soaking of water before the top-dressing is applied. The last operation in preparing a vinery for early forcing is to apply styptic to the wounds, as, no matter how well the wood has been ripened, the rapid rush of sap will cause them to bleed, and this is not easily stopped after it has commenced.

Early Figs.—These are best grown in pots for very early forcing, and should be selected from plants that made and matured their growth early last season. If the shoots were carefully thinned and stopped when growing, no pruning will now be required, but care should be taken to have the trees well washed. This will not be so difficult, as the bark is smooth and does not afford a suitable lodgment for insects except at the old cuts, which should be carefully pared off with a sharp knife and the wash freely rubbed in with a brush. Forcing must be commenced gradually. Give the pots a good soaking of water and place them in a house where the temperature can be kept about 50° for the first six weeks, after which they may be plunged in a bed of fermenting material and the temperature raised 10° to 15°. Syringe the plants overhead on bright days, but do not supply an excess of moisture either in the atmosphere or at the roots until the plants have made good progress in the formation of leaves.

Late Grapes.—Timely attention to the removal of any decaying berries is all that is necessary now with Grapes still hanging, a little warmth in the pipes, and a free admission of air on fine days to keep the temperature from 45° to 50°. Keep the house almost closed during foggy weather. Latest-keeping varieties should be kept hanging on the Vines till Christmas if possible, but where vineries have had to be used for housing Chrysanthemums, great care is necessary to keep the berries from damping, and it may be found necessary on this account to cut the remaining bunches of Alicantes, Appley Towers and Muscat of Alexandria and place them in bottles in the Grape-room. The latter variety we have found to keep in the best condition if allowed to hang on the Vines till they are wanted. See that the bottles are placed on the racks at the correct angle to allow the bunches to hang clear. A few chips of charcoal will keep the water fresh even if the bunches have to remain till midsummer. Either end of the shoot may be placed in the water. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE ROSE GARDEN.

SOME OF THE BEST NEW ROSES FOR CULTIVATION UNDER GLASS.

THE long-looked-for crimson Catherine Mermet has not yet arrived, but I think we are moving on towards it. Some of the recent introductions of a crimson and scarlet colour are decidedly good, and will be very welcome. I have not yet tried Leslie Holland under glass, but, judging from what I have seen of it, I look upon this Rose as being a great gain, and believe it will be largely grown for pot culture. The season has not quite suited Edward Mawley, but it is a magnificent colour, if somewhat thin. Lieutenant Chaure is a grand colour, also rather deficient in petals, but, nevertheless, a fine shape. It is an abundant bloomer, and will be very useful for cutting purposes. Mrs. Walter Easlea is a splendid acquisition for forcing purposes. Its colour is an intense orange crimson, quite a brilliant colour, and in form it is unequalled among crimson forcing Roses. I believe this Rose will be extensively grown by commercial florists, and should not be surprised if it supersedes Richmond. It is certainly a much fuller Rose, and free from the bluish shade that mars Rhea Reid.

I hear a good account of Manuel P. Azevedo, one of Messrs. Soupert and Notting's novelties, possessing the form and hardiness of Ulrich Brunner. Its Hybrid Tea nature and cerise red colouring should render it a useful variety under glass. Mrs. George Shawyer, when grown as grandly as Messrs. G. Mount and Sons exhibited it at the last Temple Show, must be a great acquisition. Possibly no more superb blooms of an indoor Rose were ever shown than the fine mass of Mrs. G. Shawyer, every flower perfect and of such a size and with a length of stem as even to astonish American visitors, who are accustomed to seeing fine, long-stemmed flowers. Duchess of Westminster will be another superb pink of huge dimensions. Somehow we seem to look for size in our forced Roses, where outdoors they would be rather coarse, and certainly we shall get size with this fine variety from Newtownards. What a splendid reserve of seedlings Messrs. A. Dickson and Sons must possess! They began almost at the first show of the year with Queen Mary and others, and at the end of September were able to show another superb novelty in Lady Plymouth, Rose that will be heard much of in the future.

Mabel Drew has been grand with me under glass. It is ideal in form and substance, and will be a great addition to Roses for all purposes. Melody, which is also from Newtownards, although grown in America before being distributed in England, will be a superb forcing yellow Rose. It is so marvellously free-flowering, a good quality in a forcing Rose. It has proved in America to be the freest winter bloomer yet raised. From a two year old plant last December twenty-six flowers were cut, and from the same plant, in the second crop in February of this year, twenty-seven flowers, a total of fifty-three flowers from one plant in three months.

I believe we shall find Sunburst also a great gain to yellow Roses. That prince of American growers, Mr. E. G. Hill, who grows thousands of plants of one sort, has a high opinion of this Rose, and has, I believe, secured the rights of distribution in America during next spring. The fine colour, double flowers and immunity from mildew will render it a splendid addition to our forcing Roses, as it will to garden varieties. Souvenir de Gustave Prat has been very fine with me. It has a lovely form, is double and of a beautiful clear sulphur yellow colour, and will make a beautiful pot Rose. The double pink Killarney must also be a great gain to our pot Roses. We all know the value of the original form, but its want of fulness somewhat marred its usefulness. Now, in the new flower, with its ten or twelve more petals, we shall have a very useful Rose. Lady Hillingdon will, no doubt, be grown very extensively as a forced flower. It has been so universally admired that its popularity is already assured, although, personally, I believe Sunburst will eclipse it. A. H. Gray will be a valuable addition to the yellow Roses, and it seems to come very near one's ideal of a dwarf-growing Maréchal Niel. Both this variety and Miss Alice de Rothschild are decided acquisitions and first-rate growers.

Duchess of Wellington, under cool treatment, will also be fine. Its colour is superb, almost equal to Rayon d'Or, and wonderfully like it in bud with its scarlet splashes. This Rose should grow well under the same conditions as Killarney, and it is splendidly vigorous. Mrs. Amy Hammond will be a formidable rival to Mme. Abel Chatenay, although it will take a good Rose to dethrone it from its proud position as one of the best forcing Roses. All who grow Caroline Testout as a forcer flower should obtain James Ferguson, which is of very dainty colouring, and is a sport of the old favourite. Some flowers with me this summer have been greatly admired. A Continental variety of great promise is Juwel, a variety described as a yellowish Frau Karl Druschki with the refinement of a Kaiserin Augusta Victoria. Mrs. E. Powell, Lady Barham, Mrs. Fred Straker, Mrs. James White, Mrs. Foley Hobbs, Jonckheer J. L. Mock, Freda, Mrs. Cornwallis West and Lady Greenall are other good sorts well worth growing as pot plants, and on no account should one miss having a number of Jessie and the Orleans Rose, two very delightful Polyantha Roses, or of Excelsa, one of the best of the new ramblers and well described as a Crimson Dorothy Perkins. P.



THE NEW TEA ROSE WILLIAM R. SMITH.

NEW TEA ROSE WILLIAM R. SMITH.

THIS new Rose has come to be regarded as one of the very best Teas of recent introduction. It is a variety well known to exhibitors on account of its large full flowers of regular and perfect form, and for this reason it was included in many winning exhibits this year. In colour the petals are creamy white, suffused or faintly shaded rose pink. There appears to be little difference of opinion as to the section to which this Rose belongs, for although included in the list of Teas for exhibition by the National Rose Society and classed as a Tea-scented Rose by some nurserymen, yet others classify it as a Hybrid Tea. In manner of growth and appearance it is inclined to be more robust than the Tea Rose in the generally accepted sense of the term. According to the parentage of Roses by Mr. R. Daniel as recently published in THE GARDEN, this Rose is given as a Hybrid Tea, raised by Mr. Smith in 1908. Parentage: Kaiserin Augusta Victoria × Maman Cochet. Whether the result of a cross between a Hybrid Tea and a Tea can be a Tea is a problem which has not yet been solved, and no rosarian can place his finger on the exact spot where the Tea ceases and the Hybrid Tea commences. However, be this as it may, it does not alter the fact that in the comparatively new Rose William R. Smith we have a valuable acquisition for the show-board as well as a useful garden Rose.



NEW FRUIT:
THE LAXTONBURRY

THE FLOWER GARDEN.

LIBERTIA FORMOSA.

WHERE this succeeds it has a strikingly handsome appearance during the latter days of May and commencement of June, with its numerous flower-wands, thickly studded with white blossoms, thrown up in profusion among its narrow, arching leafage. The Libertia appreciates a rich and porous soil, and in such assumes fine proportions, its flower-spikes often attaining a height of considerably over four feet and rendering it an exceptionally valuable border plant for the early summer, when it forms clouds of white that are effective at a long distance. In heavy, retentive soil of a clayey nature, however, this plant rarely flourishes, its foliage being sparse and weakly and its flower-spikes few and small, often not exceeding 18 inches in height. When grown under such conditions, no correct estimate of its worth can be formed, since it presents a totally different appearance from that which it is capable of under more congenial circumstances, sometimes, indeed, perishing in severe winters in low-lying and water-logged sites. The Libertias are plants of the Iris order, and L. formosa is a native of Chili, whence it was introduced into this country in 1831. It appears to be fairly hardy, as it has been recorded as succeeding as far North as Berwickshire, where it was said to grow to a height of between 2 feet and 3 feet and to flower fairly well. The individual blossoms are pure white, three-petalled and rather under an inch in diameter, often covering the end of the flower-spike for the length of 1 foot. Even when out of bloom the plants are by no means unornamental, their long, tapering leaves, erect in the centre of the clump and gracefully arching to the ground on the outside, having an elegant effect. In the gardens at Abbotsbury Castle in Dorsetshire it is grown in quantity in the neighbourhood of water, and does remarkably well; but that water is not indispensable for its successful culture is shown by specimens which are growing on a slope in an exceptionally dry garden in hot and stony soil in Devonshire. In ten years one of these plants attained a circumference of over twenty feet. The leaves are nearly four feet long, and the flower-spikes are almost five feet in height. Several hundred bloom-spikes are carried every season, and a beautiful picture is created. Numberless self-sown seedlings have sprung up around the parent plant, which have been lifted and given away to such as required them. In colder districts the Libertia, naturally, does not grow to such a size, and a correspondent writing from Yorkshire on this plant some years ago stated that his examples rarely grew higher than 1 foot. It is a very rapid grower, a small root division attaining a height and spread of 4 feet in a few years. The blossoms remain in beauty for some weeks. The accompanying photograph was taken in the gardens at Elfordleigh, about five miles from Plymouth. The plants occupy a space of over twelve yards across, and a little streamlet runs behind them. When in full bloom they present one of the most beautiful pictures it is possible to conceive.

South Devon. WYNDHAM FITZHERBERT.



LIBERTIA FORMOSA IN A DEVONSHIRE GARDEN.

SWEET PEA NOTES.

NOVEMBER SOWING.—As far as autumn sowing under glass is concerned, the principal part of the work is done during October; but sowings made under similar conditions during the present month usually succeed and yield fine plants. November sowing out of doors where the soil is light and sandy is excellent. Needless to say, the details of preparation must be carried out thoroughly, and the ground should be well firmed down before the seeds are sown rather more thickly than would be done in the spring. This is to allow for the losses which are almost certain to occur.

NOTES ON VARIETIES.—When I am preening my feathers on the value of Essex as a seed-producing county and praising its Sweet Peas as the finest the world can produce, I have a qualm of conscience, because I remember Upton-on-Severn, where Miss Hemus makes her home and produces seeds equal in vigour to any that can be grown even in Essex. These Holdfast seeds are handsome in appearance and convey the impression that they possess plenty of virility, and facts prove this to be the case, for they almost invariably germinate to the last one and, as a rule, the plants are remarkable for their vigour. There are cultivators, of course, who fail with them, as with the seeds of other firms; but the fault is generally in the management, though it is not in the human nature of a gardener to admit a mistake, and he, therefore, promptly blames the seeds. Not only is Miss Hemus world-famous for the distribution of splendid seeds, but also for the abundance and merit of her special varieties. We may not all agree with the flight of fancy which tacks Paradise in front of all the names; indeed, some of us think there is too much Paradise about the matter. This, however, does not, or should not, prevent one from acknowledging the quality that characterises all the Holdfast productions. In this current year of grace we are to have something quite fresh in the form of a race of dwarf varieties which remind one of the never-popular bush group; but in this introduction the height will be 18 inches or 2 feet, with flowers equal in quality to any that are given by ordinary plants. A start will be made with three colours only, and, happily, we only reach Paradise *viâ* two of them, for a large waved white with a blue picotee margin is named Dwarf Marjory Hemus. Dwarf Maroon Paradise and Dwarf Purple Paradise are also waved and large, and the names correctly indicate the respective colours. Then we are to have a double Evelyn Hemus, a double Paradise Regained, a double Paradise Ivory and a double Lucy Hemus. I suppose that the craze for size will force us to recognise these double flowers; but, personally, I should like to see the whole lot sunk in the sea. Others do not see eye to eye with me on this point, and they are welcome to grow their doubles; but I promise them that they will never persuade me to go and do likewise. I will adhere to the simple Sweet Pea, and will not swerve to those flowers, which are nothing more or less than abnormalities. In novelties in the general group Miss Hemus has several that are, as usual, exceptionally large and superbly waved. For example, Orange Paradise, Paradise Celestial, Mrs. Herbert Hemus (deep heliotrope), Paradise Colossus (bronze), Marjory Hemus (white, edged blue), Paradise Comet (bright pink, deeper at the margins), Paradise Topaz (a primrose Evelyn Hemus), Paradise Ebony (dark purple), Paradise Peacock (dull blue), Paradise Fuchsia (a deep Zarina), Linda Hemus (a deep Zephyr), Paradise Grey Flake (white, suffused grey), Mrs. Harriette Hemus (pale salmon), Paradise Dewdrop (white, faint violet tinge on the edge), Paradise Sunbeam (white, red picotee edge), Paradise Violet (white, heavily suffused deep violet), Paradise Amethyst (primrose, faint amethyst tinge at the edge) and Paradise Solfarina (reddish mauve) are all of merit, and are sure to be extensively grown. They do not comprise all Miss Hemus' novelties, although this is the very best of them, but I must stop because my space is exhausted.

A. B. ESSEX.

DARWIN TULIPS.

THE highly-honoured name of Krelage will always be associated with the Darwin Tulip. Often and often, as I look on these lovely, handsome flowers as with varied elegances they pass from childhood to old age, or as they are seemingly changed from something very magnificent to something still more magnificent by the growing intensity of a May sun, I silently thank the man who found them, and who had the business sagacity to give them to the world. They are a type by themselves, stronger in growth than the old-time "breeder" of florist days, and with a range of colour surpassing the ancient Cottage varieties. First of all, Darwin Tulips are not only outdoor garden plants. One of the things that we have lately found out about them is that they can be grown very well indeed in pots, and that the protection of a glass roof serves to bring out new and hidden beauties in its softening and refining influence. To have them at their best they must be potted now and "brought on" as slowly as possible. Cold frames are what they like to live in in all their early stages of growth, and they always like the windows open. When it is seen that they are good, strong plants—say, about the third week in February—they may be placed in a greenhouse with a temperature ranging between about 42° (night) to 55° (day), still with plenty of air and no coddling. Then, in late March or early April, there will be a glorious harvest. To be seen at its best, the Tulip should always be below us. Probably no flower loses more by being seen from any other standpoint than that which Nature itself provides. Their centres or bases are so varied, and so many of them so exquisite in their form and colouring, that to place them where these cannot be seen is to penalise them very heavily indeed in their race for the beauty prize either in our own houses or in the popular spring shows. *Do* place them where they can be looked into, and *do* go and look into them when the sun is shining and they are wide open. The fine illustration of Darwins at the Haarlem Jubilee Show last year, seen on page 547, is doubtless a revelation to many. There they are, in round beds of varying sizes, in grass, close to a background of evergreens. *They must have been fine.* I only wish now that it had been possible for me to pay a third visit to have seen them. Just look at the beds again. It is obvious that one variety only has been planted in each. Mr. Krelage and the show authorities knew how to plant them to their best advantage when they did this. It is an example for all of us to follow, "one bed, one variety." As Mr. Bowles of Crocus fame, writing of Darwins in a contemporary, says: "Their greatest value in the garden lies, perhaps, in their suitability for massing in beds, and the best effects are attained by using only one variety in a bed." Not only, however, may these grand flowers be used in pots or for massing; they are equally useful to form clumps of half-a-dozen or a dozen in the herbaceous border, or, as my good friend Bowles uses them with the greatest success and with the happiest effects, as isolated specimens among plants and foliage which will blend with the particular colour used. What varieties to advise for these different uses is a poser. I do not suppose two people in a hundred would give the same lists of the best twelve for pots, the best twelve for massing and the best twelve for clumps, or, what comes to very nearly the same thing in this latter case, the best twelve there are, having regard to diversity of colour, constitution and habit. I have been fortunate in obtaining from the head of the great Dutch firm (Mr. E. H. Krelage of Haarlem) a list of what he considers the best. It will be of interest, coming from such a great authority, to all Tulip-lovers, and of the greatest use to those who are contemplating a "venture" in Darwins: Clara Butt, salmony pink; Crépuscule, pinky lilac; Faust, deep violet; Giant, deep purplish crimson; White Queen (La Candeur), ivory white; La Tristesse, slaty blue; Mme. Krelage, rosy pink, edged pink; Margaret, soft pink, almost blush; Mr. Farncombe Sanders, rosy crimson; Prince of the Netherlands, cerise carmine; Raphael, purplish violet; and Haarlem, a giant salmony orange red. From this selection I should say Mr. Krelage has a partiality for the rich, deep purples. If so, I share it with him to the full, so much so that I have tried this autumn to form a collection of them all; The Bishop (a very great favourite of mine), Velvet Gem, Duke of Westminster, Frans Hals, Viola, Zulu, von Jehring, Regal Purple and others of lesser note. I have also included such paler and more "mourning" tones like La Tristesse, Remembrance, Gudin, Moralis, Melicette, Blue Amiable, Erguste and Rev. H. Ewbank. But I am digressing; I want to add to Krelage's best twelve Isis, brilliant tall red; Suzon, deep blush pink; Flamingo, long pink flower; Zanzibar, rich bronze; King Harold, rich crimson; Tara, ruby crimson; Yolande, deep salmon pink; and Edmee, a rather brighter edition of Mme. Krelage. All of these may be used in clumps or large masses. For pots I have found the following most satisfactory: Painted Lady, almost pure white; Professor Rauwenhoff, rich rose crimson; King Harold, deep crimson; Pride of Haarlem, old rose; William Copeland, pinky mauve; Bussy Rabutin, cerise red, very distinct; and Jaune d'œuf, a yellow. On this account it is not a real Darwin; but as it resembles them so much in shape and habit, I venture to include it. Anyone who grows these, with the addition of, say, The Bishop and Faust for dark purples, of Zanzibar, Auber and The Sultan for very deep maroons, of Suzon for a blush, will have a varied and reliable selection.

JOSEPH JACOB.



FLOWERING SPRAY OF A LITTLE-KNOWN SHRUB: VITEX AGNUS-CASTUS. (*See page* 548.)

FRUIT GARDEN.

THE AMATEUR'S VINERY IN NOVEMBER.

VINES from which ripe Grapes have been cut must now have plenty of air admitted to them, and everything else should be done that will assist in the thorough maturing of the wood. The past summer has been a very favourable one for the ripening of both fruit and wood, and as so much depends upon the thorough maturity of the young branches, no effort must be spared to secure this desirable condition. All sublateral shoots should be cut out, and the ends of side shoots or branches must also be cut off. If a side branch is 20 inches long, 6 inches may be cut away. The main leaves at the base of each branch must be specially cared for. On no account must they be broken off prematurely when lateral

growths are being removed. If these basal leaves are retained, the buds will get plumper, harder and more rounded in appearance.

EARLY FROSTS AND VINES.—It is a well-known fact that frosts will not kill Vines during the dormant stage; but it is not so generally known that frosts coming early in the autumn and killing the comparatively fresh leaves very materially damage the Vines, reduce their vigour and have a bad effect upon the next year's crop. So, although amateur cultivators must admit air freely to their Vines while the wood is ripening in the autumn, they will be acting wisely if they guard against frosts. The ventilation should be reduced at night and the pipes nicely warmed, so that any frost prevailing will have no effect upon the leaves.

THE BORDERS.—It is a common mistake on the part of the cultivator to allow the border to get dry in the autumn. Of course, it must not be kept in a saturated condition, but the soil must be well soaked with clear water before it becomes at all dry, and the following day apply liquid manure freely. All this tends to strengthen the Vines after they have borne a crop of Grapes and to plump up the important basal buds on the side shoots. Even though nearly all the leaves have fallen off, such watering twice or thrice in the autumn will prove very beneficial.

HOW TO STRENGTHEN OLD VINES.—Vines, if they receive ordinarily good treatment, will live and bear satisfactory crops for many years; but there are many instances where the Vines have become weak through wrong treatment—it may have been the result of overcropping, which is always bad policy—and then measures must be at once taken to improve their condition. If the spurs from which the side branches grow are too close together (they ought to be 18 inches apart on each side of the main rod), all superfluous ones should be cut out after the leaves have faded. Next summer there will, of course, be fewer side branches, but they are sure to be stronger and mature better. Closely examine the border, and if there are no roots to be found near the surface, the surface soil must be carefully removed, and turfy loam put on to replace it. B.

COLOURED PLATE.

PLATE 1438.

THE LAXTONBERRY.

SINCE the commencement of the twentieth century, a number of berries, all more or less resembling in outward appearance the Raspberry, have been put into commerce, and one or two are now fairly extensively grown. Others, owing to their unsuitability for cultivation in this country or their inferior qualities, have not found favour with home growers. The latest addition to the hybrid berries, and one that promises to prove of considerable value for commercial as well as private purposes, is the Laxtonberry, a coloured plate of which is presented with this issue. This fruit was raised by the well-known firm of Messrs. Laxton Brothers in their nurseries at Bedford, and plants are being offered for sale by them this autumn. It is said to be the result of crossing the well-known and deservedly popular Raspberry Superlative with the Loganberry.



A BEAUTIFUL ARRANGEMENT OF DARWIN TULIPS AT THE HAARLEM JUBILEE EXHIBITION.

In the Laxtonberry the acidity and hard core of the Loganberry have been eliminated, while the Raspberry flavour and appearance have been retained. Its habit of growth is about midway between that of its two parents, and no doubt it will prove a most valuable acquisition for planting in those localities where the Raspberry cannot be made to thrive and crop well. We have had an opportunity of seeing this fruit growing in the nurseries at Bedford, also exhibited on several occasions at the Royal Horticultural Society's meetings, and providing it can be induced to set its fruits freely we predict a rosy future for this berry. As it is a hybrid, the flowers are said to be, to some extent, self sterile, and to induce them to set freely the raisers advocate planting it in close proximity to other members of the Blackberry family. The fruits from which the coloured plate was prepared were grown by Messrs. Laxton, who have for many years devoted much time to the raising of new fruits of all kinds.



A USEFUL FLOWERING SHRUB: HYDRANGEA PANICULATA.

TREES AND SHRUBS.

VITEX AGNUS-CASTUS.

THIS is a very old inhabitant of our gardens, and one which, owing perhaps to its being rather tender in cold localities, is sadly neglected. It is a native of Southern Europe, fairly common along the shores of the Mediterranean region, where it bears the popular name of the Chaste Tree. A deciduous shrub, attaining a height of 6 feet to 8 feet, Vitex Agnus-castus is perfectly hardy in the open in the milder parts of the country; but in the London district and further North the plants thrive best against a wall. At Kew, the subject of this note, growing against a west wall and some 12 feet to 14 feet in height, was this year a profusion of blossoms from the middle of August to October. The flowers are white, distinctly tinged with lilac. Individually rather small, this is hardly noticed, so freely are the blossoms produced on the large terminal panicles.

The Vitex thrive in most soils, having a preference for those of a light, rather sandy nature. Cuttings root readily in autumn in a close frame. When growing against a wall, the best results are obtained by spurring back the old flowering shoots in early spring.

Suitable subjects for the wall of a corridor connecting a row of greenhouses are sometimes enquired for. If the position is a light one, this Vitex is an admirable subject. It belongs to the same family, Verbenaceæ, as the Lemon Plant or Scented Verbena, Lippia citriodora.

HYDRANGEA PANICULATA.

THIS is an extensively-grown shrub, and one often met with under varying conditions. Sometimes it is seen growing in pots and tubs for greenhouse and conservatory decoration, and although very ornamental when so grown, it is probably seen to greater advantage when in large massive beds in the open. Even another way of growing this shrub, and one which is perhaps the most effective of all, is to plant it as a solitary specimen in the open and leave it to grow almost unchecked. When so grown, as in the case of the plant illustrated, it should be given a fairly sheltered situation and, above all, a dense background of dark-foliaged trees to set off the flowers to the very best advantage. Hydrangeas like a rich loamy soil, and if plenty of decayed cow-manure can be given as a top-dressing in the growing season, so much the better. Moreover, the plants when in full growth require copious supplies of water. Complaints are often heard about Hydrangeas in pots not flowering, and in most instances this is due to the plants being half starved and the wood improperly ripened, two evils that may be readily overcome by judicious feeding in the growing season and by placing the plants in a sunny position after flowering. In the case of large specimens, very little pruning, beyond an annual thinning out of exhausted wood before new growth commences, is required; but in the case of smaller plants, harder pruning is necessary in order to keep them within bounds.

THE TOWN GARDEN.

WINDOW-BOXES.—Just now the suburban and town dweller will be giving some thought to the subject of window-boxes, in order to render them bright and effective during the winter months. From the garden standpoint the first thing to do is to effect a change of soil, discarding that which has been in use during the summer and supplying in its stead some of the best available. If at hand, a little sharp sand or thoroughly-decomposed manure might be added, and in this way render it more agreeable to the plants. Do not omit to thoroughly clean out the boxes prior to the refilling; also see that the drainage holes are free. If time permits, a few hours' drying will be of benefit. Finally, insert a good drainage of broken pots or similar material.

THE CHOICE OF PLANTS for the purpose in view is not large, though there are a few bright evergreens and shrubs that cannot well be overlooked. One of the best of these is Veronica Silver Queen, whose cream and silvery uniformly-coloured leaves render it an ideal subject. The plant, too, has a distinctly bushy habit and, being dwarf, is in every way excellent. Plants of this might alternate with dwarf examples of Lawson's Cypress or the more compact form known as erecta viridis. Other boxes might be filled with the Golden Cypress or the blue-leaved Retinospora squarrosa, or the latter in conjunction with Silver or Gold Euonymus. Where brightness is particularly aimed at, and in towns and enclosed areas—despite what the opposers of everything variegated say to the contrary—much might be said in its favour, the exclusive use of the golden or silver leaved plants named might be indulged in, with good results. Things to avoid when employing these bright-foliaged subjects are window-boxes with highly-glazed tile fronts, which detract not a little from or are antagonistic to the plants. Green glazed tiles would, however, be quite suitable.

THE MORE SUITABLE BULBOUS PLANTS for inserting along the fronts of these boxes are Crocuses and Snowdrops, and by arranging the shrubs at the back of the box a good double line of either could be accommodated. In those instances where the window-sill is large and wide, these small bulbous-rooted subjects might be planted to face both the room window and the highway, the first-named method affording an additional attraction when in flower from within doors. Other methods of adding brightness to surroundings where not much brightness is usually found might occur to the ingenious amateur, whose mind in such matters is often enough a fertile source of originality. Quite a nice carpet of greenery may be had by planting Mossy Saxifrages, and by first inserting Crocuses or Snowdrops in the soil, pretty effects will be secured.

BULBS IN BEDS.—The chief plantings of these will have probably been completed, though there is yet time to do much in this direction should occasion require. This is particularly true so far as the May-flowering and Darwin Tulips are concerned, and certainly nothing finer than these, nothing more bold or handsome, could be planted. Stately, imposing, grand—call them what you will—these sections of a great race appear as a fitting finale—a sort of climax—to a flowering that for weeks has gone on without interruption. In planting, keep the bulbs at least 5 inches below ground, so that at flowering-time the plants will receive no injury from swaying about. S. N. N.

GARDENING FOR BEGINNERS.

LIFTING AND STORING DAHLIAS.

THE operation of lifting Dahlias should be carried out at this season on a dry day. Should damp or wet weather prevail, the roots, so soon as lifted from the open border, should be removed to a dry, airy shed to dry off, or, failing this, a cold frame or pit-frame from which frost must be excluded. To assist in the more speedy and satisfactory drying off of the tubers, the heads of the stems should be placed downwards, this having the effect of allowing the active sap to drain away.

By the aid of a digging-fork or a spade raise the tubers as a whole. Insert the spade at a safe distance from the roots, so that there shall be no risk of damaging them in the operation, and if the tool is got well down under the roots, the latter will be lifted intact, as shown in Fig. 1. In light soils very little soil will adhere to the tubers, but in those of a very heavy and retentive nature care should be taken to expose the roots to both sun and air during the daytime. If this rule is observed, the more retentive soil may be removed by the aid of a pointed stick, and in this way the preparatory work be completed. In order to expedite the drying-off process, some growers make up a rough frame or lattice-work of wood, the spaces between the strips of wood being similar in their character to an open paling. The tubers are then placed with the stalk downwards, and quite a number of roots may be accommodated in this way and the prospect of keeping tubers through the winter be enhanced thereby. The stems of the plants should be cut back to within about an inch of their base. Secure the label to each root by firmly tying it to a tuber with twine, and the storing of the tubers may then proceed apace.



1.—THE METHOD OF LIFTING DAHLIAS.

Where to store the tubers is a matter that may concern the novice, but this may be disposed of very quickly by saying that they may be stored where they are free from frost and damp. The place must not be overwarm, or the roots may be encouraged into developing growth, which is fatal to their well-being. The roots are frequently placed under the staging of a glass structure which is just sufficiently heated to exclude frost. They are more often stored in a dark cellar or spare room or dry shed, but always where the roots have ample protection against frost. It must be dry without a tendency to get damp at any time. When placed under the staging of a greenhouse, there is always the risk of drip reaching them, causing them to damp off or else encouraging premature growth when the tubers should be quite dormant. Each grower should adapt himself to his circumstances, devising means whereby full protection can be provided.

Shallow wooden boxes are most suitable for storing Dahlias where the grower has a dry cellar or frost-proof room in which to store his tubers. It is a mistake to bury the tubers in soil of any kind, as this has a tendency to induce them to rot. In absolutely dry quarters the tubers stored in shallow boxes may be safely covered with sand. I deprecate the use of Cocoanut fibre refuse, as this material absorbs moisture so readily and increases the risk of damping in consequence. In the case of beginners having only a few plants, it is better to utilise a number of small boxes, such as that represented in Fig. 2, arranging each root so that it does not rest on its neighbour. Such boxes may be stored in spare cupboards, &c., very conveniently if the tubers are covered with a layer of straw or a couple of sheets of brown paper. It is astonishing how effective the latter is in affording protection in frosty weather, and when either straw or brown paper is used, it is so easy to inspect the tubers from time to time during the winter. On the right of Fig. 2 there is depicted a Dahlia root with the stem turned downwards to allow the sap to drain away, and when this is satisfactorily accomplished it is stored away in a box as illustrated.



2.—TUBERS STORED IN BOX. THE ROOT ON THE RIGHT IS PLACED STEM DOWNWARDS TO ENABLE THE SAP TO DRAIN AWAY.

Should any of the tubers show signs of decay, it may be possible to save the root by cutting away the damaged tuber. It would be wise, however, to apply lime to the wound made by the cut. Frequent inspection of the roots enables the grower to detect damp or rot at its inception, and by a simple process of dusting the affected tuber with lime it may be saved from actually rotting. D. B. CRANE.

WINTER TREATMENT OF ACHIMENES.

MANY persons who grow Achimenes for the first time are often much puzzled as to how they ought to treat the small tubers or corms in the winter. The corms are very brittle and are soon damaged. Instead of interfering with them at the present time, it is better to leave them undisturbed in the soil until they are wanted again next spring. In the meantime the faded tops must be cut off (not pulled) 1 inch above the soil-level, and the pots then stored in a dry place in the greenhouse, but at least 3 feet from the hot-water pipes. Water must be withheld throughout the winter. In the early part of spring, when the time comes to start the corms into growth again, they should be carefully removed from the soil in the pots, pans, or baskets. I have already referred to the brittleness of the corms, and, as the soil sometimes gets very hard after remaining dry all the winter, the corms get broken off badly through being encased, as it were, in the hard lumps. To avoid this the cultivator should water the soil in the pots and allow it to drain for two or three hours. When turned out it will crumble nicely and so free the corms in it. Batches of the tubercles or corms should be started in heat any time from February till April. SHAMROCK.

CHRYSANTHEMUMS

WORK IN NOVEMBER.

AT the present time cultivators are realising the fruits of a year's work. Some—the great majority—will be perfectly satisfied, others dissatisfied and firmly resolved to do better next year. Well, seasons vary so much. The weather during the past two or three years has been rather dull and somewhat cool. This year we have had very hot weather, and although first-crown buds have been the best in cool years, they are, in some instances, hard this year, whereas second or very late first crowns are turning out well. A cultivator showed me a fine collection of plants recently. Pointing to some grand specimens of the variety Master James, he said, "What is the matter with those plants?" They appeared to be all right. "Well," he remarked, "they have seed florets in the centre and no petals; the only petals are those forming a fringe on the outside." The buds were first crowns, and the first crowns generally contain many petals. I think this is an isolated case, as the early buds of Master James in other collections are opening well and are full of petals.

Damping.—A cultivator is always much disappointed to find that the beautiful blooms he has produced after so much hard labour are damping badly. Well, where the petals are likely to be lost through cold draughts and damp, the cultivator must not ventilate much at the front of the house. Coarse scrim should be fastened over the open ventilators always at the bottom of the house, and over those at the top during foggy weather. It is well to slightly shade the blooms every morning for a couple of hours or so if the sun is shining until the excessive moisture has evaporated. Red, bronze and chestnut coloured blooms must be shaded with newspapers or even tissue paper while the sun is shining, as the petals always damp more than those of white or yellow sorts. It is a wise plan to place a sheet of white blotting-paper 2 inches or 3 inches above any extra fine blooms every day about sunset, and remove it about ten o'clock each morning. The blotting-paper will absorb any atmospheric moisture immediately surrounding the bloom, and therefore help to preserve it.

Keeping Blooms.—Plants which are bearing fully-developed blooms must be removed to a cool room or a dry shed which can be kept quite dark. Failing any such structure, the cultivator must place all the forward plants in the coolest and driest part of the house, and shade the glass immediately above them every day whether it be bright or dull. Blooms may be kept fresh in a cut state for quite a week or ten days if placed in slightly salted water in bottles in a darkened cupboard or room. Fresh water must be put into the bottles every four days, and each day a very small portion of the stem should be cut off with a sharp knife.

Preparing the Blooms for Show.—As the flowers approach full development, carefully pull out all ill-shaped petals and the yellow seed florets from the centre of each bloom; then the other petals will fall into place, as it were, and form compact blooms. Very often it will be found that the central petals cannot close up on account of the presence of the yellow seed florets. Do not bruise the petals retained, else they will decay and must be taken out also, and this would mean spoiling the bloom altogether. Arrange the cut blooms on the boards so that the petals are just clear of the wood, and be careful to get harmony of colour as nearly as possible. Blooms must not be overcrowded in vases. Place them so that each one can be distinctly seen. Specimen plants must have all faded leaves picked off and be slightly tilted towards the front, so that both judges and public can see the whole of the plant. Groups should be lightly arranged with harmony of colour, and in the case of groups, as well as specimen plants, clean, healthy foliage is essential. Freshness and a rich, clear colour must be possessed by each bloom, staleness being a great defect. Size, of course, is essential if there is also refinement. Depth in the incurved section must be a feature of every flower, and evenness of petal, clearness of colour and good centres or "eyes" must be the chief characteristics of the singles. AVON.

THE KITCHEN GARDEN.

MUSHROOMS IN THE OPEN GARDEN.

(In Answer to a Correspondent.)

MUSHROOMS can be grown as successfully out of doors as they can in houses or under the shelter of sheds; but it is a crop that the grower must take special pains in preparing for, or failure is sure to follow. Mushrooms may also be grown in meadows by inserting pieces of spawn in the turf at distances apart of 6 feet to 7 feet. The way to do this is to cut a hole 1 foot deep and 1 foot wide in the turf, saving the top sod to put down again. Fill the hole with fresh horse-manure and the short, littery straw which accompanies it in equal quantities. Expose the manure to the weather to dry for a fortnight, but protect it from rain. At the end of this time put it up in a good-sized heap to ferment. Open it out in about eight days to let out foul steam, put up again for eight days, and open afterwards in the same way in another eight days; then the manure will be ready to place in the holes and for the spawn to be inserted in it. In filling the holes with manure, bear in mind to leave room for the sod to be placed back at the same level as it was before. Tread the manure in the holes as hard as possible, and remember it must be in a fairly dry condition at the time.

Spawn is sold in cakes, termed "bricks," measuring usually 9 inches by 4 inches. Break each brick with the hands into ten equal pieces, burying one piece in the manure in each hole, using also the crumbly parts which fall from the pieces. Plant deep enough to allow a quarter of an inch of manure to cover the spawn; then place over the manure half an inch of the soil which came out of the hole, treading it hard down, and finishing by placing the sod of earth with the grass on back in its place, ramming it well down. The best time to do this is early in May. Mushrooms should then appear—probably not in July, as it is then generally too hot for Mushrooms to grow in the open, but through August, September, and the best part of October if the weather is favourable.

For beds out of doors the manure is prepared in the same way. It must be from corn-fed horses. The beds should be placed in some well-sheltered shady position, as Mushrooms are difficult to produce during the months you mention, on account of the heat then usually prevailing; therefore let the beds be placed where they can be kept shady and cool. They are built in round-topped ridges 2½ feet wide and the same in height. In building, tread down as hard as possible. Insert a thermometer in the bed about 9 inches deep as soon as it is finished. The heat will probably rise to 85° or 90° Fahr. in the course of eight or nine days, after which it will begin to fall. As soon as it falls to 75° it will be time to spawn the bed. The spawn should be prepared in the same way as for the turf, and the pieces inserted 10 inches apart all over the surface of the bed. The beds must be protected from rain by covering with straw, mats, or some such material. In the course of a week after the spawn has been inserted it will commence to run, meaning that tiny white threads will radiate from it into the manure and a sort of mildewy mould appear around it. It will now be time to apply a coating of loamy soil to the surface of the bed to the depth of half an inch when well beaten down hard with the back of a spade.

The work is now completed, excepting that the bed must be kept dark and protected from rain by being covered over. It is a good plan to place a thermometer on the surface of the bed under the covering, and an effort should be made to keep the temperature as near as possible about 57° to 60° Fahr. If it is found below this figure, more covering must be added; if above this, some must be taken off. The beds should be uncovered in about five weeks' time, brushing away any mould or dirt which may have settled on the surface. If the soil should appear at all dry, give the bed a watering with tepid water and cover up again as before. In a fortnight or less Mushrooms should appear in good numbers. When gathering do not cut the stalks, but give each Mushroom a gentle twist with the hand, pulling up with it the whole of its stalk and the small pieces of roots usually attached to it. A good Mushroom-bed remains in profit from six to eight weeks. Afterwards it should be broken up and the manure applied to the land. Therefore if you wish for a constant supply a new bed should be made every month or six weeks. Your first bed should be ready for spawning early in May.

Spawn, in the first place, is obtained from horse-manure, and is specially to be found in tracks where horses are used for grinding corn, roots, or for cutting chaff by machinery. But manufacturers make it by inserting pieces of ordinary spawn into the bricks (these are made chiefly of manure) and then subjecting the bricks to a certain temperature, about 60°, when the spawn will run and permeate the whole of the brick. After this it is allowed to cool down, and is kept in a cool, airy place until wanted for use. In buying spawn you should stipulate for it to be at least less than a year old. Any seed merchant advertising in THE GARDEN will supply you with the best. OWEN THOMAS, V.M.H.

KOHL RABI.

THIS vegetable, it is interesting to observe, is finding more and more favour in this country. On the Continent, Knol Kohl, as it is invariably called, is an everyday vegetable and much liked, as by many it is preferred to the Turnip. Of course, the Kohl Rabi used for garden purposes must not be confounded with the large field root, as the garden varieties are small, shapely roots of good flavour, with a sweet, nutty flesh, and almost

invaluable in hot countries where the Turnip fails. The root of this vegetable is valuable for using in a small state—I mean cut up with stewed meats. It is very palatable, and, unlike the Turnip, does not quickly age and get hot and bad flavoured. For many years I have grown it, and found it most useful, as this root succeeds when the Turnip fails; and when anyone with little trouble can find such a good substitute it is most satisfactory. There are not many varieties. The earliest is a small white root and of good flavour. The Short Top Green, so much grown on the Continent, is a good summer variety, and not readily influenced by heat or drought. There is also a purple form, but as regards this root it only differs in colour; it is equal in quality. The same culture as given the Turnip will suit the Kohl Rabi. Sown for a summer crop, the roots remain sound a long time. A large sowing is not advised, but sufficient to meet a failure with Turnips. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Plants under trees (*W. B. F.*).—You would find Solomon's Seal, London Pride, Lilium candidum, L. croceum, L. testaceum, Foxgloves, Evening Primroses, Anemone japonica in all its varieties, Flag Iris, Columbines, Bocconia cordata, Verbascums, double crimson and other Pæonies, Aster acris, A. Amellus in variety, Asperula odorata, many Campanulas, Betonica grandiflora, Lythrums, Lychnis, Saxifrages of the big-leaved or Megasea type, with Valerians, Rudbeckia, Veratrum, Vinca and others, all useful for planting near tree shade.

Meadow Saffron or Colchicum (*W. H. C.*).—The bulb sent is that of a Meadow Saffron or Colchicum, it being the typical C. autumnale, of which there are several other forms. The best kinds to grow are C. speciosum varieties, the pure white and the rose being excellent. The Colchicums succeed in good ordinary border soil, and should be planted at once, burying the bulbs about 5 inches deep. The plants flower during the autumn without leaves, the latter appearing in the spring and continuing into June. The bulbs are not infrequently flowered in bowls of gravel or sand in the dry state, but the process reduces the vitality of any bulbous plant, which naturally belongs to Mother Earth.

TREES AND SHRUBS.

To kill tree stumps (*F. L.*).—If you bare the roots of your Poplars, then bore holes half an inch or more in diameter past the middle of each main root and fill the holes with common salt, you will have no difficulty in killing the trees. Sulphuric acid or ordinary weed-killer would have the same effect, but they are more dangerous things to use.

Yews for topiary work (*P. H. J.*).—If you plant Yews now, it would be advisable to leave them unclipped until next spring. When you order the plants, insist that they shall be supplied with good balls of earth attached to the roots. You will find the training a long and tedious business, and we should strongly advise you to purchase two plants which are already clipped into the desired shapes. Single plants would be better for each peacock than double plants.

MISCELLANEOUS.

Names of fruit.—*F. H. O. Pease.*—1, Allington Pippin; 2, Cox's Orange Pippin; 3, Barchard's Seedling; 4, Reinette Grise; 5, Cornish Gilliflower; 6, King of the Pippins; 7, Striped Beefing; 8, Potts' Seedling; 9, Fearn's Pippin; 10, Margil; 11, Lamb Abbey Pearmain; 12, Sandringham; 13, Lord Derby.——*H. H. M.*—1 and 8, Blenheim Orange; 4, Newton Wonder; 5, Flanders Pippin; 6, Dumelow's Seedling; 9, Golden Noble. All the other numbers had become detached and mixed.——*J. Green.*—1, Egremont Russet; 2, Ross Nonpariel; 3, Hormead's Pearmain; 4, Waltham Abbey Seedling; 5, Rosemary Russet.——*J. C. S.*—1, Marie Louise d'Uccle; 2, Maréchal de la Cour; 3, rotten; 4, Thompson's; 5, Josephine de Malines.——*Lieut.-Colonel, Frimley.*—Apple, Kedleston Pippin; Pear, Baronne de Mello.——*Scholastic.*—1, Golden Noble; 2, no one seems to know the real cause of the spots; 3, so far no real remedy has been discovered.——*Reader.*—D, Apple Colonel Vaughan.——*R. P. Royston.*—Cox's Orange Pippin.

Names of plants.—*M. J.*—1, Polygonum vaccinifolium; 2, Acæna Novæ-Zelandiæ; 3, Muehlenbeckia axillaris.——*A. J. B.*—Datura Stramonium variegatum, a variegated form of the Thorn Apple; a common weed in gardens.——*Ullswater.*—1, Acæna Novæ-Zelandiæ; 2, Alchemilla vulgaris; 3, Saxifraga, cannot name without flowers; 4, Dianthus barbatus; 5, Veronica decumbens; 6, Saxifraga oppositifolia; 7, Iberis species, cannot name without flowers; 8, Sedum rupestre; 9 and 13, too scrappy to identify; 10, Phlox subulata variety; 11, Genista tinctoria; 12, Gypsophila species; 14, Helianthemum vulgare var.; 15, Veronica loganioides. The numbers of some were quite illegible.——*Beauty.*—1, Aster Novi-Belgii; 2 and 3, seedlings of Aster Novi-Belgii; 4, A. patens; 5, A. Novæ-Angliæ pulchellus; 6, A. cordifolius; 7, A. multiflorus.——*Fernery.*—1, Aspidium angulare var. lineare; 2, no specimen; 3, Nephrodium dilatatum; 4 and 5, crested forms of Asplenium Filix-fœmina.——*H. Moore.*—1, pink, Veronica carnea; 2, white, V. angustifolia; 3, pale lilac, V. diosmæfolia.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

FAVOURED with ideal weather, the National Chrysanthemum Society opened its great autumn exhibition on Wednesday, November 1, and it was continued on the two days following. As in former years, the large miscellaneous groups attracted much attention by their effective staging. The Dean Memorial gold medal was this year awarded to Mr. G. Hunt, Ashtead, for a grand collection of incurved blooms. This medal is awarded at the discretion of the committee to any exhibit deemed specially worthy of this particular award. The large gold medal awarded by Messrs. Clay and Son for the best miscellaneous exhibit was won by Mr. Norman Davis of Framfield, Sussex, for the meritorious group described in this report.

DIVISION I.

The great vase class, for twelve vases of specimen blooms of Japanese Chrysanthemums, was won by Mr. A. Chandler, gardener to A. James, Esq., Coton House, Rugby. Three blooms of each were shown in a vase, and the varieties shown were Frances Jolliffe, James Lock (magnificent blooms of great depth), George Hemmings, Master David, Mrs. H. Thornton, Master James, Eclipse, Evangeline, C. J. Bruyard, Mrs. F. C. Stoop, Algernon Davis and Reginald Vallis. Second, Mr. W. Mease, gardener to A. Tate, Esq., Downside, Leatherhead, with remarkably good blooms of White Queen, Hon. Mrs. Lopes, Duchess of Sutherland (still one of the best yellows) and magnificent pure white blooms of Mrs. A. T. Miller.

The best floral display furnished with suitable foliage (trade excluded) in Class 2 was arranged by Mr. R. B. Leech, Dulwich.

The special class and challenge trophy for a display of cut blooms, open to affiliated Chrysanthemum and horticultural societies, were won by the Dulwich Chrysanthemum Society.

DIVISION II.

Thirty-six incurved blooms, distinct: So fine was the winning exhibit by Mr. G. Hunt, gardener to Pantia Ralli, Esq., that it was awarded the Dean Memorial gold medal. The blooms throughout this class were even and uniform. The best blooms on the winning board were Edwin Thorp, Godfrey's Eclipse, Buttercup, Mrs. F. Judson and John Wainwright. Second, Mr. W. Mease, with a grand lot, which were a little lacking in finish.

Forty-eight Japanese blooms, distinct: This class, always looked upon as one of the leading features of the exhibition, was this year won by Mr. C. Moore, gardener to Mrs. W. Clark, Farnham, with a magnificent collection. Among the best blooms were Bessie Godfrey, Frances Jolliffe, Miss Nellie Brockman, Mrs. A. T. Miller, Leslie Morrison and Mme. Radaelli. Second, Mr. Mease, with an almost equally good show, including a remarkably fine bloom of the novelty King George V.

Twelve vases of incurved blooms in a vase: This class was won by the able gardener, Mr. G. Hunt. His vases of Buttercup, C. H. Curtis, Godfrey's Eclipse, Romance and Emblème Poitevine (all yellows) were much admired.

Mr. H. Lloyd, gardener to Captain C. Wiener, Ewell Castle, Ewell, secured Sir Albert Rollit's prize for twenty-four blooms of Japanese. His best blooms were Reginald Vallis, Rose Ellis and Rose Pockett.

There were many entries for the special prize offered by the Ichthemic Guano Company for twelve Japanese blooms arranged for effect. Mr. Mease was the winner, and his blooms were shown off to the very best advantage by such foliage plants as Crotons, Grevillea robusta and Asparagus plumosus; second, Mr. A. Smith, The Convent Gardens, Roehampton.

Mr. Mease was again successful for twelve incurved blooms, showing Edwin Thorp, Romance and Mrs. J. Wynne in tip-top form. The prizes in this class were offered by Mr. H. W. Thorp.

Twelve bunches of disbudded Chrysanthemums as grown for market: The winners in this class were the well-known market-growers, Messrs. Harrison and Cragg of Heston. Their most attractive bunches were Phœbe (pink), Heston Bronze (new), Crimson King and Mary Thorp (bright pink).

There were three keen competitors for twelve Japanese blooms (amateurs). The first prize fell to the lot of Mr. T. Sharpe Stone, Greenhithe, for a very creditable dozen, in which Reginald Vallis, Mme. G. Rivol and Miss A. Nicoll were prominent blooms.

The baskets of autumn foliage and fruits were better than we ever remember having seen them before. The first-prize basket, from Mrs. Brewster of Canterbury, was very beautiful. It was composed of Traveller's Joy, Brambles, Honesty, Gladwyn Iris in fruit, Rose heps, Cape Gooseberries, Spindle Tree in fruit, crimson Oak and other foliage shrubs.

The dinner-tables were exquisitely decorated. In the class for yellow and bronze flowers, very beautiful tints of both flowers and foliage were used. The first-prize table, by Mrs. A. Robinson, Carshalton, was lightly trailed with Ampelopsis foliage; a very beautiful table indeed. There were nearly a score of entries in this class, and all of them, without exception, were displayed in good taste.

Mrs. Robinson was second for the decorated table in any other colour, the first place being secured by Mr. T. W. Stevens, Sydenham, for a beautiful combination of crimson, pink and white flowers. Crimson-tinted Ampelopsis harmonised with the crimson flowers.

The amateur fruit classes were again a success. Grapes of excellent quality were shown. Mr. E. C. Wickens, gardener to C. Bayer, Esq., Tewkesbury Lodge, Forest Hill, was first in the class for three bunches of white Grapes, showing Muscat of Alexandria in fine form. The same exhibitor was successful with three first-rate bunches of Gros Colmar.

MISCELLANEOUS EXHIBITS.

These were the chief feature of this great show, and, together with the many exhibits in the competitive classes, made up an exhibition that redounds to the credit of the National Chrysanthemum Society. The group of H. J. Jones' Nurseries, Lewisham, S.E., filled the whole of the front of the vast orchestra, and represented all types of the Autumn Queen. The flowers were set up on long, highly-elevated stands at the back of the display, and numerous smaller stands and Oriental vases in the centre and front of the group, which was no less than 14 feet deep. Crotons, Ferns, Nephrolepis and other foliage plants gave a beautiful finish to the whole display. Mrs. Trevor Williams, Margaret Smith and Mary Farnsworth were grand Japanese sorts. Large gold medal.

Mr. Norman Davis, Framfield, Sussex, was *vis-à-vis* with the group already mentioned at the other end of the Central Transept. Vases of high-quality flowers were most artistically disposed, the blooms representing Japanese and singles of the better varieties. Countess of Granard, December Gold and White Queen were grand Japanese blooms, and the singles were superb. Large gold medal and gold medal for best exhibit.

Mr. Philip Ladds, The Nurseries, Swanley Junction, Kent, had a charming circular group of Chrysanthemums, Carnations and Spiræas in the middle of the Central Transept, in which the Chrysanthemums were grandly represented. Market sorts predominated, and these were notable for their good colour and pleasing finish. The flowers were arranged in vases and stands of different form, and the picture was most interesting. Gold medal.

Messrs. Butler Brothers, Bexley Heath, set up a group of their inimitable Chrysanthemums in pots. Five-inch pots in which were growing lovely plants of Caprice du Printemps and its several sports, Tapis d'Or, Le Pactole, Felton's Favourite and many other good things made up a noteworthy exhibit. The average height of pot and plant was 18 inches. Silver-gilt medal.

A pretty circular group of Chrysanthemums and a collection of fruit won a gold medal for Messrs. John Peed and Son, West Norwood, London, S.E. The blooms were large and of high culture, and their arrangement left nothing to be desired.

A large gold medal was well won by Messrs. H. Cannell and Sons, Swanley, Kent, for a grand collection of Apples of high quality. The fruits were large, well coloured, and the varieties most representative. The same firm made a magnificent exhibit of single and decorative Chrysanthemums and a superb collection of Zonal Pelargoniums, for which the high award was made.

Mr. Frank Brazier, Caterham, Surrey, set up a large and varied group of outdoor and decorative Chrysanthemums, in which were some very fine single sorts, notably his Caterham Bronze, for which a first-class certificate was given. Large silver medal.

Mr. H. W. Thorp, Durrington, Worthing, staged a pretty group of decorative and exhibition Chrysanthemums in pleasing variety. The exhibition blooms were

very fine. Walter Parsons, Mrs. F. C. Stoop, Kara Dow, and Mrs. Trevor Williams were a few of the good things. Silver-gilt medal.

A splendid exhibit of singles by Messrs. Cragg, Harrison and Cragg, Merrivale Nurseries, Heston, Middlesex, was much admired. The flowers were of the highest quality, and included, among others, F. King, Bronze Pagram and a bright sport from the last-named, Mrs. W. Garner. Celia was also superb, as were Roupell Beauty and others. Large silver medal.

Mr. W. J. Godfrey, Exmouth, Devon, won a large silver medal for a table of Chrysanthemums. Climax, single, is a very large crimson, and there were other noteworthy sorts of considerable merit.

Messrs. W. Wells and Co., Limited, Merstham, Surrey, excelled on this occasion, putting up a group of a magnificent description. Large exhibition blooms formed the background, and masses of single and decorative kinds the centre and front of the group. It was a very fine effort, and was much admired. Mrs. R. A. Witty, Mrs. Gilbert Drabble and Mrs. R. Luxford were grand Japanese; and of the singles Miss Margaret Walker, Dorothy Dann and Miss Mary Pope were fine examples. Large gold medal.

A gold medal was deservedly awarded to Messrs. David Russell and Son, Brentwood, for a beautiful group of trees and shrubs and a table of fruit. This was one of the best efforts of this firm, and was highly commented on.

A very long table group of Ferns from Messrs. H. B. May and Son, Upper Edmonton, was a pleasing display. The subjects were most comprehensive in their character, and were an object of much interest to many. New and choice plants were largely in evidence, as well as numerous fine species. Small gold medal.

Mr. W. H. Page, Tangley Nurseries, Hampton, staged his three new Zonal Pelargoniums Winter Cheer, Fiscal Reformer and His Majesty, for which a silver medal was awarded.

A pretty display of cut Chrysanthemums, set up in vases and stands by Messrs. Wilton and Goddard, Durrington, Worthing, won a large silver medal. Exhibition, Japanese and single-flowered sorts were represented, and made an effective display.

A group of Roses and a group of Dahlias in great variety for so late in the season were put up by Hobbies, Limited, Dereham, Norfolk, and deservedly won a small gold medal. The Dahlias were especially good, and were a pleasing feature in a fine exhibit.

Mr. Walter A. Voss, Rayleigh, Essex, staged a highly-meritorious collection of Apples and Pears for an amateur, and well won a large silver medal. The fruits were of high quality, well coloured, and were shown in charming variety.

Messrs. Joseph Cheal and Sons, Crawley, Sussex, exhibited a table of Apples of a most comprehensive character, embracing numerous varieties of good quality, and the fruits were well done. They well merited the large silver medal awarded to the display.

Mr. J. Williams, Ealing, was awarded a small silver medal for his rustic table decorations. This exhibitor has done much to popularise the use of cut flowers in decorations in the numerous metal devices that he has created.

Sundries were exhibited by Mr. William Cooper Matthews, Chemical Works, Berkhamsted; lawn boots, &c., by Mr. H. Pattisson and Co., Streatham; Messrs. Walter Voss and Co., Limited, Milwall, E.; Ichthemic Guano Company, Ipswich; Messrs. D. Dowel and Co., Hammersmith; Mr. G. W. Riley, Herne Hill, S.E.; Mr. J. Hans, Lower Clapton, N.E.; Mr. A. Edward, Edwardian ware; and Messrs. H. Scott and Sons, South Norwood, S.E.

The following varieties were recognised by the floral committee:

Yellow Caprice.—A pretty yellow sport from Caprice du Printemps, a well-known decorative market variety. Commended. From Messrs. Butler Brothers, Bexley Heath.

Heston Bronze.—This is a first-class market Japanese sort of beautiful form, colour light bronze. First-class certificate to Messrs. Cragg, Harrison and Cragg, Merrivale Nurseries, Heston.

Celia.—Undoubtedly one of the finest large-flowered singles of the season. The flowers have several rows of petals, and the colour is bright yellow. First-class certificate. Also from Messrs. Cragg, Harrison and Cragg.

Mrs. Percy E. Wiseman.—This is a fine incurved bloom of a primrose colour, and is a sport from the well-known variety Mrs. J. P. Bryce. First-class certificate to Mr. P. E. Wiseman, Earl's Cottage, Woodham, Walter.

Mrs. John Peed.—A large-flowered single of superb quality, colour bright yellow. First-class certificate to Messrs. John Peed and Son, West Norwood, S.E.

White Beauty.—A superbly fine white large-flowered single with a suspicion of blush upon the florets. Commendation to Mr. W. Higgs, The Gardens, Fetcham Park, Leatherhead.

Caterham Bronze.—The descriptive name in this case is somewhat misleading. The flowers are of medium size, the plant free-flowering, and the colour a bright bronzy terra-cotta. Most effective. First-class certificate to Mr. F. Brazier, Caterham.

R. G. Burge.—Without a doubt the finest white large-flowered single of the present season. It is a bloom of splendid quality. First-class certificate to Mr. Philip Ladds, Swanley Junction, Kent.

Charles Dickens.—A distinct and beautiful single of medium to large size, and of splendid even form; colour golden yellow. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

Mrs. Andrew Walker.—This is a beautiful pleasing rich chestnut sport from the popular decorative market variety Freda Bedford, and is similar in every respect but colour to the parent variety. First-class certificate to Messrs. W. Wells and Co., Limited, Merstham, Surrey.

Dorothy Dann.—A distinctly free-flowering single of medium size that is very attractive in sprays; colour bronzy terra-cotta. Commended. From Messrs. Wells and Co., Limited.

Miss Margaret Walker.—One of the largest singles in cultivation, and a bloom of the highest quality. Long petals build a bloom of ideal form; colour bronze. First-class certificate also to Messrs. Wells and Co., Limited.

Shoreham Old Gold.—A very distinct and interesting medium-sized single of good form and of an old gold colour. Commended. From Mr. L. Lawrence, Shoreham.

A very large number of novelties the floral committee wished to see again, and among these were many varieties of great promise.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THERE was a good attendance at the last meeting of the members, when Mr. W. Bazeley of the Twyford Nurseries read a most interesting and practical paper on "The General Routine in a Small Collection of Orchids." He first referred to the various Orchid-houses required by a grower in order to maintain the varying degrees of heat necessary, and then went on to speak of ventilation, cleanliness of the plants and houses, arrangement of plants, labelling, shading, potting and potting materials, watering, pests and their destruction, imported plants and their treatment, propagation by division and seed, and the resting of the plants. It will thus be seen that the paper was fairly exhaustive and touched on all vital points. A splendid discussion followed, and numerous questions were answered by Mr. Bazeley. A hearty vote of thanks was carried with acclamation. There were some good exhibits. Mr. G. Howe showed ten dishes of Apples in prime condition; Mr. Tunbridge, some good Tomatoes and Cucumbers; and Mr. W. Glen, some large heads of Celery. The Apples, Tomatoes and Cucumbers were awarded certificates of cultural merit.

BOURNEMOUTH CHRYSANTHEMUM SHOW.

OCTOBER 31 AND NOVEMBER 1.

THE twenty-fifth annual exhibition of autumn flowers, fruits and vegetables was held in the Winter Gardens on the above dates, and proved to be a great success. Fine weather favoured the event, and the public flocked to the spacious Pavilion to look at the choice flowers and fruits there staged. Eight groups occupied the centre of the Pavilion, and were surrounded and intersected by cut flowers, plants and fruits. Sir Trevor Lawrence, in declaring the show open, offered hearty congratulations to Bournemouth in being able to produce a show which was very much more complete and better than he could have thought possible. A presentation of an address was made by the president, J. Elmes Beale, Esq., to Mr. G. H. Rolls from the committee and on their behalf. Mr. Rolls is now vice-chairman, has long been chairman, and has done much to bring the show to its present high state.

GROUPS AND CUT FLOWERS.

Mr. Usher, gardener to Sir Randolf Baker, Bart., Ranston House, was first in the big group class, winning the silver challenge cup presented by Mr. G. H. Rolls, J.P. The Park Nurseries, Limited (Mr. Welch), Bournemouth, came second with a charming group; and Mr. Evans, gardener to G. J. Fenwick, Esq., was third. In the class for a group of decorative and single Chrysanthemums, Mr. Evans won first position, Mr. Pearce, gardener to Mrs. Ormond, coming a close second, and Mr. Usher third. Mr. Cox won the cup presented by The Dowager-Lady Miller for a group of Chrysanthemums.

CUT BLOOMS.

A Midland exhibitor, Mr. Woolman, Shirley, Birmingham, won in the class for twenty-four blooms, distinct varieties, on stands, Beecham Keeling, Dreadnought, S. F. Richardson, Mary Farnsworth, Rose Pockett, Thomas Figg, Mrs. L. Thorn, Mrs. A. T. Miller, Kara Dow, Frances Jolliffe, Eclipse and Evangeline being noteworthy blooms. Mr. J. R. Tooley, gardener to Hugh Andrews, Esq., Winchcombe, was second, and staged splendid blooms of Pockett's Crimson, Purity and W. Beadle. Mr. Usher was third. In the class for nine Japanese, three blooms of each, nine distinct varieties, Messrs. Woolman, J. R. Tooley and Usher won in the order named. The best blooms in the show were found in this class, Frances Jolliffe being the most noteworthy. Mr. Usher had the best lot of Japanese incurved. The varieties Lady Edward Letchworth, Miss A. Nicolls, Walter Jinks, George Mileham '08 and Mme. G. Rivol were the best. Mr. Tooley came in second, and third honours went to Mr. G. Barge, gardener to the Rev. C. H. Burrows. Mrs. Caroline Telfer presented a silver cup for two vases of Chrysanthemums, distinct, nine blooms in each vase, and Mr. Cox was the winner. Mr. Tompkins, gardener to the Dowager-Lady Miller, was the second prize-winner. For a group of cut blooms of Carnations with a base of Ferns, a silver cup and money prize were offered. Mr. Usher was the winner. Mr. Fay, Southampton, was second, but beat Mr. Usher in the class for six vases of Carnations. Zonal Pelargoniums, Begonias and table plants were well shown. Mr. Bealing had the best table decoration; Miss Jessie Kent the winning shower bouquet; and Mr. George Garner the best ladies' sprays, competition being very keen in all classes.

FRUIT AND VEGETABLES.

About sixty bunches of Grapes were staged. Mr Carter won in the open class for three bunches, distinct; Messrs. J. R. Tooley and George Garner second and third respectively. Mr. Garner won in the open class for two bunches of black Grapes, followed by Messrs. Hill and C. Barrett. Mr. Pope had the best two bunches of white Grapes. He was also successful in another class for two bunches of white Grapes, Messrs. Garner and Foxkett being second and third respectively. Messrs. C. Barrett, G. Garner and J. T. Steptoe were the winners in the order named in the class for two bunches of black Grapes in a corresponding class. Messrs. Cape, Wimborne, Hill, Kingston Lacey and Gould, Bournemouth, were the chief prize-winners in the classes for Apples and Pears, these fruits being magnificent.

NON-COMPETITIVE EXHIBITS.—AWARDS.

Gold medals.—Messrs. Sutton and Sons, vegetables; Mr. D. Stewart, Apples and Pears; Messrs. Charlesworth and Co. and Messrs. Mansell and Hatcher, Orchids.

Silver medals.—Mr. T. K. Ingram, miscellaneous plants (Clematises very fine); Miss J. Kent, Mr. R. Chamberlain and The Summerford Nurseries, Limited, floral designs; Messrs. Toogood and Sons, vegetables; and Mr. Edward V. Low, Orchids.

Highly commended.—The Park Nurseries, and Mr. Slade for Zonal Pelargoniums.

BRIGHTON AND SUSSEX CHRYSANTHEMUM EXHIBITION.

THE twenty-ninth annual exhibition took place on October 31 and November 1 in the Dome and Corn Exchange, magnificent weather prevailing. The number of exhibits staged were less numerous than usual, accounted for probably by the gloomy prospect overnight, when rain fell in torrents, which undoubtedly deterred many would-be competitors from putting in an appearance. However, a very satisfactory exhibition resulted, the quality of the exhibits in almost every instance being well up to the standard, while fruit and vegetables were very well shown.

COMPETITIVE CLASSES.

Plants (open). Circular group of Chrysanthemums arranged with Ferns or other green foliage plants, cut flowers and cut foliage for quality and effect, in a circle 8 feet 6 inches in diameter.—First, Mr. G. H. Bennett, gardener to Philip H. Bayer, Esq., Hatch Beauchamp, Withdean; second, Mr. G. Lambert (amateur), Chichester. Circular group of Chrysanthemums only.—First, A. J. Jones, gardener to E. M. Marx, Esq., Brighton. Twelve bush plants (Pompons only), not less than eight varieties, pots not to exceed 9 inches.—First, also a handsome silver cup and society's silver medal, fell to Mr. G. H. Bennett, who was followed by Mr. G. Lambert. Six bush plants (singles excluded).—Mr. G. Lambert secured first honours, followed by Mr. Sayers, gardener to S. Copestake, Esq., Hove, and Mr. G. H. Bennett, second and third respectively. Six bush plants, singles only.—First, Mr. H. Eastwood, gardener to Dr. Byrant, Tongdean, Brighton. Collection of Orchids.—First, Mr. W. Hill, gardener to G. W. Ryder, Esq., Keymer. Cut flowers (open). Thirty-six Japanese.—First and handsome silver bowl, together with society's silver medal, were secured by Mr. W. Evans, gardener to Mrs. Stewart Mackenzie, Lydhurst, Hayward's Heath; Mr. J. Harris, gardener to Colonel C. P. Henty, Avisford, Arundel, was second; and Mr. Charles Hack, gardener to Mrs. L. C. Joad, Patcham, third. The winning collection contained, among others, nice blooms of Mrs. A. T. Miller, Hon. Mrs. Soper, Splendour, Bessie Godfrey, Mme. G. Rivol, Reginald Vallis, Eclipse, Mrs. C. H. Totty, Sir Frank Crisp, Master David and Rev. R. D. Eves. Twenty-five Japanese as cut from the plant, not less than eighteen varieties.—The society's silver medal and first prize fell to Mr. C. Fox (amateur), Tunbridge Wells, who showed nice blooms of Reginald Vallis, Beatrice May, Evangeline, Mrs. Trevor Williams, G. Mileham '08, Walter Jinks and Lady E. Letchworth; Mr. James Stredwick, St. Leonards-on-Sea, second; and Mr. J. E. Hickson, gardener to Rev. F. S. Sclater, Newick Park, Lewes, third. Twelve Japanese, large-flowered.—First, Mr. Frank Cordell, gardener to Alfred F. Blades, Esq., Reigate; second, Mr. W. J. Finch, gardener to F. A. White, Esq, J.P., East Grinstead; third, Mr. J. C. Reeves, gardener to Captain H. Acton Blake, Rusper. Six incurved, one variety.—First, Mr. J. Harris with Embleme Poitevine.

AMATEUR DIVISION.

Twelve Japanese, not less than nine varieties.—First, Mr. C. Fox, who showed nice blooms of Beatrice May, Rose Pockett, President Viger, Mrs. A. T. Miller and G. Mileham; second, Mr. Harry West, Broadwater. Group of Chrysanthemums for quality and effect in a space 6 feet by 3½feet.—First, Mr. G. Fennell, Brighton; second, Mr. E. Farrell; third, Mr. F. Franks. Fruit (open). Grapes, three bunches of white.—First, Mr. Charles Earl; second, Mr. W. Lintott, gardener to Sir Walpole Greenwell, Bart., Caterham; third, Miss Smith, Brighton. Grapes, black, three bunches.—First, Mr. W. Manton, gardener to Mrs. Mashiter, Hurstpierpoint; Miss Smith second, and Mr. C. Earl third.

NON-COMPETITIVE EXHIBITS.

These constituted a distinct feature and added greatly to make the exhibition attractive, for which the following awards were given: Messrs. Balchin and Son, large arrangement of miscellaneous ornamental plants and Chrysanthemums, gold medal; Barnham Nurseries, excellent table of fruit, silver medal; Mr. Frank Woollard, Brighton, cut flowers, Roses, &c., and fruit, silver-gilt medal; Mr. G. W. Piper, Uckfield, fine stand of cut Roses, silver-gilt medal; Messrs. Allwood Brothers, Wivelsfield Nurseries, Hayward's Heath, nice stand of Perpetual-flowering Carnations, silver medal; Messrs. Wells and Co., table of cut Chrysanthemums and Carnations, silver medal. The two most noticeable exhibits in this section richly deserving of the gold medal, which in each case was awarded, were those of A. J. Nix, Esq., Tilgate Forest, Crawley, and Messrs. Toogood and Sons, the former staging a magnificent collection of fruit, the latter of fruit and vegetables.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE CALABASH PIPE GOURD.

IN response to the wishes of some of our readers, we have had this article prepared so as to give some information regarding the Calabash Pipe Gourd and its culture. The advent of the Calabash pipe dates from the last Boer War, or from the earliest years of the present century, for it is really a fashion in pipes copied from the Boers and other residents in South Africa. The Boers are said to have tried hard to obtain a monopoly in the manufacture of these pipes, and to have been very jealous of the distribution of seeds of the plant which produced the Gourds. Seeds have, however, been distributed widely of late years, and other countries, including the United States, are now in a position to produce all the Gourds required for home-manufactured pipes.

The plant producing the Calabash Pipe Gourd is a variety of the variable Lagenaria vulgaris, commonly called the Bottle or Club Gourd, a species widely distributed through the Tropics. The Calabash Pipe variety appears to have first created interest in South Africa, and to have been widely grown there for many years, though whether it originated there appears to be doubtful.

In countries where a fairly warm summer is experienced, it may be grown out of doors with success, and it is probable that fairly satisfactory results would be obtained in the South of England. The United States Department of Agriculture published an illustrated circular, No. 41, in 1909 on "The South African Pipe Calabash," giving details of its cultivation in the United States. The details of culture as set down there would be applicable to the warmer parts of this country, while in other quarters greenhouse or frame culture would doubtless give satisfactory results. Hot-beds are made almost level with the surface of the ground, and in these seeds are sown about April. The young plants are protected from frost by means of hand-lights until danger from that source is past, when they are allowed to run freely over the ground. Plants grown on the ground are found to produce more Gourds suitable for pipes than those grown against trellises. In common with all members of the large Gourd family, rich soil is a necessity. Vigorous specimens may produce from ten to twenty Gourds, but all are not suitable for pipes, for some grow too large and others too straight. A little may be done towards shaping the narrow neck of the Gourd when the fruit is very young by tying or pegging into shape, but the task is a very delicate one on account of the young fruits being very brittle. A fair percentage of Gourds assume suitable shapes, however, without any training.

The fruits are allowed to remain on the vines until the outer parts are quite hard, for if gathered before they are thoroughly ripe, difficulty is experienced in seasoning. On the other hand, they must not be allowed to remain long enough to be subjected to frost, for a severe frost is likely to cause injury. Dry, sunny weather is more favourable to the development of fruit than wet weather, for although the plants will take plenty of water, more satisfactory results are obtained from watering by hand than from the plants being subjected to an excessive amount of rain. The past summer, with its long-continued heat, has been ideal for the successful cultivation of these Gourds in England, providing they were well watered at frequent intervals. Seeds sown here on a slight hot-bed and the plants allowed to grow until they had filled a frame, which could be lifted off about mid-June, would probably give the most satisfactory results. If grown throughout the whole of their career in a frame or greenhouse, however, arrangements ought to be made for a free circulation of air at all times. Apart from the utility of the fruits of this plant, it is quite ornamental enough to receive attention from a decorative standpoint, either indoors or out. Trained against a pillar or trellis it quickly covers a wide area, and though many of the fruits will probably be too straight for pipes, some will assume the requisite shape. In any case, its cultivation is well worth undertaking on experimental lines. In the majority of gardens room could be found for the few plants that would be necessary to determine whether they could be successfully grown in the open or not. A pergola of Gourds, such as may be found in a few gardens, might well include some plants which, if they succeeded, would be of interest to both visitors and owners. It is highly improbable, however, that the cultivation of these Gourds on commercial lines is ever likely to prove successful in this country.

D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 20.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall, Strand, W.C.

November 21.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster, from 1 p.m. till 5 p.m. Lecture at 3 o'clock on "The 1912 International Horticultural Exhibition," by Mr. Edward White.

November 22.—Darlington Autumn Flower Show.

November 24.—Aberdeen Chrysanthemum Show (two days).

National Vegetable Society.—Owing to the poor attendance of visitors to the two shows held by the above society in London during 1910 and 1911 respectively, the committee have arranged to hold their exhibition next year in the Clarendon Hall, Watford, Hertfordshire, on Wednesday, October 2. By doing so they hope to bring the work of the society before a more rural population. Watford is noted as a large vegetable-growing centre, and considerable interest is taken in all phases of horticulture by the residents. It is situated on the London and North Western main line, and is easily reached from most parts of the country. The Clarendon Hall is situated in the centre of the town, and offers every facility for the holding of a large and interesting exhibition. The committee hope that all who are interested in the cultivation of vegetables will join the society and assist them in their good work. The hon. secretary, Mr. E. G. Quick, will be pleased to receive offers of prizes to be competed for at the above exhibition, and also to furnish particulars concerning the work of the society. His address is Kelmscott, Harrow View, Wealdstone, Harrow. The annual general meeting of the members of the society will be held at the Horticultural Hall, Vincent Square, Westminster, on Tuesday, November 21, at 2.30 p.m.

The National Chrysanthemum Society.—The annual dinner in connection with this society will take place in the Royal Venetian Chamber, Holborn Restaurant, High Holborn, W.C., on Wednesday, November 29, at 6.15 p.m. for 6.45 p.m. Sir Albert Rollit, D.C.L., LL.D., president of the society, will preside. The challenge trophy, the Holmes Memorial cups and medals will be presented to the winners during the evening. The committee are anxious to see a large gathering of members and friends, and particularly request the presence of exhibitors entitled to receive cups or medals. A remittance should accompany the application for tickets in each case, the price of which is 5s., exclusive of wine, and applications should be made to Mr. Richard A. Witty, secretary, 72, Savernake Road, Gospel Oak, London, N.W. A conference will be held at Carr's Restaurant (Dickens Room), 264, Strand, W.C., on Monday, December 4, commencing at 7 p.m., Sir Albert Rollit, D.C.L., LL.D., president of the society, in the chair. The following papers will be read: "The Culture of Disbudded and Spray Blooms," by Mr. F. W. Ladds, to be followed by a discussion; "Soil Preparation and the Use of Some Chemical Foods," by Mr. P. A. Cragg, to be followed by a discussion. All members of the society are cordially invited to attend and take part in the proceedings. The committee will also be particularly glad to welcome members of affiliated societies. Members of the public will be admitted on presentation of visiting-cards. Members of the society are asked to note that the conference is being held at Carr's Restaurant, and not at Essex Hall as marked on the passes.

Mr. Thomas Stevenson.—Those of our readers interested in the Chrysanthemum will be pleased to learn that Mr. Thomas Stevenson, who was the only English exhibitor of Chrysanthemums at the Paris Autumn Show, which opened on the 3rd inst. and which is reported on another page, scored a great success. His group, which occupied the most prominent place in the show, just facing the chief entrance, was a splendid triumph of artistic and cultural skill. The French amateurs and gardeners were in ecstasies over the group, there being nothing like it in the show. Mr. Stevenson entered in five classes, and was awarded a work of art, three gold medals and a large silver-gilt medal.

South-Eastern Agricultural College.—A meeting of the governors of the South-Eastern Agricultural College, Wye, was held at Caxton Hall on Monday, November 6, Lord Ashcombe presiding. The Principal (Mr. M. J. R. Dunstan) reported that the entry of new students (56), the number attending the college (141) and the number from the contributing counties (70) were the highest yet recorded. It was decided to approach the Board of Agriculture and the Development Commissioners with regard to the foundation of a research institution for fruit-growing, including the practical treatment of plant diseases in the county of Kent, and also to apply for a grant in aid of the proposed extension of the college buildings. The following resolution was proposed by the chairman of the Surrey County Council (Mr. A. W. Chapman) and seconded by the chairman of the Kent County Council (Mr. F. S. W. Cornwallis): "That in view of the discussions that have recently taken place in connection with the management of Wye College, the governors think it desirable to place on record the fact that nothing whatever has occurred to induce them to withdraw the complete confidence they have always reposed in Mr. Dunstan, the Principal of the College, to whose energy and ability the continued progress of the college is largely due."

CORRESPONDENCE.

(*The Editor is not responsible for the opinions expressed by correspondents.*)

Awards to seedling Roses.—It is worth while considering: 1. What good does it do to award a gold medal to a Rose? 2. Is it always awarded to the best Rose? 3. Are Roses unawarded not as good as the gold medal Rose? 4. Does an award help the public in selecting the best sorts, to the exclusion of worthless varieties or those of little value? 5. Is it the best way to ensure perfection and the attainment of progress in the introduction of new sorts? 6. Should the award be given to a Rose which fails in one particular point, *i.e.*, form, colour, fragrance or constitution? 7. Suppose, for example, a man should plant gold medal Roses in his garden to the exclusion of every other; he would have to exclude many lovely sorts. Fancy being without Caroline Testout, Countess of Derby, Dr. Campbell Hall, Duchess of Wellington, Joseph Hill, K. A. Victoria, Lohengrin, Mme. Abel Chatenay, Mrs. H. Bracklebank, Paul Ledé, W. E. Lippiatt and a host of other grand Roses.—WILLIAM KITLEY.

Lilium Alexandræ.—In the course of his highly interesting articles on the Lilies, which appeared in THE GARDEN during 1904, Mr. Mallett raises the question as to whether or not L. Alexandræ is a hybrid between L. Krameri and L. longiflorum, and mentions that he has succeeded in obtaining seedlings from this crossing. May I suggest to Mr. Mallett that it would be of great interest to many of his readers if he would be good enough to let us know the further history of these seedlings, and whether they throw any light on the question of the parentage of L. Alexandræ.—EDWARD W. BOTTLE.

A Rose trial ground.—If it be desirable that all Roses, before getting the highest awards the National Rose Society can make to them, be tested for growth, habit and general fitness for outdoor culture, could not an arrangement be made between the National Rose Society and the Royal Horticultural Society to utilise a portion of the latter society's gardens at Wisley for such purpose? There are varying forms of soil there; but it has always been a matter for surprise, seeing how many rosarians call for stiff soil for Roses, how wonderfully well Roses do on the Wisley sand. Even during the great heat and drought of the past summer, most of the large collections there were quite beautiful. After all, why should not Roses have some such test applied to them? and if a second trial on stiff soil North of London could be given, how very complete would be the test. It is admitted that in the past many much finer Roses than those receiving gold medals have been unhonoured. Such grave errors would not occur if a real outdoor trial test were first applied. —A. D.

Gladiolus tristis in South Africa.—In THE GARDEN, September 2, which arrived here last week, I notice a letter respecting Gladiolus tristis. Your correspondent speaks of it as a native of Natal. It is also a native of Cape Colony and, as far as I can trace, extends over nearly the whole coast-belt of South Africa. It is just now in bloom with us, and there are thousands to be obtained within easy walking distance of Port Elizabeth. In its wild state it seldom has more than two blossoms on a stalk, and even in cultivation with me I have never bloomed it with more than three. Therefore four or five blossoms as your correspondent speaks of, must be the result of better cultivation or more congenial surroundings. The blooms here are certainly slightly spotted on the lower petal, but the spotting is very slight. I am enclosing one blossom, and you may, perhaps, be able to trace the spotting all down the centre of the lower petals. [This was not sent—ED.]. We have another variety of this which blooms in the autumn, and which has a greater diversity in colour. It ranges from almost a brick red to creamy white, and, like the spring-flowering one, it is very widely spread and to be obtained in abundance. It also has the very strong almond-like scent. The local Dutch name is "Avendblom," pronounced Outbloom, meaning evening flower, because it emits perfume only at night.—E. A. RICHARDSON, *Port Elizabeth.*

Autumn Roses.—The season has been such here that on October 25 we were able to cut forty blooms, in form, colour and condition good enough for exhibition, among them being the two Maman Cochets, Souvenir de P. Notting, Lyon Rose,

Yvonne Vacherot, Veluwezoom, Mrs. John Laing, Lady Ursula, Melanie Soupert, Lilla Rautenstrauch, Mildred Grant, Lady Ashtown, Joseph Hill, Mme. Hoste, Jean Ducher, Edmée Metz, K. A. Victoria, La France and Mrs. Sharman Crawford. Lady Ursula, one of the comparatively new Roses, was strikingly good, showing a great improvement in form, especially in the high and pointed centre, as compared with the summer blooms. Many Roses which generally serve me as good autumnals, such as Frau Karl Druschki, La Tosca and Antoine Rivoire, have failed this season. —D., *Southampton.*

A large Gourd.—The long hot summer favoured the development of our Gourds. From the time the fruits first began to swell they went on without any check and with unusual rapidity. Observing them every two or three days, it was quite remarkable to see the distinct advance in size. The largest was the heaviest we have ever grown. It weighed 144lb.; its two largest diameters were 2 feet 6½ inches and 2 feet 6 inches respectively, and the circumference 7 feet 7 inches. Some of its fellows were handsomely netted with a rough, corrugated lacing, its paler colour showing up distinctly on the deep orange, almost red, rind. Several others were over a hundredweight, the rest ranging in weight down to about sixty-five pounds. Fortunately, the summer passed without any violent windstorms to damage the foliage. They were grown on a pergola, their roots being in a shallow trench rather richly prepared, and they were further encouraged every other day with some weak house sewage. They are the large Potiron Rouge d'Etampes, grown from seed supplied by Messrs. Vilmorin of Paris.—G. JEKYLL, *Munstead Wood.*

The United Horticultural Benefit and Provident Society *re* Insurance.—The National Insurance Bill—good or bad as the case may be—is undoubtedly to become law, and every gardener in the United Kingdom between the ages of sixteen and sixty-five who has an income less than £3 per week will have to contribute weekly to some approved society for providing benefits in case of sickness, &c.; the minimum amount and conditions are set out in the Bill. Gardeners as a body enjoy the lowest average death-rate—with the exception of the clergy—in the kingdom, which must be taken as evidence of general good health. There are over five thousand country seats of nobility and gentry tabled in "The Garden Annual," which would mean, on an average of five men in each place, 25,000 gardeners employed in such private gardens alone, to say nothing of those employed in smaller places, public parks, botanic gardens, by landscape gardeners, nurserymen and florists, market-gardeners, &c. To all such the United Horticultural Benefit and Provident Society unquestionably affords the best means of insurance under the Bill. The society is solvent, fully registered and well managed. Mr. W. Collins, 9, Martindale Road, Balham, S.W., is the secretary, from whom information can be obtained. As paragraph I., sub-section II., of Clause 18 of the Bill has been omitted, all fear of exclusion on account of numbers has been removed. The society now stands approved, conforming to all the provisions of the Bill; yet if the pooling of one-half the surplus profits on the working of the Government scheme could be avoided, the whole of the balance, which is sure to be considerable in such a healthy society, could be utilised in any of the various ways the Bill permits for the benefit of its members.—MARK WEBSTER, *Kelsey Park Gardens, Beckenham.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

MORELLO CHERRIES.—The pruning and training of these may be proceeded with whenever the conditions are suitable. The pruning consists chiefly in the judicious thinning of the young wood. Old-established trees may be much improved by the removal of some of the worst of the old branches where there is sufficient young wood to replace them. If a few of such branches are cut out every year, there will be no difficulty in keeping the trees full of fruiting wood. When pruning is finished, the trees should be subjected to a thorough cleansing with an insecticide.

Sweet Cherries.—These require somewhat different treatment to Morellos in the matter of pruning and training. The habit of growth in the case of the Morello admits of training the trees in a similar way to that which is practised with the Peach and Nectarine. The Sweet Cherry, although easily trained on walls, does not adapt itself to this kind of training so readily as the Morello, and, to keep the trees fruitful, the formation of spurs must be encouraged all along the main branches. This is best done by summer pruning or pinching. Therefore little will now require to be done except to shorten back some of the shoots which were stopped in the summer as well as the leading shoots. In cutting back the leading shoots on trees which have not yet reached their limit, it is not advisable to leave too much growth at one time. From 12 inches to 18 inches, more or less, according to the strength of the wood, is ample for one season. Much care is needed when training not to damage the wood or to tie the branches too tightly, as the Sweet Cherry is very subject to canker. Trees in the open should have their branches liberally thinned, so that light and air can pass through freely. Young trees which are inclined to make gross wood should be lifted and root-pruned. Mix plenty of old brick rubble in the soil when replanting and ram it firm.

Apricots.—Like the Sweet Cherry, the pruning of these is done principally in the summer, and all that will be required now is a judicious thinning of the wood on the spurs. Young shoots should be encouraged where there is room to lay them in, as often the finest fruits develop on these growths. The Apricot is very subject to canker, and it is not uncommon to see a great many trees disfigured through the branches succumbing to this disease; therefore, if a quantity of young growth is encouraged, unsightly gaps may easily be filled up.

Plums.—The pruning and training of the Plum is carried out much in the same manner as the Apricot, and the same advice given in regard to the laying in of young growths may be applied here. The leading growths on recently-planted trees must be shortened well back, and it is desirable that the centres of the trees be not overcrowded with growth.

The Fruit-room.—Take advantage of a wet day to look over the fruit. Apparently Apples and Pears are not going to keep as well as one could wish. Do not handle the fruit any more than is necessary. During favourable weather open the top ventilators to sweeten the room.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

THE CONSERVATORY.—Fuchsias that are passing out of flower should be removed to some out-of-the-way place to rest, first trimming the growths slightly back. A Peach-house at rest, or under the greenhouse stage, will suit these during the winter. If placed under stages, they should be laid on their sides, so that they may not get too much moisture from drip. Old plants of Zonal and scented Pelargoniums, if required for potting on next season, should also be rested in a semi-dry state, but they must not be stored under the stages unless these are free from drip. Liliums of the lancifolium type may be successfully grown and flowered for several seasons if they are properly treated. Those that have finished flowering should be allowed to get gradually dry, and when all the foliage has fallen the stems may be cut down to the level of the pots and the plants potted on into larger pots after removing any loose or exhausted soil. If it is not convenient to transfer them to larger pots, all the old soil should be shaken from the bulbs, and these potted up with fresh soil into the size desired. They may then be plunged among leaves in a cold frame for the winter. A good rich compost of fresh loam and some well-decayed manure is necessary if good results are to be obtained. Fresh importations of Liliums are now coming to hand, and these ought also to be potted up as soon as they arrive. The pots should only be three-quarters full, a little sharp sand placed at the base of the bulb, the top of the bulb being just slightly covered.

Cyclamen.—The earliest batch of these is now in full flower,. Successional batches ought to be kept cool and airy, and given an occasional watering with weak liquid manure. Seedlings sown in August last will now be getting established in the small pots, and should be placed on a shelf near the glass and kept growing freely during the winter.

Cinerarias will do well if kept in a house where the frost is just excluded until they begin to push up their flower-spikes. Frequent fumigating will be necessary to prevent attacks of green fly, and a close watch kept for the appearance of the leaf maggot, which soon disfigures these plants. Hand picking in its earliest stages is the best method of suppressing this pest.

Stove Plants.—Poinsettias from cuttings rooted in July are now filling their pots with roots, and should be afforded stimulants to induce the formation of large flower-bracts. They require a warm and moist atmosphere and a position near the glass while in full growth, gradually reducing the moisture in the atmosphere as they show colour. To obtain sturdy plants from 12 inches to 18 inches in height to flower at Christmas, it is necessary to insert the cuttings in a close propagating-frame in small pots about the middle of July. If propagated too early, the plants will grow to an unseemly height before showing colour, while if left till a later date they will be too much dwarfed to produce large heads. A general cleaning among the stove plants should be accomplished as soon as opportunity permits, as with the increased heat in the pipes and a reduction of moisture in the atmosphere thrips and red spider may develop rapidly and cause injury to the delicate foliage.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

ORCHIDS.

NOTES ON ORCHIDS.

VANDA CÆRULEA.

A FEW weeks ago an illustration of a blue Dendrobium appeared in THE GARDEN, and this is a colour which is extremely rare among Orchids. Now I would draw attention to the attractive Vanda cærulea, a popular species from Northern India which produces scapes of large flowers having light blue sepals and petals, with darker tessellations, and a rather small lip of a decided deep blue. Like the flowers of the well-known Odontoglossum crispum, they vary both in size and tint, and every shade of colour will be noticed from almost white to the richest dark blue. Some of these exceptionally fine forms have received varietal names, such as R. Chollet, Bluebeard and the Westonbirt variety.

This beautiful Vanda is now largely cultivated, and frequent importations arrive in this country which may be purchased at moderate sums. When they are first bought, each piece ought to be overhauled, cutting away any dead stem and worthless leaves, when it will be ready to place in a pot of small dimensions, which ought then to be partly filled with broken potsherds. A few more may be added round the base of the stem, when only a thin layer of soil will be necessary. In a month or two new roots will appear, and the plants can be given a shift into a larger receptacle, reducing the drainage by half and filling the remaining space with a mixture of Osmunda fibre, lumpy fibrous peat, and sphagnum moss. A few nodules of charcoal or finely-crushed crocks may be added as the operation proceeds.

At one time the proper treatment of Vanda cærulea was by no means fully understood, it usually being consigned to the warm division with its allies; but now we know that it requires less heat and a more airy structure where the shading is of a thin description. If a small division cannot be set apart for this species, it may be grown with Lælia anceps, Odontoglossum citrosmum and other Mexican Orchids, which delight in plenty of strong light short of the direct rays of the sun. Throughout the winter months the atmosphere must be kept fairly dry and the temperature from 55° to 60° Fahr., while the plants should not be watered to excess; but the grower must remember that they possess no pseudobulbs, and therefore cannot endure long periods of drought.



A RARE PERUVIAN ORCHID; RODRIGUEZIA BATEMANII.

A RARE ORCHID.

(RODRIGUEZIA BATEMANII.)

THIS interesting genus only contains a few species, which are usually known under the name of Burlingtonia. The plant shown in the illustration is the rare and pretty R. Batemanii, which was exhibited by Messrs. Charlesworth of Hayward's Heath on November 8, 1910, as Burlingtonia species. The individual flowers are white, except for the faintest tinge of yellow on the lip, and are slightly larger than those of R. fragrans and R. pubescens. This pleasing group of Orchids thrive best in pans or Teak-wood baskets with wire handles attached, so that they can be suspended from the roof of the intermediate house where the temperature fluctuates between 50° and 60° Fahr. A suitable compost consists of Osmunda fibre and sphagnum moss in equal parts. On account of their habit, the plants must never be allowed to get excessively dry at the roots, while the other extreme is also detrimental to success, neither ought they to be exposed to strong sunlight. SENTINEL.

THE FRUIT GARDEN.

PEACHES FOR OPEN WALLS.

MANY growers are not favoured with a good Peach soil, and those who have a heavy clay soil are badly handicapped; but even then there are means of improving the soil providing a good wall is available and the aspect suitable. In some soils the Peach blisters badly early in the spring, and some varieties are much worse than others in this respect. In such cases I have found that raised borders and rooting material of a lighter nature, with ample lime, will do much good. On the other hand, no matter what means are taken to avert this evil, it is at times difficult to arrest, and I have been obliged to discard certain varieties, also in some cases to grow other kinds of fruit. There is no lack of good late Peaches, and to these my note refers; but I may with advantage point out the great value of fruit-protectors in late or cold districts, as in those gardens much exposed to severe winds the outlay is well repaid. In heavy soils the trees well repay for drainage and a liberal supply of burnt refuse or wood-ashes or fine old mortar rubble, using the rougher portion as drainage. I find it necessary to make the roots firm at planting, and if a mulch can be given in the summer, there is a great saving of labour. A good mulch of short manure encourages the surface roots. In a suitable soil the Peach makes a rapid growth, so in planting give ample room, as it is far better to extend the branches than, as is often done, to severely prune to keep in bounds. The latter practice in the end brings canker and disease, and the foliage is much poorer and the life of the trees shortened. Deep planting is also unwise, and at times even lifting later on fails to remedy the evil. Another small detail often overlooked is to avoid crowding of the growths in their early stages, as this makes it almost impossible to keep the foliage clean and weakens the new wood.



UNRIPENED FRUITS OF MANDEVILLA SUAVEOLENS GATHERED FROM THE OPEN AT LEONARDSLEE.
(*See page* 557.)

THE TIME TO PLANT AND VARIETIES.

I prefer early autumn planting, as by so doing the roots get hold of the soil and go away freely the next spring. It is not necessary to wait for the new trees to lose every leaf before planting.

A word as to varieties to plant. For open wall culture, I do not advise the very late kinds, as we do not always get a tropical summer such as we have just experienced, and very late Peaches in late districts are not a success; the fruits are woolly or tasteless from lack of warmth. This refers to the large, latest fruits. No one can make a mistake by growing such kinds as Late Devonian. This is a grand fruit, and should be a favourite in all gardens. A little earlier fruit, but one not so well known as it deserves to be, is the Zibra, a handsome fruit, hardy and a great bearer, and though it may be out of place to class it as a late Peach on a west wall, it comes in after the midseason varieties. A Peach that has been somewhat overlooked, and a yellow-fleshed variety, Thames Bank, is a fine late Peach; and on a warm wall in a genial soil Thomas Rivers is a splendid late variety. This season it has been very fine. Of older and well-known varieties, that excellent sort, Barrington, a good-flavoured variety, rarely fails; this may be classed as one of the best growers,

being hardy and wonderfully prolific. In the North I have varied the list a little by growing such kinds as Bellegarde, Crimson Galande, Dymond and Stirling Castle. These are all reliable. A new Peach, Duchess of York, promises well as a late variety; this also grows with great freedom, and for open walls is quite an acquisition. G. WYTHES.

FRUIT NOTES.

MOSS AND LICHEN.—It is a matter for some regret that many amateurs cannot be persuaded to perfectly cleanse the trunks and branches of fruit trees of these objectionable growths. They assume that no injury can possibly accrue from their presence; but in this they are in error, and the sooner the folly of such an impression is appreciated, the better for the trees. When the incrustations are serious, it will be necessary to scrape the hard bark, being particularly careful to work in the nooks, crannies and forks, and afterwards thoroughly to wash with a caustic solution. For the latter operation a half-worn brush with firm bristles must be utilised, and the scrubbing must be so forcible that not a vestige of either growth is apparent when the task is done. It is true that there will be successive growth; but when once the removal has been complete it will not be a work of difficulty to maintain the excellent conditions. It may be further satisfaction to the operator to know that in this process it is certain that other, and perhaps more deadly, enemies will be killed.

AMERICAN BLIGHT.—Too frequently it is thought that this pest need only be fought in the summer months, when it makes its presence so apparent in our trees and does an immense amount of injury. But the fact is that when an attack has assumed really serious proportions it is impossible to ensure a complete clearance unless winter work is done, for the enemies ensconce themselves upon the roots and there remain in comfortable seclusion until the succeeding season. To prevent trouble from this direction, badly-attacked trees should have the upper roots bared when the trees are at rest, and all aphides found should be touched with a pointed stick or fine brush which has been dipped in neat petroleum or methylated spirit. This means speedy death, and no harm can come to the roots provided that reasonable care be exercised in making the application.

PLANTING.—Although it is acknowledged that fruit trees can be successfully planted at any time between October and the end of March, there can be no question as to the desirability of finishing the work in November, if it can possibly be managed. The soil still retains a measure of summer warmth, it is usually in excellent working condition, and, further than that, the weather is generally favourable for such important operations. As the tree is planted to yield crops for a generation or more, it is obvious that too much care cannot be devoted to the details of the task. The station should be so wide that it will accommodate a surround of 1 foot of new soil beyond the ends of the roots when they are fully extended, and it should be so deep that the uppermost layer of roots will be about two inches beneath the surface when the work is done. Whether manure is desirable in the soil must be determined upon the merits of each case, but it should always be avoided if possible, as the tendency of it is to push the young trees into too vigorous growth. Sound loam is the best material with which to surround the roots, and it must be packed firmly between the layers. See that the staking is efficient with standard trees and with all forms in exposed situations.

PRUNING.—This is another operation of paramount importance which ought to be accomplished before the end of the year if the necessary time can be spared. With established trees it suffices to thin out weak, useless shoots, those that are badly placed and which cross others, the tree being permitted to assume somewhat of its natural habit of growth. In the case of young trees, the cutting must be directed towards the formation of a good foundation. FRUIT-GROWER.



A FLOWERING SPRAY OF CLEMATIS NUTANS, A LITTLE-KNOWN SPECIES FROM CHINA.

TREES AND SHRUBS.

MANDEVILLA SUAVEOLENS FRUITING OUTSIDE.

THIS lovely greenhouse plant has been most beautiful in the open during the past summer. It commenced to flower early in July, and continued to produce its sweet-scented flowers till the end of September; but this is not the first time by many, as it flowers more or less every year, although not quite so early. The plant in question, from which the long seed-pods were gathered in October, is planted on a border by a south wall, and is about 12 feet in height. The Bean-like pods were 15½ inches long, and there are a good many of these all over the plant. It delights in an open soil, such as good loam of a sandy character with some good leaf-mould, and it must have a well-drained position. This, of course, must be made with rough material, and planting should be done very firmly indeed. Care will be necessary in dealing with the young, fragile shoots as they push forward in the spring, especially the first season after planting. These should be neatly tied to wire. A piece of wire-netting strained up a wall makes a good material to tie to, and if secured by strong staples will last many years. If the sun is very powerful, a slight shade with a twig or branch will be helpful, and every night in dry weather a fine spray from the syringe of tepid water will keep all insects at bay. The only ones likely to cause trouble are red spider and green fly. When plenty of roots have been made, real good waterings are necessary in hot weather, as a position on a south wall becomes very hot. No one with a warm wall need despair of growing this beautiful plant. As the plant is deciduous, in severe weather it can easily be protected by a few branches of evergreen, and the roots by 6 inches of ashes.

Leonardslee. W. A. COOK.

CLEMATIS NUTANS.

THIS is an autumn-flowering Clematis of considerable merit. Like numerous other plants from the same localities, there are two forms of the species in cultivation. The older one is from the Himalayas and is sometimes confused with C. buchaniana; the other is a Chinese form of more recent introduction. Missionaries were the means of introducing the latter plant into France, and Mr. E. H. Wilson collected seeds on one or two of his journeys, including that undertaken for Messrs. Veitch in the year 1903. C. nutans is a vigorous climber. The leaves are pale green and pinnate, consisting of seven to nine leaflets. The flowers are primrose yellow in colour, with a delightful fragrance suggestive of Cowslips.

THE GREENHOUSE.

BULBS FOR BOWLS.

AMATEURS in suburban and country districts who possess frames or heated pits may make a very good use of them by cultivating bulbs for placing in bowls during the early days of the new year. The bulbs should be grown specially for the purpose. Where ordinary pots of bulbs are not suitable, bowls filled with bulbs and Maidenhair or other Ferns will be greatly appreciated. Roman Hyacinths and Tulips are the most suitable bulbs for the purpose. Boxes about 4 inches deep, 14 inches to 18 inches long and 1 foot wide should be used, as it is not necessary to put the bulbs in flower-pots. Some rotted manure must first be laid in the bottom of each box, and then a compost of loam and leaf-soil in equal proportions, with a free admixture of sand put in to within 1 inch of the top.

The bulbs must be put in rather thickly, with a space between them wide enough to allow of the finger being readily inserted. Make them quite firm in the compost, and give a good watering to settle them in the soil. Where sufficient empty boxes are available, some of them should be used to cover the bulb-boxes, sand or ashes being placed on the top of all just deep enough to hide them. Otherwise cover the bulb-boxes with ordinary soil or sand. The bulb-boxes may be placed in the open air until the new growths are about 2 inches long; then the covering material must be removed and the boxes taken to a cool frame, kept partially darkened for a week or so by placing mats on the glass, and then gradually exposed to the full light.

The amount of forcing necessary must depend, to a great extent, upon the stage of growth of the bulbs. The Roman Hyacinths, Duc van Thol and several other varieties of Tulips, fortunately do not require much forcing to bring out the flowers at an early date, and on this account, also, they are among the best kinds of bulbs to grow where artificial heat is strictly limited.

Making up the bowls should be done about a week before they are required for use on the table, in the dwelling-room window, or the glass entrance porch. The shape of the bowls is a matter of taste. Variety is advisable, but very deep ones are not necessary. Moss-fibre or peat should be first placed in the bowl; then some compost similar to that in which the bulbs have been grown. Arrange the carefully-lifted bulbs so that the bowl of plants will appear quite complete when the work is finished. All the Ferns used must be dwarfer than the flowers, so that the latter and their main leaves are well above the fronds, which act as a charming setting to them. White Roman Hyacinths harmonise with any colour, of course. These and scarlet Tulips, or scarlet and white Tulips, look very nice. Some persons prefer white Hyacinths and scarlet and yellow Tulips in the same bowl. Bowls containing distinct, separate colours are very effective. B.

PRIMULAS FORBESII AND MALACOIDES FOR CUTTING.

I DO not know if I am singular or not, but I have generally found on my various travels that the places and the scenery which have most impressed me have been those of which before I saw them I had heard least, and that almost invariably those which were familiar to me from hearsay or from books have been disappointing. I put the vineyards of the Rhine in this last category, and the town of Rouen in the first. Something of the same sort seems to hold good with me in the affairs of the garden. The things that I stumble upon for myself appeal to me, perhaps more than they should do. On the principle of our own being the best, I possibly exaggerate them.

One day I was hard up for something to cut, and having nice batches of Primula malacoides and P. Forbesii in the greenhouse, I gathered a small handful of each, mixed them, added some Maidenhair Fern, and the result was beautiful. After thirteen days quite a third of the spikes in the vase were quite fresh. The stems had grown in water, the upper whorls of bloom had opened, and their paler lavender shades only added to the harmony of the heliotrope mauve lavender combination. The rosy mauve of Forbesii, with its delightful deep yellow or primrose coloured centres, and the softer pinky lavender of the larger and more loosely-built malacoides, mingled with the long-cut paler flowers of both, and garnished with some deep green Maidenhair Fern, struck me as one of the most *chic* little arrangements I had ever seen. I feel I can say this if I confess I was only "the organ-blower," and that my housekeeper "did the rest."

Flowers want particular rooms and positions to look their best, or, as it is generally put from the opposite standpoint, Rooms (with a big "R") must have this or that to go with them. Here, then, is something that is just what is wanted for drawing-rooms and boudoirs, where the *tout ensemble* demands something light and graceful in the way of floral decoration, and where mauve shades harmonise.

These two little Primroses are very easy indeed to grow. Within three or four months from sowing we may have abundance to cut from. They are very free and are continually throwing up new spikes, and with a little care to sow for a succession, like Tennyson's brook they will "go on for ever."

Their wants are few and simple — a cool greenhouse, just ordinary attention in watering and repotting, just ordinary light, good soil, just "cut and come again," and then, as with the Sweet Peas, there will be a continual blooming until, worn out by hard work, the older ones are regretfully but necessarily removed. JOSEPH JACOB.



A NEW MARKET JAPANESE CHRYSANTHEMUM: HESTON BRONZE.

CHRYSANTHEMUM HESTON BRONZE.

THIS very handsome variety gained a first-class certificate at the recent exhibition of the National Chrysanthemum Society when shown by Messrs. Cragg, Harrison and Cragg of Heston, Middlesex. In colour it is light bronze; the flowers are full and of good substance. It is what might be termed a market Japanese variety. It possesses stiff, wiry stems and healthy deep green foliage, and these qualities, in conjunction with flower-heads that travel really well, make it an ideal variety for packing for market. The lasting qualities of the flowers—and the same applies to all Chrysanthemums—are very much prolonged by shortening the stems before placing them in water. It is found that after being packed for a few hours the base of the stem becomes hard and dry, and unless it is shortened, say, by an inch or so, water is not readily assimilated by the flowers. So important is this little duty that some leading florists when despatching Chrysanthemums send with the flowers a little printed slip advising that the flower-stems should be shortened as soon as received.

THE FLOWER GARDEN.

CRINUMS IN THE OPEN GARDEN.

THE genus Crinum comprises several species of highly ornamental and beautiful flowering plants. Most of these require the protection and genial conditions prevailing in the greenhouse, or even the stove, to do them justice. There are, however, a few others to which I would more particularly like to direct attention that may very successfully be cultivated in the open without any large degree of trouble or liability to serious damage in the most severe weather. All the species require an open position fully exposed to the sun, and if sheltered by a wall or building, the flowering propensities of the plants and preservation of the expanded blooms will be thereby enhanced.

Thorough preparation of the site should be carried out, and liberal quantities of new soil, more particularly fibrous loam, roughly broken up, and leaf-soil be added, while manure, if used at all, should be deeply placed, quite out of reach of the roots for a time, and these in turn, owing to their length and peculiar shapes, must be planted fully 6 inches below the surface, to ensure ample moisture in the growing season and security from frost in winter.

The best time for planting is May or June, as the roots then quickly take possession of the new soil and the plants become somewhat acclimatised by the following autumn. Well-established specimens that have been grown on under moderately cool conditions in fairly large pots are preferable to dormant bulbs, for although these withstand water in almost any quantity when in growth, the more free they are from an excess of this after the foliage has disappeared the better they will be. In very cold districts, where safety from frost by improvised methods of protection, such as a covering of ashes, Fern, or very similar material, cannot be assured, the bulbs may be lifted before winter weather sets in and be stored until early spring, when potting and ultimate planting may be carried out as already mentioned. Crinum capense and C. c. alba are both hardy in the general acceptation of the term, for frost of such severity as to damage these would likewise prove fatal to many other subjects so classed. These thrive well in the open, and the pendent habit of the foliage, spreading for several feet around the bases of the plants, makes them very interesting objects through the greater part of the season. The flower-stems appear about midsummer and bear from six to twelve flowers on each, which, however, develop successionally.

C. longiflorum closely resembles the foregoing in many respects, but it is scarcely so immune from low temperatures; hence a warm nook with a backing of some kind is necessary to ensure free flowering and protection in the winter season. The long, tube-shaped flowers of this, which are borne in umbels on upright stems a yard or more in height, render it a very conspicuous object during the greater part of August.

C. Moorei I consider the best of the genus adapted for outside culture. Like the last-named, it requires a favoured position, though not necessarily one facing full south. Here it thrives splendidly along the eastern side of a low span-roofed glass-house which is moderately heated in winter, but not sufficiently so, one would think, to make any considerable difference to plants situated outside. Precautions against frost consist of a covering of Bracken, but in mild winters such as the last no protection of any kind is applied, and the omission has never given cause for regret. The characteristics of this variety in respect to its season of flowering are very erratic, but generally the flower-scapes appear early in August, and others are produced in due succession with more or less regularity until October. Some seasons none appears until the last-named month, but with these the shade of colouring is particularly beautiful. This year blooms opened early in June, the display lasting about six weeks; then followed a rather long interval of flowerlessness, caused probably by the excessive heat and drought. On October 12 several scapes were in evidence, with the flowers fast approaching the opening stage.

C. Powellii closely resembles the above-named, and its white-flowered counterpart is very distinct and beautiful; but here neither seems to blossom so freely, though they grow equally as strong. I may state that this place is very near the sea, the breezes from which tend to moderate excess of cold, besides which it is generally thought that this genus succeeds best in saline-laden air.

JAMES DAY.

Galloway House Gardens, Wigtownshire.



A BED OF DELPHINIUMS, WITH CAROLINE TESTOUT ROSES IN THE FOREGROUND.

A BED OF DELPHINIUMS AND ROSES.

THE association of Delphiniums and pink Roses is one of the happiest possible. The Rose shown in the illustration, Caroline Testout, is, perhaps, the most suitable on account of the bold-growing form of the plant, coupled with its handsome globular flowers. Owing to the great heat, the Delphinium spikes were not so vigorous and long-lived as usual. The bed accommodating them is 14 feet in diameter. I may add that the Roses are on their own roots, and the photograph was taken in the garden of Ken View.

Highgate. C. T.

THE ROSE GARDEN.

ROSA MOYESII.

MANY of the wild Roses make very attractive bushes throughout their flowering period, and again while in fruit. The British species are seen to advantage in hedgerows in many parts of the country, and occasionally good collections of exotic kinds are to be met with in gardens. More often, however, selections of a few of the more ornamental sorts are preferred to fuller collections for garden purposes, and thus the choicer kinds only are grown. The subject of this note has only been in cultivation in this country for a few years; yet so distinct is it from others which were already grown, and also of so decorative a character, that it is likely to be very widely grown in the near future and to find a place in the most exclusive collections. R. Moyesii hails from the mountains of Szechuan in Western China, where it is found at an altitude of between 7,000 feet and 9,000 feet. Mr. E. H. Wilson had the honour of introducing it to this country on behalf of Messrs. Veitch, though specimens of the plant, according to the *Botanical Magazine*, had previously been collected by Mr. A. E. Pratt. It is stated to be from 8 feet to 10 feet high when mature, and to bear some resemblance to R. macrophylla. Its leaves consist of from seven to thirteen leaflets, and its flowers, which are of a peculiarly rich shade of red, attain to 1¾ inches across. The blooms appear in June, and they are succeeded by orange red fruits,

sometimes 2½ inches long, which ripen during late summer. It may be expected to thrive with other Roses under exactly similar conditions, and there would appear to be no doubt as to its hardiness. D.

ROSE IRISH ELEGANCE.

THIS variety was raised or sent out five or six years ago. Since its introduction it has not been more successfully grown than during the past season. Amateurs and others who like to have Roses to cut for decorative purposes of all descriptions should grow this variety, which is most appropriately named. It has many beautiful points, one being the various stages of bud development on the same spray at the same time. A few flowers may be fully open while others are half developed and more are in the bud stage, so readers will fully realise the beauty and effectiveness of the blooms from the following description of their colours. In the bud stage the mixture of bronze, scarlet and orange harmonises so well with the apricot hues of the fully-expanded flowers. It is a single-flowered Hybrid Tea. The plant is a strong grower, and, if properly pruned and trained, forms a wide-spreading bush which resembles a huge bouquet of flowers and foliage. Another good point is its long flowering period. B.

THE CRIMSON CHINA ROSE.

No one who has seen a well-developed specimen of the old Crimson China Rose growing against a wall will ever forget its glorious beauty. I wonder it is not more often grown, but one rarely meets with it, and when one does it is in some old-fashioned village. But this is the Rose we want for giving us brilliant colouring to our moderately high walls. We are apt to be impatient and expect the growth of a Dorothy Perkins all at once. The fact is, the old Crimson China Rose requires time to climb well over a wall. Of course, we may plant the Climbing Cramoisie Supérieure, which is a rapid grower, but not until well established is this Rose at all free in flowering. What I usually advise is to plant this variety and Grüss an Teplitz to cover the top part of a wall quickly, and the old Crimson China to plant in between. I fear this old Rose is often misrepresented by Cramoisie Supérieure, which is not nearly so good a colour; so that when ordering one must ask definitely for the old Crimson China. No one who knows can mistake its growth, for it is of a much more slender nature than Cramoisie Supérieure or Fabvier. When planted against walls, prune very sparingly, if at all, but spread out the growths as much as possible. To improve these Crimson Chinas is work for the amateur hybridiser, and I am sure they would well repay the trouble. P.

THE TOWN GARDEN.

FRAGRANCE.—Of fragrance, whether of leaf or blossom, gardeners—amateur or professional—rarely tire. It is alike precious to the cottager and artisan as to the millionaire, a subtle charm that appeals to all classes, from the highest to the lowest in the land. The wonder is that, seeing garden fragrance is so abundant and so cheap, we make so little use of it, especially in those out-of-the-way spots or corners of the garden where it would occupy but little room, cost little or nothing for upkeep or maintenance, and yet make its presence known in the most unexpected way. We know that in the quiet simplicity of rural life the village folk make much of Rosemary, Lavender and Southernwood, or Lad's Love as it is more frequently called, culling the twigs or branchlets on every occasion when a "bouquet" is required.

IN TOWN GARDENING it would appear that in these beautiful ways so many of us just miss the mark—that we long too much for garish things, forgetting or ignoring the simpler beauty that would cost us so little and yield us so much in return. The absence, too, of so much of this leaf fragrance from our gardens is all the more remarkable when we remember that it need not of necessity oust any single plant of our choice; rather should such things appear as garniture to others—a foil, it may be, or a background, an edging or a fringe—an addition to something already existing, which would render particular spots in the garden more tenable and inviting. Visiting a gentleman amateur quite recently, I was asked what could be planted near a certain large bay window which faced the lawn. "We sit out here in the summer-time and get very tired of looking at the rather acute angles of the bay." "Why not plant a Lavender fringe there, or train a bush of Rosemary to the wall?" I remarked, and the suggestion had scarcely been uttered before he decided to act upon it. And it is in this and similar ways that the fragrance one has in mind might be made to play its part in many a garden from which it is now absent. Over and over again a bush of Lavender or of Rosemary might be snugly ensconced near the entrance door, or in any comparatively dry spot where other plants would not thrive, and, brushed by every passer-by, surrender a sweetness of which our gardens have not too rich a store at any time.

HYACINTHS FOR THE CHRISTMAS SEASON.—The Roman Hyacinth, the one I have now in mind, has probably no equal among fragrant flowers at the festive season named, and certainly there is no flower more chaste or welcome during winter-time. Even though the variety was not endowed with the precious attribute of fragrance, it would be popular with all classes by reason of its purity and elegant grace. It is largely welcomed by amateur gardeners, so many of whom endeavour to obtain a few flowering examples each year.

AN ESSENTIAL IN THE CASE, however, is that the bulbs were potted some weeks ago, and this item being in order, the pots, now freely charged with roots, may be introduced into slight warmth. In the case of the professionally-grown plant, it will be noted that a considerable length of stem and good leafage have been obtained, whereas not infrequently the amateur's production is characterised by the flowering spike appearing low down among the leaves and also by being very short-stemmed. This shortness of stem is a great defect, and is directly due to a wrong method of treatment.

THE CORRECT WAY TO TREAT THESE HYACINTHS, when they are removed to the greenhouse from the plunging material in the open, is to at once transfer the pots to a position of darkness, and where the plants also will get the benefit of a little bottom-heat. The amateur, not knowing the "tricks of the trade," introduces his plants to the greenhouse and there exposes them to the fullest light. The professional gardener has bottom-heat, beds, or frames available for such early forcing, and the nearest substitute most amateurs will have at their command will be the hot-water pipes below the greenhouse stage. By placing a rather deep box thereon, however, inserting a little Cocoanut fibre, and covering with a lid and a sack to retain the heat, those genial conditions of moisture and warmth will result that mean so much to the plants at the critical period named. S. N. N.



THE NEW WINTER-FLOWERING BEGONIA EXQUISITE.
(*See page* 562.)

GARDENING FOR BEGINNERS.

PLANTING EVERGREEN HEDGES.

As a subject for hedge-planting the English Yew is deservedly popular. This plant is a great favourite because it will grow in almost any soil and in any situation. If special care is taken in the preparation of the soil in which it is planted and to incorporate in poor soil at the time of digging a fair quantity of decayed manure, excellent results will be obtained. When selecting plants for hedges, choose those that are bushy right from the bottom; otherwise a thin bottom will be the result. Weak branches at or near the base often result in the leaves falling, and new growths are seldom evolved in such conditions. Where the hedge is not required to be more than about six feet in height, keep the sides upright and the top flat. Higher hedges should be cut in the shape of a wedge.

Laurels afford splendid shelter from the wind, and will succeed well in almost any position. This subject makes a capital hedge or bank in a comparatively short time. Plant two bushy plants to a yard, and if the variety rotundifolium be used so much the better, as its growth is short-jointed, and a more dense hedge is developed in consequence.

The American Arbor-vitæ (Thuja occidentalis) is a capital subject where dense growth is desired. This is a plant that develops its growth quickly, and is one of the best subjects for divisions or screens in the garden. The colour is deep green in the summer, and in winter it changes to a pleasing russet brown. The writer knows of beautiful living screens, some eight feet or more in height, of this subject where the diameter is less than two feet. Fifteen inches between these plants at the time of planting should be observed if a thick living fence is required. Holly hedges are always extremely popular and much valued by those who possess them in their gardens. The plants are of slow growth, it must be admitted, but those who care to wait are invariably well repaid for their patience. Plants 18 inches in height are the most suitable for hedges, as they feel the check of lifting much less than larger plants. A good hedge may be made by planting 1 foot apart.



1.—THE BEGINNING OF A YEW HEDGE.



2.—A NEWLY-PLANTED HEDGE MAKING AN EFFECTIVE SCREEN.

Cupressus lawsoniana is excellent for screens or for a dense green hedge, and this subject succeeds remarkably well in sandy soil. Ample room must be allowed for the plants to develop satisfactorily, and for this reason they must not be planted thickly. Eighteen inches apart is a good distance to observe, this sufficing to make a thick hedge that will keep in good condition for a long time. This Cupressus is seen to great advantage when the hedge is pruned with a flat top and upright sides.

The quickest-growing of the evergreen hedges is that composed of the Evergreen Privet (Ligustrum ovalifolium). The Golden Privet is also a vigorous-growing plant, and is now planted most extensively in suburban gardens. Unless the plants are extra large and bushy, they should be planted 1 foot asunder. It is not a very substantial hedge, but on account of its quick development this subject has a special value. Few subjects do well planted in close proximity to this plant, its vigorous root action evidently denuding the soil of so much plant food.

Not the least interesting hedge plant is the well-known Laurustinus. It is not used so often as one would expect it to be, possibly because when closely clipped it loses so much of its value. If given ample freedom, its deep green leaves and showy sprays of blossoms in spring and autumn make it a subject that may be recommended when a suitable position can be given to it.

Hedges of Holly and Berberis, using one Berberis to two Hollies, and Holly and Thorns, using one of the former to six of the latter, are very excellent. To make a good hedge it is of the highest importance to prepare the site thoroughly. All too frequently this work is done in a slipshod manner, and then the results are unsatisfactory. The ground should be thoroughly trenched. This will provide a free root-run, and at the same time ensure the passing away of surplus water, which in the case of heavy soils is a matter of considerable importance. The beginner should remember that these plants are to remain in the same quarters probably for many years. Planting should be done as speedily as possible. It is a good plan with all newly-planted shrubs to mulch the surface soil round about their base with a few inches of partially-decayed horse-manure, as this mulching conserves the moisture in the soil and preserves the roots against damage from severe frosts. During hot and trying days in the succeeding spring copious applications of water should be given to recently-planted hedges. Fig. 1 and Fig. 2 represent the planting of a Yew hedge. Fig. 1 portrays an individual specimen just planted and another specimen in course of being planted. Fig. 2 depicts a recently-planted Yew hedge, from which it will be noticed how excellent are living screens when of an evergreen character.

D. B. CRANE.

MAIDENHAIR FERNS IN WINTER.

FROM November to February very few fronds grow on the plants. Some of the old ones, however, become seared or rusty in appearance, and because of their unhealthy look an inexperienced cultivator may pull them up forcibly. Although such fronds may and should be removed, it is a great mistake to pull them; they should be carefully cut off about half an inch above the soil or cluster of crowns. If pulled, nearly every old frond brings with it one or more crowns of young fronds, which would grow early in the spring. During the winter-time less water is required, but on no account must the ball of soil be allowed to get dry, else the plant will die. Just as the soil is drying a little, a thorough soaking of water must be given. Sometimes cultivators

are much disappointed in spring when new fronds do not grow freely. Woodlice are not only fond of the young fronds and eat them freely, but also the crowns of the dormant fronds. Very often, indeed, these pests are doing much mischief in the winter when least suspected. If any are found, they must be trapped and destroyed. B.

PLANTS FOR DRY POSITIONS.

IF summers such as that through which we have passed this year were to become general, it would lead to many alterations in the arrangement of our gardens and in the plants selected for the decoration thereof. Even in establishments where a good supply of water was available, many plants felt the tropical heat very much; but in places where water was scarce, the trouble was, of course, greatly intensified. Under these last conditions the subjects that came to the front are undoubtedly entitled to be considered as suitable for dry positions, and the list of them has, generally speaking, proved not to be such a limited one as might have been expected.

Of course, a great deal depends upon the manner in which the different subjects are planted, as in deeply-dug ground that is kept frequently stirred with the hoe, or where mulching is carried out, the plants do not suffer so much as in hard, shallow soils. This applies particularly to perennials; but even in the case of these annual replanting cannot always be done, and the plants are then allowed to establish themselves in clumps or masses. Even under these conditions the yellow-flowered Composites, which form such a feature of our gardens in late summer and autumn, have borne themselves bravely. The subjects referred to include the different kinds of Helianthus, Rudbeckias and others of this class. The Heleniums, I think, deserve more than a passing notice, as not only have they done well this season, but some of them supply a welcome change in colour from the clear yellows of their associates. I am particularly struck with Helenium Riverton Gem, whose bright terra-cotta red flowers are very distinct in colour, and borne in the greatest profusion.

The Michaelmas Daisies, after the cuckoo-spit plague in the early part of the season was overcome, did well, and carried a good deal of their foliage unscathed. A notable feature was the early period at which many of them flowered, some individuals being nearly a month earlier than last year. The blossoms were, however, as might be expected, somewhat small. Besides these the following have borne the drought particularly well: Alstrœmeria aurantiaca, whose creeping rhizomes penetrate deeply into the soil; Anchusa italica Dropmore variety and Anchusa Opal, both of which have done much better than I anticipated, probably owing to the deep descending nature of their fleshy roots; Asclepias tuberosa, whose orange-coloured flowers are very telling; Centranthus (Valerian) of sorts; Erigeron speciosum; Eryngium (Sea Holly), the metallic blue of some kinds being this season unusually pronounced; Gaillardias, of which we have now many beautiful varieties; Galega officinalis, whose long, penetrating roots enable it to withstand drought; Geums; Hollyhocks, which have done better than might have been expected; Iberis sempervirens; Lupines, whose spikes of old flowers should be cut away directly they are past their best; Œnotheras of sorts; the double-flowered Soapwort; Sidalcea candida; Solidago (Golden Rod) of sorts; Statice latifolia, and Tradescantia virginica. The beautiful varieties of Phlox, which, as a rule, form such a charming feature of our gardens, have in many cases suffered terribly.

Many annuals have done well, though, of course, their season of blooming was curtailed by reason of the weather conditions that prevailed. Among those most affected in this way were the Clarkias, which flowered beautifully, but the blossoms were so much affected by the heat that the stems were quickly bare. The Portulacas and Mesembryanthemum tricolor were unusually effective, and of the others the following proved the most satisfactory: Alonsoa Warscewiczii, with orange scarlet flowers; Brachycome iberidifolia (Swan River Daisy); Calendula (Marigold), among the least exacting of all annuals; Dimorphotheca aurantiaca, which has proved itself to be essentially a sun-lover; Eschscholtzias, beautiful both in foliage and in flower; Godetias, all of which bloomed for a long time; Lavateras; Linum grandiflorum, remarkable for its brightly-coloured blossoms; Nasturtiums, both dwarf and climbing; Nicotiana affinis, the delicious fragrance of whose pure white blossoms is in the evening admired by all; Scabious, of which we have now some charming varieties; and the little free-flowering Tagetes.

Many of the bedding plants, even when watered, have been quite unable to give of their best. This applies to Zonal Pelargoniums in general, the Ivy-leaved varieties being perhaps the more satisfactory, though Paul Crampel still asserts itself as one of the most reliable. Even where the plants did not die off, the flowers of the bedding Violas opened long before they were sufficiently grown, so that the blooms were poor. Fuchsias, too, in many cases were a comparative failure. On the other hand, Petunias came out of the ordeal well, and Zinnias are also in good condition. The bright sunshine served to even intensify the usually brilliant colours of Celosia pyramidalis, and Asclepias curassavica, with heads of orange-coloured flowers, surpassed itself. Antirrhinums when watered have been, as a rule, good. H. P.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

CALANTHE COOKSONIÆ.—A very large white Calanthe, said to be the result of a cross between C. Harrisii and C. vestita oculata gigantea. A plant of C. Harrisii was shown for comparison, and the new-comer was unquestionably far and away superior in all respects. Its flowers are pure and spotless white, without any suspicion of the pink tint as seen in C. Harrisii. The individual flowers were over two inches in depth and the lip broad in comparison. Shown by Mrs. N. C. Cookson, Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman).

Cattleya Ashtonii alba.—A very fine albino Cattleya having for its parents C. harrisoniana and C. Warscewiczii. Shown by Messrs. Sander and Sons, St. Albans. The flowers are of exquisite form, and the lip is particularly well expanded.

AWARDS OF MERIT.

Cypripedium Sibyl superbum.—A very striking variety, obtained by crossing C. Francisiæ and C. fairrieanum. The latter parent is shown in the drooping petals and the little tufts of dark hairs peculiar to most, if not all, of the fairrieanum hybrids. The petals are densely spotted wit dark purple. The dorsal is very pale rose, stripe green.

Cattleya Venus lutescens.—A fine bold variet somewhat resembling the well-known mothe parent Iris. The perianth is pale yellow, the li a beautiful deep rose colour. Parentage: Iris dowiana aurea. Shown by Messrs. J. and A. A McBean, Cooksbridge.

Chrysanthemum Mrs. Andrew Walker.—A some what larger flower of the decorative Foxhunte type, but having reddish mahogany flower-heads.

Chrysanthemum Golden King (Japanese Incurved —Those who can recall W. H. Lincoln Improved raised by the late Robert Owen of Maidenhea and foisted on to the public under the name o William Slogrove some fifteen years or so ago will get a good idea of the above, which is virtuall a narrow-petalled form of it. The colour is a ric butter yellow, the flower-head of good proportion and well finished. These two were exhibited b Messrs. William Wells and Co., Limited, Merstham

Chrysanthemum Golden Cap.—This is one of th rich yellow sports from Caprice du Printemps, a old variety which during recent years has given at least eight good and useful sports. The above we believe is also referred to as Yellow Cap, and has all the good decorative qualities of the original Exhibited by Messrs. James Veitch and Sons Limited, Chelsea, and Messrs. W. Wells and Co. Merstham.

Chrysanthemum Snowflake (Single).—A pure white of large size when disbudded as shown No naturally-grown sprays were seen. From Mr. P. Ladds, Swanley.

Chrysanthemum Percy Arnold (Single).—A showy and good flower of pinkish cerise tone, from which the objectionable blue and magenta have been deleted. The white base only renders a good variety more conspicuous. It should prove excellent in decoration. From W. G. Ridgen, Esq., Englefield Green, Egham (gardener, Mr. J. Lingfield).

Begonia Acquisition.—This is of salmon pink colour and very charming.

Begonia Her Majesty.—A good orange yellow of large size and great freedom.

Begonia Exquisite.—A beautiful variety of rose pink colour. The flowers are large and produced with great freedom. This set of three new winter-flowering Begonias were exhibited by Messrs. James Veitch and Sons, Chelsea, having been raised by crossing a yellow-flowered tuberous variety with B. socotrana. All the varieties may be regarded as acquisitions, and are endowed with vigour and remarkable freedom of flowering. For an illustration of Begonia Exquisite see page 560.

Carnation Baroness de Brienen.—A fine new perpetual-flowering variety of large size and fulness and with much-fringed petals. It is delicately perfumed, and with a strong, vigorous stem. A vase of the handsome flowers was shown by Messrs Stuart Low and Co., Enfield.

The foregoing plants were exhibited before the Royal Horticultural Society on November 7, when the awards were made.

BOOKS.

The Herb Garden.*—A thoroughly delightful book is this recent addition to our shelves of garden knowledge and garden lore, so full is it

* "The Herb Garden," by Frances A. Bardswell. London: A. and C. Black, 1911. Price 7s. 6d. net.

of both these aspects of horticultural information, and all so pleasantly imparted by one who is a keen enthusiast and a fine practical gardener. It is intended as a helpful guide to the many who lack the needful knowledge, but who wish to establish a modest garden or plot of herbs for kitchen use and their own delight, and shows how such a garden may be made beautiful as well as useful and interesting. Many a mistress of an English household would find a small herb garden not only a charming possession, but an incitement to study the better uses of the sweet herbs in kitchen practice, a matter which is greatly neglected. "Our great-grandmothers knew all about them and appreciated them so much that they would amuse themselves on summer evenings by gathering and mixing just the right blends to flavour certain dishes." When houses are newly built and gardens planned, there should, if possible, always be some sunny corner, not far from the kitchen door, planted with the most useful herbs, so that the cook can have them fresh at the moment needed. The book is well illustrated, chiefly with full-page portraits of herbs, carefully drawn, and as well coloured as the present state of three-colour printing (always weak in the blues and purples) will admit. This weakness is shown in the otherwise excellent drawing of Sage at page 99.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

THE GREENHOUSE.

Auriculas (*M. R.*).—Auriculas are well-known and popular members of the extensive Primrose family. The more robust forms are quite hardy, and form an attractive feature out of doors in the early spring. The choicer kinds are grown under glass, in a structure from which frost is just excluded in severe weather. You ask if they are any good for winter in a cold house. It is an ideal place for them at that season, but if you mean by "any good" whether they flower then, we can say that they do not bloom until the spring. This also answers your query as to when they bloom. Provided the flowers are shaded, they remain fresh and bright for a considerable time, while more or less of a succession of bloom is kept up. The blossoms have a pleasing but by no means powerful scent. Seed may be sown in the greenhouse in early spring, and the young plants so obtained will bloom the following year.

Orchids (*H. L.*).—Of the Orchids concerning which you enquire, No. 1, Masdevallia harryana, bears single flowers on the top of a slender stem from 15 inches to 20 inches in height. There are several forms varying somewhat in colour, but, as a rule, they are of some shade of rosy purple. This Masdevallia flowers in the spring. It is of an evergreen nature, and does not produce pseudo-bulbs of any kind, so that it needs to be regularly watered throughout the year. Of course, more is required in summer than in winter. 2. Chysis bractescens.—This makes its growth during the summer, and in autumn goes gradually to rest. At that time the plants need plenty of air and full exposure to sunshine. During winter little water will be needed. In early spring the new growths appear from the base of the old pseudo-bulbs. 3. Thunia marshalliana.—Makes Bamboo-like shoots, from the upper part of which the drooping clusters of white blossoms, with a yellow fringed lip, are produced late in the spring and early summer. Should be kept dry in winter, and in early spring be shaken clear of the old soil and repotted in a mixture of loam, peat, sphagnum moss, sand and dry cow-manure. 4. Phaius grandifolius.—A terrestrial Orchid that pushes up a stout, erect spike to the height of quite a yard. In colour the flowers are white and reddish brown. It is a free-growing plant, and does best in a mixture of fibrous loam and leaf-mould, with a little sphagnum moss and sand. Being evergreen, it must be watered throughout the year. It is apt to get crowded and produce weak shoots, in which case it should be divided in spring. 5. Cypripedium lawrenceanum.—Bears a large single Lady Slipper-like flower on an erect stem 15 inches to 20 inches high. The colour of the flower is white, veined with purple. It is a summer-flowering kind. Should be grown in the warmest part of the structure and be watered throughout the year. 6. Dendrobium nobile.—This should be kept nearly dry, with full exposure to the sun till February, when more water may be given. With this and the increased warmth the flowers are produced from the joints of the pseudo-bulbs. They are, as a rule, rose pink and white, with a deeply-blotched lip, but individuals vary greatly in colour. 7. Odontoglossum crispum.—Essentially a cool-house Orchid, and one of the most beautiful of all. Must not be dried off at any time. Bears white, wax-like flowers on gracefully arching spikes. Flowers at different seasons, but more especially in spring and early summer. 8. Cattleya Harrisoniæ.—The large lilac rose coloured blossoms are borne in few-flowered clusters from the apex of the leafy pseudo-bulb, usually during the early autumn months. After flowering it should be kept somewhat dry, and in spring encouraged to make new growth to flower later in the season.

MISCELLANEOUS.

Destruction of woodlice (*A. C.*).—A mixture of Paris green—a preparation of arsenic—with Barley-meal, slightly damped, is very effectual in poisoning the pests.

Sowing pips of Crab Apples (*Inquirer*).—Pips of Crab Apples may be sown at once, or, if that is not possible, remove the pips from the flesh and store them in sand in a cool shed for the winter. The ground must be dug over and raked moderately fine. Sow the pips thinly and cover with a light layer of soil.

Sweet Williams (*H. J. F.*).—The Sweet Williams are attacked by the fungus Puccinea Arenariæ. This fungus is also common on such weeds as Chickweed, and so is likely to spread from these to the Sweet William. Diseased plants rarely flower well, so that it is best to destroy them by fire, and the remainder may be sprayed with sulphide of potassium (1oz. to three gallons of water), or with Bordeaux mixture.

Road sweepings for lawns (*Tar Mac*).—There does not appear to be any reason why sweepings from a tar macadam road should not be used for dressing a lawn or for putting on a grass field, especially if the manure has been turned a time or two. Such a dressing is likely to benefit land to which it is applied. The worst point about applying road scrapings to lawns is that a great many pieces of stone and rubbish of other kinds are carried on to the lawn, and if the surface is not well brushed and rolled before being mown, pieces of stone or iron are liable to seriously injure a machine. An ordinary horse-shoe nail has been known to do a couple of pounds' worth of damage to a horse mowing-machine.

To clear ground of Bearbind (*T. H. F.*).—You cannot do better than dig the ground over with a fork, and pick out the underground stems of the Bearbind. A spade is apt to cut the stems through and make them more difficult to get out than when the work is done with a fork. Before you plant the ground, fork it over a second time and pick out what stems remain. Even then some will appear next year. As soon as the weed is seen above the ground, either pull it up or hoe it off, and keep doing so. It is one of the worst possible weeds to eradicate, and there is nothing that you can apply to kill it without poisoning the ground for some time to come. An application of salt would have little or no effect. neither would sulphate of iron be likely to kill the weed outright. Weed-killer would, but the ground would need to be thoroughly soaked with it, and would not be suitable for growing crops for a long time.

Names of plants.—*Amateur, Carlisle.*—Melilotus indica (a casual ballast-heap weed).——*Reader.*—*a*, Polemonium seedling; *b*, Silene pendula (?); *c*, Foeniculum vulgare (Fennel).——*M. C. L.*—Aster Novi-Belgii Robert Parker.——*Heathen.*—Ginkgo biloba (the Maidenhair Tree).——*J. H., Clevedon.*—Sparmannia africana.

Names of fruit.—*H. B. P.*—The Grapes are excellent for so far North, and we believe the variety is the Claret-leaved Vine.——*L. T. T., Brighton.*—1, nearly rotten, Pitmaston Duchess we believe; 2, Durondeau; 3, Brandy Apple; 4, Hambledon deux Ans.——*S. K. N.*—1, Beurré Hardy; 2, Marie Louise d'Uccle; 3, Beurré Bachelier; 4, Glou Morceau; 5, Marie Louise; 6, Urbaniste; 7, Belle Julie; 8, Maréchal de la Cour; 9, Josephine de Malines; 10, Baronne de Mello; 11 and 12, rotten; 13, Winter Nelis; 14, King of the Pippins; 15, Claygate Pearmain.——*H. A. S.*—Fearn's Pippin.

SOCIETIES.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THE annual autumn fixture of the above association was held in the Corn Exchange on November 8 and 9, in charming weather, which brought out the beauties of the exhibits to the full. The large hall was well filled, in which the non-competitive section materially assisted. As usual, the centre of attraction was the challenge vase class for thirty-six blooms of Japanese and incurved Chrysanthemums in equal numbers. There were five competitors, the position of honour being awarded to Mr. C. Goves, gardener to Sir Gilbert Greenall, Walton Hall, Warrington, who set up a very strong stand, the finest flowers being Embleme Poitevine, Clara Wells and Buttercup in incurved, and Hon. Mrs. Lopes, Mrs. A. Bott, Frances Jolliffe and Mrs. A. T. Miller in Japanese; second, Mr. R. Nisbet, gardener to Sir W. Bass, Bart., Burton-on-Trent, who staged a fine even stand which contained the two premier blooms in the show—Mrs. W. B. Marsham (Japanese) and Godfrey's Eclipse (incurved). Mr. G. Haigh, gardener to Sir W. H. Tate, Bart., Woolton, was third; and Mr. H. Osborne, gardener to R. R. Heap, Esq., West Derby, secured the remaining award.

Eighteen incurved and twelve incurved: The first prizemen were Mr. J. George, gardener to T. Henshaw, Esq., and Mr. J. Clarke, gardener to Mrs. Clark. For similar numbers of Japanese, the first awards went to Mr. C. Goves and Mr. J. Copple, gardener to H. Belk, Esq. For six vases and three vases of singles, Mr. L. Thomson fully held his own in each class. Six vases, Japanese: Mr. P. Jakeman, gardener to Sir W. B. Forwood, Bart., Broomborough, led the way. Chrysanthemum plants: These, as usual, were well done, Mr. T. Hitchman, gardener to A. Earle, Esq., Childwall, winning for three large-flowered trained, one large-flowered trained, three large-flowered staked and one large-flowered staked, all in good form. Mr. F. Atkin, gardener to T. W. Wright, Esq., was successful for three singles trained, one Pompon trained, and for a group of single Chrysanthemums.

FRUIT CLASSES.

Six dishes: First, Mr. R. Jones, gardener to Mr. J. Ampblett, in which his Alicante and Muscat of Alexandria Grapes were of high merit. Four bunches of Grapes: Mr. Elsworthy scored with good bunches. Two black Alicante: Mr. J. Barker, gardener to J. W. Raynes, Esq. Two any other black: Mrs. Kendall, with Barbarossa. Two Muscat flavour: Mr. T. Barclay, gardener to Mrs. S. Cook, with well-coloured Muscat of Alexandria; and for any other white, Mr. T. Elsworthy, with Golden Queen. Apples and Pears were well staged. Gold medals were awarded to Mr. John Lee for a large and attractive display of Apples; Messrs. Mansell and Hatcher for an interesting table of Orchids; and Mr. N. Davis for cut Chrysanthemums. Silver medals.—Messrs. Ker for Palms, Begonias and Cyclamen; the Liverpool Orchid Company for Orchids; Messrs. W. Wells and Co. for cut Chrysanthemums; and Messrs. Fishlock Brothers for cut flowers. Awards of merit.—Messrs. T. Davies for Heaths; Mr. H. Middlehurst for Roman Hyacinths and Potatoes; and Mr. W. Rowlands for Bouvardias, Begonias, &c.

BOURNEMOUTH GARDENERS' ASSOCIATION

MR. E. HARRIS of Osborn House, Bournemouth, gave a very interesting lecture on Tuesday, November 7, before the members of this association, his subject being "Will the French Intensive Culture System Become Popular in England?" Mr. Harris dealt with the matter in a very interesting way and from the first took a negative view. He referred to the varying tastes of people of different countries, and said the French had become accustomed to this kind of culture, and father had been followed by son for very many years in the work. Moreover, he said, in France there was a grand supply of straw, and consequently plenty of material available for making up hot-beds. In that country, too, coal was not plentiful, whereas in Great Britain it was, and as straw here was scarce and dear, we used hot-water apparatus and went in for the cultivation of Grapes and more costly kinds of garden produce. A very animated discussion followed, in which the members took part freely, and the general feeling was that in this country we should never take up the French system on an extensive scale for market purposes, but as supplementary to our usual modern methods of forcing, chiefly in private gardens, and this had been our practice for generations past. Mr. Charles Pearce, gardener to Mrs. Ormond, exhibited single and decorative Chrysanthemums, and also some good blooms of Japanese varieties, Mrs. A. T. Miller being very fine. Mr. C. Nippard, gardener to J. J. Norton, Esq., showed some beautiful dessert Apples and a very fine specimen of Begonia Turnford Hall. The names of the Apples were Christmas Pearmain, Cox's Orange Pippin and Allington Pippin, all well coloured. Hearty votes of thanks were accorded the lecturer and Mr. Cox, the chairman.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Scottish Horticultural Association was held in their hall, 5, St. Andrew Square, Edinburgh, on the evening of November 8. There was a good attendance, presided over by Mr. W. H. Massie, president of the association. The exhibits of Chrysanthemums were very good, and included a variety sent by Messrs. Dobbie and Co., Craigentinny Nurseries, Edinburgh: Mr. W. Williamson, Logie Green Nursery; Mr. Bruce, Davidson's Mains, and others. Some of these were highly meritorious, and a certificate and commendations were awarded to exhibitors. After the usual formal business, it was announced that the votes recorded for the

best twelve early Chrysanthemums at the competition arranged in connection with the Chrysanthemum Conference in October had resulted in the following being placed first: Goacher's Crimson, White Maid, Lillie, Polly, Nina Blick, Abercorn Beauty, Lesley, Elstob Yellow, Hector, Carrie, Diana and Horace Martin. The paper for the evening was given by Mr. W. Roadley, Comely Bank Nurseries, and the subject chosen was that of the "Propagation of Plants." After treating fully with the theory of the subject in a manner which evinced a thorough knowledge of the question, Mr. Roadley dealt very fully with the various methods employed in dealing with the different plants. Full technical and valuable details were given on propagation by grafting, budding, root-cuttings, layers, &c. The paper was followed with close attention, and was received with much acceptation, Mr. Roadley being heartily thanked.

CHRYSANTHEMUM CONGRESS AT BIARRITZ.

THE sixteenth annual congress of the French Chrysanthemum Society was held at Biarritz on October 26 to 29. M. Viger presided, being supported by the representatives of the various societies that took part in the gathering, viz., Messrs. Rivoire (secretary), Rodrigues, Chantrier, Rozain, Dubreuil and Harman Payne. After welcoming the members present, M. Viger called upon M. Blot for his paper on the proposed publication of a pocket edition of the "Repertoire des Couleurs." The author urged the need for such an edition as being of greater utility than the present one. He also advocated a change in the colour classification, which, after some discussion, was agreed to. The second paper was read by M. Decault on "The Time for Taking the Bud." Dr. Chifflot read an interesting paper on "Insect Pests and Diseases." In the discussion that ensued, reference was made to the large number of plants that had failed to produce bloom-buds. The heat and dryness of the summer were considered to be mainly the cause. Dr. Chifflot read several communications from growers on the same subject. Mr. Harman Payne briefly explained the American method of growing Chrysanthemums in benches and under glass the whole year through. He thought the practice might usefully be adopted by French growers in the South. Other subjects treated of were manures, &c., and in conclusion it was resolved that the next congress be held at Nantes. The meeting awarded the usual medals to those contributing the most interesting papers. The gathering was characterised by great hospitality to the visitors. M. Rodrigues, the president of the show, deserves their best thanks. The chief items on the programme were: First day, lunch to the jury, followed by a reception in the afternoon; second day, banquet at the Grand Hotel in the evening; third day, excursion to San Sebastian and Fuentarrabia in Spain, lunch at Hendaye given to the visitors by M. Martinet at the Hotel Eskualduna; fourth day, prize distribution.

BIRMINGHAM AND MIDLAND COUNTIES' CHRYSANTHEMUM SHOW.

THE fifty-first annual exhibition of the Birmingham and Midland Counties' Chrysanthemum, Fruit and Vegetable Society was held in the Bingley Hall on November 7. The weather, although overcast in the early morning, was fine generally, with a slight shower during the afternoon. A good number of visitors were in attendance. The general effect presented was very pleasing, the large groups of Chrysanthemums arranged for effect with foliage plants towering to a height of nearly 20 feet. Fruit was a great feature, the perfect finish and colour presented both in the competitive classes and in the large trade displays being much admired. Vegetables were well in evidence, and both the collections and exhibits of individual varieties were in excellent condition.

OPEN CLASSES.

Plants.—In the first five classes of Chrysanthemum plants there was only one exhibitor in each, J. Arthur Kenrick, Esq. (gardener, Mr. A. Cryer), Berrow Court, Edgbaston, who staged some very good specimens, notably Mrs. J. Haddaway, which made a most effective trained plant with a large number of flowers. The first prize was awarded in each class.

For three single Chrysanthemum plants, distinct, the first prize was again secured by J. Arthur Kenrick, Esq., with some good specimens of Robert Milner, Mary Richardson and Robert Thorp; T. W. Piggott, Esq. (gardener, Mr. R. Bullock), Park Hill, Moseley, coming second.

For a group of Chrysanthemums, cut flowers included, arranged in a space 16 feet wide and 10 feet deep, quality of bloom, variety and general effect to be considered, with foliage plants, J. Arthur Kenrick, Esq., was a good first, staging a beautifully-arranged group, containing some well-finished blooms of large Japanese, gracefully interspersed with single varieties and foliage plants; Hume C. Pinsent, Esq. (gardener, Mr. G. Corbett), Harborne, coming second.

In a similar class for plants in bloom only, arranged on a smaller space, as grown, with Ferns and other foliage plants, T. W. Piggott, Esq., obtained the premier award, and was followed closely by H. Green, Esq. (gardener, Mr. L. Fewkes), Gravelly Hill.

For a group of decorative Chrysanthemums, arranged on a similar space, thinning allowed, but disbudding to single flowers not admissible, Mr. C. H. Herbert, Acocks Green, secured first with some nice clean and well-finished plants; J. Arthur Kenrick, Esq., coming second.

Cut Blooms.—Mr. W. Iggulden, Frome, obtained the leading position for six vases containing eighteen distinct varieties, with blooms of good colour and freshness of Miss Ella Green, F. S. Vallis, Frances Jolliffe, Mrs. Pearson, Hon. Mrs. Lopes, Mrs. F. C. Stoop, Kara Dow, Frank Payne, Mrs. W. Knox, Mme P. Radaelli, Miss A. Nicoll, D. B. Crane, Master David, Gladys Blackburne, Bessie Godfrey, R. Vallis and Mrs. R. H. B. Marsham; Mr. Hugh Andrews, Loddington Manor, Winchcombe, taking second; Mr. H. Woolman, Shirley, and the Countess of Craven (gardener, Mr. H. Chandler), Coombe Abbey, Coventry, following in order of merit.

For four vases of Japanese, distinct, three blooms in each vase, J. H. Wheatley, Esq. (gardener, Mr. W. H. Westbury), Berkswell Hall, Coventry, was first, with some good blooms of Mrs. Pearson, Mrs. Charles Penford, R. Vallis and Frances Jolliffe; Mr. W. Iggulden second, Mr. Hugh Andrews third, and the Countess of Craven fourth.

For a table 6 feet by 3 feet, containing twelve distinct varieties of Japanese, one bloom in a vase with foliage, Mr. Hugh Andrews was first, and Richard Peyton, Esq. (gardener, Mr. A. W. Young), Edgbaston, second.

In the class for twelve incurved blooms, distinct, arranged in four vases, H. F. Keep, Esq. (gardener, Mr. T. W. Davis), The Grange, Edgbaston, secured first with some good blooms of Calypso, Romance, Mrs. E. Ashworth, Embleme Poitevine, Clara Wells, Mrs. B. Hankey, Triomphe de Brun, Mrs. J. Hygate, Pantia Ralli, Mrs. F. Judson, C. H. Curtis and Buttercup.

For a similar class grown within four miles of Stephenson Place, Mr. T. W. Piggott took first, Mr. H. F. Keep second, and Mr. J. A. Kenrick third.

Mr. F. W. Greswolde Williams obtained first for a good table of singles, including Sylvia Slade, Mrs. F. C. Hunter and W. Pagram; second, Major Everett, J.P.; third, Mr. T. W. Piggott.

GENTLEMEN'S GARDENERS AND AMATEURS.

For a dinner-table decoration, consisting of Chrysanthemums, Ferns and other foliage, suitable to seat six persons, four prizes being offered, there were twenty entries, Mr. H. Greaves, Wormington, Broadway, taking first with a single, shaded mauve pink, and green foliage; Mr. E. Deakin, Hay Mills, second; Mr. C. H. Herbert and Mr. J. Bastock, third and fourth respectively.

OPEN CLASSES.

Fruit.—For a collection of British-grown fruit, grown by the exhibitor, occupying a separate table, plants and foliage admitted, the Earl of Harrington (gardener, Mr. J. H. Goodacre), Elvaston Castle, Derby, took the leading honours, staging a most remarkable exhibit, including Grapes Muscat of Alexandria, Black Alicante, Barbarossa, Appley Towers and Alnwick Seedling; Melons Countess, Hero of Lockinge and Gunton Park; Pears Beurré Bosc, M. Leon de Clerc, Beurré Diel, Duchesse d'Angoulême, Doyenné du Comice, &c.; Apples Alfriston, Blenheim Orange, Washington, Emperor Alexander, Bramley's Seedling, Gascoyne's Scarlet, Allington, King of the Pippins, Cox's, &c.; Peach Sea Eagle; Oranges, Quinces and Medlars, in most excellent form. Lady Henry Somerset (gardener, Mr. G. Mulling), Eastnor Castle; Mr. Hugh Andrews, and Mr. W. E. Hyde, Ledbury, followed in order of merit.

For a collection of British-grown hardy fruit, Mr. C. W. Powell, Warham, Hereford, secured first with a remarkably clean and well-finished stand.

The Earl of Harrington also secured firsts in the classes for six bunches of both black and white Grapes.

Vegetables.—Special prizes offered by Robert Sydenham, Limited: In the class for a collection of vegetables consisting of nine varieties, open to all, Mr. T. Jones of Ruabon took first prize; and in a similar class for local growers, Mr. E. Deakin, Hay Mills, was placed first.

Special prizes by Messrs. Webb and Sons: For a collection of vegetables, eight distinct kinds, Mr. F. Barrett, Overton, secured the leading position, including Onion Masterpiece, Brussels Sprout Prizetaker, Carrot Standard, Potato Goldfinder, Celery Giant White, Cauliflower Peerless, Parsnip Marrowfat and Leek Champion Prize. Mr. John Hudson, Leicester, took second.

Special prizes were also offered for collections of vegetables by Messrs. Sutton and Sons, the first place being won and the premier exhibit of vegetables being staged by the Hon. Vicary Gibbs (gardener, Mr. E. Beckett), Aldenham, Elstree, with a magnificent display of good finish and excellent quality. The varieties staged were Autumn Mammoth Cauliflower, Prizetaker Leek, Red Intermediate Carrot, Perfection Tomato, Windsor Castle Potato, Dwarf Gem Sprouts, Ailsa Craig Onion, Superb Pink Celery and Tender and True Parsnips. Mr. F. Barrett, Overton, took second.

NON-COMPETITIVE EXHIBITS.

Large gold medals were awarded to Messrs. Webb and Sons for vegetables and flowers, Messrs. John Waterer and Sons for choice hardy shrubs, Messrs. Clibrans for vegetables and winter-flowering Begonias, Messrs. Pewtress for collection of Apples, King's Acre Nurseries for fruit, Messrs. G. Massey and Son for Potatoes and Gourds, Messrs. Toogood and Sons for vegetables, and Messrs. Richard Sankey and Son for garden pots.

Gold medals to Mr. W. H. Simpson for collection of vegetables, Messrs. Thomson and Co. for vegetables, Messrs. Hewitt and Co. for shrubs, Mr. W. J. Godfrey for Chrysanthemums and Zonals, Messrs. Young and Co. for Carnations, Mr. H. Woolman for Chrysanthemums, Messrs. W. Wells and Co., Limited, for Chrysanthemums, Messrs. H. Cannell and Son for collection of Apples, and Frank Bibby, Esq. (gardener, Mr. J. Taylor), for collection of fruit.

Silver medals to Mr. H. N. Ellison for Gerberas and Ferns, Miss Thompson for Cacti, and Messrs. Bakers, Limited, for shrubs.

First-class certificates were awarded to Messrs. W. Wells and Co. for Japanese Chrysanthemum Mrs. Gilbert Drabble, and to Lieutenant-Colonel Beech for Wells' newly-introduced Japanese Chrysanthemum Pockett's White Australia.

SOUTHAMPTON CHRYSANTHEMUM SHOW.

NOVEMBER 7 AND 8.

THE exhibition held on the above dates proved to be a most successful one. The quality of the exhibits, especially in the classes for Chrysanthemums, hardy fruits—notably Apples—and vegetables, was very high and competition keen. Mr. Fuidge and his able council are to be congratulated on securing such a fine show and making such complete arrangements in connection with it. The non-competitive group of Begonias and miscellaneous plants, so artistically arranged by Mr. Turner, gardener to the Hon. Mrs. Eliot Yorke, was deservedly awarded a gold medal. Messrs. E. Wills, Rogers, Limited, Ladhams, Limited, Hillier and Sons, Toogood and Sons, Longster and other local firms added greatly to the attractive appearance of the show by staging beautiful garden produce.

VASE CLASSES.

Mr. Mease, gardener to A. Tate, Esq., Downside, Leatherhead, was first with a lovely lot of blooms of the following varieties: Mrs. Marsham, F. S. Vallis, Walter Jinks, Kara Dow, Mrs. W. Knox, Mrs. A. T. Miller, Duchess of Sutherland and Master James, eight vases, three blooms in each. In the same class Mr. Baxter, the winner last year, came a close second; Mr. Hosey, gardener to J. C. E. D'Esterre, Esq., was third. In the class for six blooms of Japanese, white, two varieties, three blooms in a vase, Mr. W. Hall, gardener to Major S. F. Chichester, was a good first, F. W. Lever and Mrs. A. T. Miller being the varieties staged. A grand bloom of Mrs. A. T. Miller was selected as the premier Japanese. The same exhibitor was first in the class for six blooms, any two varieties other than white, having Bessie Godfrey and Rose Pockett in fine form. Mr. Baxter scored in the class for four vases of decorative Chrysanthemums. This was a lovely exhibit. Mr. Bealing, Southampton, scored in the class for four vases of decorative Chrysanthemums, singles and Japanese excluded. This also was a beautiful exhibit. For six vases of singles, disbudded, Mr. Marsh, gardener to M. Hodgson, Esq., was the winner, Mensa and Sylvia Slade being very fine and clean. In the class for six vases of singles, not disbudded, Mr. Marsh was again the premier exhibitor. Mr. W. Hall had the best twelve Japanese blooms in four varieties.

BLOOMS ON BOARDS.

Mr. Baxter won in the principal class for twenty-four blooms in not less than sixteen distinct varieties with the following: Mrs. G. Hemming (2), Lady Talbot (2), Master James (2), Frances Jolliffe (2), F. S. Vallis (2), Eclipse (2), Mme. P. Radaelli (2), Hon. Mrs Lopes, W. Rawlings, Mrs. F. Stoop, J. H. Silsbury, Colonel Couverse, F. Payne, W. Mease, D. B. Crane, W. J. Etherington and Rose Pockett. Messrs. Marsh and Mease were second and third respectively, each showing grand blooms. Mr. W. Hall was first for twelve Japanese, distinct, and Mr. Chandler second. Mr. Marsh scored in the class for eighteen incurved, not less than twelve varieties, Romance, Mrs. G. Denyer, H. W. Thorpe, Clara Wells, W. J. Higgs and Mrs. J. Wynne being very fine. Mr. Mease was second with a lovely lot of blooms, the variety Pantia Ralli being selected as the premier bloom. Mr. F. G. Bealing had the best group of decorative, single and other Chrysanthemums; and Mr. Hall, gardener to Ellen Lady Swaythling, was second.

FLORAL DECORATIONS.

These formed a beautiful feature of the show. Mr. Cope, Wimborne; Miss Taylor, Salisbury; and Mrs. Bealing had the best tables decorated with Chrysanthemums and any foliage. They won in the order named. Mrs. Bealing was first and Miss Taylor second in the class for vases of Chrysanthemums and foliage. For the most elegant stand of Chrysanthemums and foliage, Mrs. Bealing was the winner, Miss Taylor being second. Mr E. Wills was first for both bridal and ball bouquets.

FRUIT AND VEGETABLES.

Mr. Ellwood, gardener to W. H. Myers, Esq., won in the class for two bunches of Grapes, any black but Alicante. Mr. W. Hall had the best two bunches of Alicante in that class. Mr. W. Hall again scored with two grand bunches of Muscat of Alexandria, and also in the classes for a single bunch of white and a single bunch of black Grapes. In the class for four varieties of Apples, dessert, Mr. West, gardener to Mrs. Knox, Alton, was successful. Mr. W. Sims had the best four varieties of kitchen Apples. Mr. Ellwood was first for a single dish of any dessert variety other than Cox's Orange Pippin with grandly-coloured Blenheim Orange. Mr. W. Hall scored in the classes for four varieties of Pears and a single dish respectively. Mr. Ellwood was easily first in the classes for Messrs. Sutton's and Messrs. Toogood and Sons' collections of vegetables respectively, staging fine produce.

NON-COMPETITIVE EXHIBITS.

Gold medals were awarded to Mr. Turner, gardener to the Hon. Mrs. Eliot Yorke, for a group of Begonias; Mr. E. Wills for floral designs; and Messrs. Toogood and Sons for a collection of vegetables.

Silver-gilt medals to Mr. Ellwood for Apples; Messrs. Rogers and Sons, Limited, for alpines, Roses and Apples; Messrs. Hillier and Sons for Apples; Messrs. Jarman and Co. for Apples and Zonal Pelargoniums; and Messrs. Longster for Chrysanthemums, Apples and vegetables.

Silver medal to Messrs. Ladhams, Limited, for alpines, herbaceous flowers and Apples.

Award of merit to Mr. F. Chandler for a collection of Gourds. From threepennyworth of seeds this gentleman raised 7cwt. of produce.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor of The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

NEW PLANTS FROM CHINA.

THE first decade of the twentieth century has been remarkable for many things relating to horticulture. Progress in a number of diverse directions has been exceptionally rapid; hybridists have been at work on almost every flower, and the results of their labours have been so immense and far-reaching as to almost overwhelm us. Yet all this is infinitesimal compared with the hosts of new plants, new genera and species which have been introduced during that time from Northern China. So accustomed have we already become to seeing some of these in our gardens that it is indeed difficult to realise that less than thirteen years have elapsed since Mr. E. H. Wilson started on his first journey to China for the purpose of collecting seeds or roots of new plants, a journey which proved eminently successful and has been repeated on three subsequent occasions with almost, if not quite, as successful results.

Although, as we have already stated, a number of plants collected by Mr. Wilson, particularly those of herbaceous character, are now comparatively well known, there are immense numbers of trees and shrubs of which, owing to the long period they take to raise from seed, little has as yet been heard. Seeds of Rhododendrons and conifers, two genera that are particularly prevalent in China and Thibet, have been sent or brought home by Mr. Wilson and Mr. Forrest in large quantities, and although a few of the first-named have reached flowering size, and some of them, such as Rhododendron Souliei, promise to be useful additions for garden purposes, the merits of the majority cannot, as yet, be determined.

We have heard it stated, on more than one occasion, that the bulk of the plants introduced from China and Thibet are of botanical interest only. In this there may be some truth, yet the quantity is so large, that even if a few only prove to be good garden plants, our existing collections will be immensely enriched thereby. We need only mention such kinds as Meconopsis integrifolia, Primula pulverulenta, P. bulleyana, P. Winteri, Senecio clivorum, Aconitum Wilsonii, Rehmannia angulata, Clematis montana rubens, C. nutans, Vitis Henryii, Buddleia variabilis and its several beautiful forms, Cotoneaster applanata, Ilex Pernyii, Viburnum rhytidophyllum, Rhododendron intricatum, Berberis Thumbergii and Davidia involucrata to demonstrate how much our gardens already owe to the introductions of the last twelve years. In the current issue of the *Kew Bulletin* Mr. W. J. Bean contributes an interesting article on new Chinese species of trees and shrubs, some few of which were sent home by various collectors prior to Mr. Wilson's first visit, and two at least of those described, viz., Berberis verruculosa and Sarcococca humilis, promise to prove valuable additions to the shrub border and rock garden respectively.

Apart altogether from the value of these new Chinese species as garden plants, and of far greater intrinsic worth, is the fact that hybridists have been provided with new material to work their skill upon. What some of those species now regarded as practically worthless for garden embellishment will give us when artificially wedded to others of their ilk by the careful, intelligent application of the hybridist's art, time alone can prove. That they will have a far-reaching effect in altering the aspect and enriching the contents of our gardens no one can doubt. They are pregnant with all sorts of possibilities, and our gardens of the future will owe not a little of their interest and beauty to plants from China, that land of mystery and historical interest.

Although horticulturists in this country have not been slow to recognise the merits of the best of these new introductions, and the Royal Horticultural Society has honoured them by conferring upon them first-class certificates and awards of merit, nurserymen and the principal horticultural societies in the United States have taken but little notice of them, a fact that was commented upon by Mr. Wilson when lecturing before the Horticultural Club of Boston on the 1st inst. To us in England this apparent lack of interest in these epoch-making plants is difficult to understand, especially as it was through the influence of Professor Sargent, Director of the Arnold Arboretum, that Mr. Wilson made his last two journeys to China. As this eminent collector pointed out, the range of climate in the United States is an exceptionally wide one—in some parts more favourable even for these Chinese plants than is that of England, so that there is no excuse under that heading for the general lack of enterprise that exists. Possibly Mr. Wilson's pungent

remarks will stir some of his audience into activity, and providing they select their plants with judicious care, we can, judging by what we already know of the plants at home, assure them that they will be making a step in the right direction.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 29.—Irish Gardeners' Association and Benevolent Society's Meeting.

December 2.—Société Française d'Horticole de Londres Meeting.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, November 13, Mr. Thomas Winter in the chair. The death certificate of the late Mr. F. Morris was produced, and the sum of £29 5s. 7d. standing to his credit was granted to his nominee. Mr. H. Heims asked to be put on the Benevolent Fund. After due consideration it was agreed to grant him 5s. per week. The amount of sick pay since the last meeting was £54 5s. Mr. R. Weatherley was granted 19s. 6d. from the Benevolent Fund to pay his arrears. The Insurance Bill was discussed at some length, and a special committee meeting will shortly be held with a view to decide as to what is the best course to take in the matter.

Perthshire Sweet Pea Society.—The annual meeting of the members of this society was held in Perth on November 11. There was a good attendance, presided over by the president, the Rev. H. Mayall. The reports of the secretary and treasurer were considered satisfactory and adopted. The following office-bearers were appointed, together with the usual committee of others interested in the culture of the Sweet Pea: Hon. presidents, the Earl of Moray, the Marquis of Tullibardine, M.P., and Lord Ninian Crichton-Stuart, M.P.; president, the Rev. Harold Mayall; secretary, Mr. R. S. Halley, Priory Villa, Perth; treasurer, Mr. A. M. Mechie. In addition to the formal business, a most interesting and useful paper was read on his method of the cultivation of the Sweet Pea by Mr. J. Grigor, Forres, one of the leading Scottish prize-winners of the year. It was a highly practical one, and was much appreciated.

Research Scholarships in Agricultural Science.—The Board of Agriculture and Fisheries have awarded Research Scholarships in Agricultural Science to the following gentlemen: P. G. Bailey, B.A. (Camb.); J. Clayton, B.A. (Camb.); J. T. Edwards, M.R.C.V.S.; E. T. Halnan, B.A. (Camb.); J. Hammond, B.A. (Camb.); J. A. Hanley, A.R.C.S.; G. E. Johnson, M.Sc. (Birm.); C. G. P. Laidlaw, B.A. (Camb.); A. E. Lechmere, M.Sc. (Bristol); J. W. Lesley, B.A. (Camb.); A. Neville, B.Sc. (Lond.), F.I.C., F.C.S.; and G. T. Spinks, B.A. (Camb.). These scholarships have been established in connection with the scheme for the promotion of scientific research in agriculture, for the purposes of which the Treasury have sanctioned a grant to the Board from the Development Fund. The scholarships, which are of the annual value of £150, and are tenable for three years, have been established in order to train promising students, under suitable supervision, with a view to their contributing to the development of agriculture, either by carrying out independent research or by acting in an advisory capacity to agriculturists.

Cross-fertilising Peas.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. A. W. Sutton gave an interesting account of his experiments in crossing a Pea which he found in Palestine in 1904 with forms of our cultivated Peas. The plant found was weak-stemmed, about three feet in height, and bearing very small, blunt pods. With the idea of discovering whether this wild form could be the ancestor of our white-flowered culinary Pea (Pisum sativum) or the bicolored field Pea (P. arvensis), which some consider varieties of one species, Mr. Sutton made about forty crosses with various forms. The results tend to prove that the Pea occurring wild in Palestine is not the plant from which our cultivated forms have been derived. Mr. Sutton exhibited seeds of the wild form and of the cultivated ones with which it was crossed. It was unanimously resolved to recommend the award of a certificate of appreciation to Mr. Sutton for his work in connection with these Peas.

Regulations for exhibitors at the International Exhibition.—The directors desire to draw the attention of exhibitors at the forthcoming Royal International Horticultural Exhibition to the fact that they have decided not to enforce the condition printed at the foot of the entry-forms already distributed in the schedules to the effect that specimens (plants, &c.) must have been cultivated by the exhibitor for at least two months prior to the date of the show. Regulation 20, in the revised schedule, is the only stipulation of the kind that will be retained, namely, that the "Exhibits must be the property of the exhibitor, or of the employer in whose name they are shown." The directors also announce that they will provide all necessary plates and vases; the plates will be of cardboard or papier mâché.

Women's Agricultural and Horticultural International Union.—The annual meeting of this union of women workers was held on Wednesday, November 15, in the Indian Museum at 24, Park Lane, by kind invitation of Earl and Countess Brassey. Lady Willingdon presided over a most enthusiastic gathering, and in the course of her opening address, which was in strong sympathy with the work of the Union, expressed her intention to become enrolled as an active member. Mrs. T. Chamberlain, the hon. secretary, furnished some interesting details regarding the work during the past year. Sixty-two new members had joined and only three withdrawn, the employment department had been removed from the Royal Botanic Gardens to the offices at Lower Sloane Street, and an examination in practical horticulture has been inaugurated, the first three diplomas being presented during the afternoon. The Union is moving into more commodious premises in January, 1912, and the exhibition is to be held on October 23 at the Horticultural Hall, Vincent Square. Mrs. Gould Dale (Ontario) gave a most interesting and instructive address on "Horse Breaking and Training," and dealt with the subject in a most practical manner, the points emphasised being forethought, tact, love and patience. Professor Bottomley of King's College also gave a most interesting discourse on "Hybridisation," and described briefly the Mendelian theory as at present advanced and its application to horticulture, several useful questions being raised. A hearty vote of thanks to Lady Willingdon and to Earl and Countess Brassey concluded the meeting. Tea was partaken of, and the visitors were invited to inspect the many treasures collected on the voyage of the *Sunbeam*.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Seeds of Ranunculus Lyallii.—I have been able to get plenty of seed of Ranunculus Lyallii, and should be glad to supply any of your readers who care to try it.—E. IZARD, *Whanaka, Christchurch, New Zealand.*

Good Rose plants.—In view of the great importance of *good* plants, I have often wondered why the National Rose Society have not added a class for "the best plant." Such an exhibition would educate the public and induce nurserymen to consider the tree as well as the show blooms, which, I fear, have rather monopolised their attention. To the rosarian who has to buy his plants, ripened wood is more than champion prizes, and fibrous roots more than silver medals. I hope "those in high places" will give this essential point in the success of Rose culture their best attention, and why should it not be considered at the approaching annual meeting of the society?—J. MORGAN EVANS, *The Cottage, Llandrindod Wells.*

New winter-flowering Begonias.—The Editor did well to give an illustration of one of the three new winter-flowering Begonias for which Messrs. J. Veitch were given awards of merit at the meeting of the Royal Horticultural Society on November 7. I look upon these Begonias as the most valuable acquisition among winter-blooming subjects that we have had for a very long time, as, apart from other considerations, they are in colour a complete break away from the carmine and carmine rose tints of the socotrana hybrids with which we are so familiar and which are so much appreciated. The three varieties above alluded to are Acquisition, Exquisite and Her Majesty. They were all obtained by the intercrossing of Begonia socotrana and a yellow-flowered variety of the tuberous-rooted section. The tuberous kind selected must have been a particularly good form, as the flowers are large and well shaped. As may be seen in the illustration, the general aspect of the plant suggests a much closer affinity to the tuberous section than to the other parent, though close inspection reveals traces of B. socotrana, the influence of which is markedly evident in the time of flowering. The yellow colour of one parent is manifest in each of the three varieties, though in the case of two of them it is limited to a suffusion in the interior of the flower. The variety Her Majesty is the most decided break away, the colour being a warm orange with a reddish suffusion towards the edges of the petals.—H. P.

A poisonous climber.—In THE GARDEN dated November 11 I notice a letter under the heading, "A Poisonous Climber." The Poison Ivy Vine referred to is a rapid grower and spreads quickly. It is found in many States on the Atlantic Coast of the United States, and I have seen it everywhere in New York State. Poison Ivy (Rhus Toxicodendron) can be readily recognised, as it has but three leaves instead of five, as has the

Virginia Creeper. Also, Poison Ivy turns a bright yellow instead of red in the autumn. Wherever found, it should be removed root and branch. The best way to do so is to chop through the stem at the ground-level, or to saw through at the same point. When the Vine has died, remove it and dig up the root, burning the whole thing. The root and stems have great vitality. There is another poisonous Rhus, the Poison Sumach, or R. venenata. In botany it is thus described: "Shrub smooth; leaves pinnate; leaflets 7—13, entire panicles slender in the axils; fruit smooth." This turns red in the autumn. There are other kinds of Rhus, non-poisonous, very rapid growers and decorative, with red and downy stems. Both these kinds grow by the roadside and in worn-out fields in New York State, and need very little rain.—AN AMERICAN.

Runner Bean seeds — A well-known Kentish seed-grower recently mentioned that seeds of good stocks of Runner Beans must be very scarce next spring, as in his experience the seed produce of large breadths grown expressly for seed production was some sixty per cent. below the normal. If that represents the average seed produce of the kingdom, then the outlook for growers of these Beans is anything but bright. Perhaps better fortune has come to some others who grow stocks for seed. But almost universal were complaints of the falling off of flowers, leaving sterile stems, from plants during the great heat of the summer. When with some showers and cooler weather flowers set and pods came freely, it was too late for well-ripened seed to be produced. It is, no doubt, that important break in pod production caused by abnormal heat which created the scarcity now so much to be lamented. A question has been raised as to the desirability of lifting and wintering the fleshy roots of old plants to make stock for next year. Very few, it is feared, have had experience of wintered roots, but if any have, that experience just now might be helpful.—A. B.

Gardeners and the International Horticultural Exhibition.—Much as Mr. Lemesle Adams and those Royal Horticultural Society Fellows who support him may feel dissatisfied with the newer terms of admission to this great exhibition in its early days offered to the society's Fellows, I can but feel grateful for the British gardener that very material reductions in relation to charges for admission on the second and two following days have been made by the executive on his behalf. I know that for such reductions the gardener owes very much to the persistent advocacy of a few fellow-gardener representatives on the executive. It is true few gardeners may care to come far for the privilege of purchasing tickets of admission on the second day for 5s., as sums of that kind make serious inroads on a gardener's pocket, especially if coming far and staying in London over two or three nights. But I look for a big gathering of the brotherhood on the third day, when the charge to the gardener is but 2s. 6d., a sum he will doubtless pay more readily, especially as few can be from home on Saturday, Sunday and Monday. It may even be hoped yet that some additional cause for a great gathering of the gardeners of Great Britain next May may be provided. No doubt, so far as the Fellows of the Royal Horticultural Society are concerned, all trouble would have been averted had the executive meted out to all of them the same privileges as have thus been fittingly arranged for the British gardener.—A. DEAN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PROTECTING TENDER PLANTS.—The more tender plants will need some kind of protection during the winter. Cocoanut fibre or ashes placed over the crowns of such plants will keep off a good deal of frost. A quantity of Bracken and Heather should be put in a dry place in readiness for protection during very severe weather. This material forms a good shelter for the less hardy Roses. Rose-beds in exposed situations should be sheltered by means of hurdles thatched on one side with Heather or something similar.

Leaves.—Now that all the leaves are fallen, no time should be lost in gathering them up. Those which are not required for hot-beds or for making leaf-mould (those of Oak and Beech are the best for this purpose) should be burnt at once.

Roads and Paths.—Press on with the work of remaking or mending roads and paths which are in need of it. If a portion of this work is done every season, there will be no difficulty in keeping this important part of the estate in good order. Grass verges should be cut and levelled where this is necessary. This is a good time to examine and repair drains.

Plants in Cold Frames.—Plants which have been placed in cold frames for the winter should be occasionally looked over for dead leaves or mildew. Air must be freely admitted when the weather will allow of this being done. Cover the lights with mats or Bracken during very severe frost. During wet weather the whole of the stock of bedding plants which are in heated structures should be picked over. Disturb the surface of the soil a little with a pointed stick.

PLANTS UNDER GLASS.

Richardias.—A few of the earliest of these may be selected and placed in a warmer house, where they will flower a little in advance of the main batch. Keep them near to the glass to prevent the foliage from becoming drawn. When they are flowering they must be liberally fed with liquid manure and soot-water. If green fly is troublesome, fumigate with XL All.

Chrysanthemums.—As these pass out of flower they may be cut down and the stools placed in a light structure near to the glass. The object now is to procure clean, sturdy cuttings of the various kinds it is intended to grow next year. Those which are not required should be discarded at once. Cuttings which give the best results are those which are grown under cool conditions in plenty of light. Preparations may be made for inserting the first batch of cuttings. The soil should be prepared, and will be the better if laid in a heap on the potting-bench for a few days before using; this will consist of loam, leaf-soil and coarse sand. An ideal place for striking the cuttings is a box-frame erected on a stage in a greenhouse.

Forcing Shrubs.—A few Lilacs, Deutzias, Weigelas, &c., may be potted up and placed in heat. Ghent and mollis Azaleas may be placed in the forcing-house, also some of the earliest bulbs and Lily of the Valley. A few pot Roses may be brought on in a gentle heat.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS BORDERS.—The final cutting over of all the latest flowering subjects may now be proceeded with, although some of the last of the Michaelmas Daisies have but recently afforded a patch of colour to an otherwise bare expanse of stumps and labels. The ripened shoots should be cut close to the ground, all weeds and leaves cleared off and the borders receive a general tidying. Several subjects that have been found to be none too hardy for the district should have attention, lifting either the whole or small divisions of the roots and placing them in a cold frame for the winter; others may be afforded some slight protection. Such plants as Anchusa italica, Chelone barbata, Incarvillea, Liatris, Monarda and Heuchera we have found to suffer in severe winters. Tritomas seem to suffer if heavy falls of snow are allowed to lodge on the crowns, and to avoid this we recommend twisting the foliage up into a neat mound and thatching each plant over with some protecting material, the most convenient article being a few shoots of green Broom stuck round them, having the tops brought together and tied in the shape of a cone; this acts as a protection from damp without unduly coddling the plants. A few of the varieties of Montbretia are quite hardy with us, having only suffered slightly some years ago when the thermometer fell below zero on five consecutive nights. Some of the new and larger flowering sorts are less hardy, but will come safely through the winter if a mound of coal-ashes is placed over the roots. We take similar precautions with Eremuri, although one plant of E. robustus has stood the past eight winters without any protection whatever. If the weather remains mild, transplanting may be successfully done where only a few alterations are necessary, but for extensive plantations, where the ground requires trenching and manuring, we prefer spring planting.

Wall Plants.—A few branches fastened over the tender wall plants will often prevent these being killed to the ground. Such plants as Sweet Bay, Arbutus and Fabiana come through our winters fairly well when planted on a south wall and given some such protection; and although these may be expected to be killed down to the ground-level once or twice in a decade, the prospect of seeing them growing to the top of a 10-feet wall in the interval is worth the little extra trouble of covering them.

Christmas Roses.—These should have frames placed over them and be protected with mats from hard frost if good clean blooms are to be expected.

Bedding Pelargoniums.—The rooted cuttings in the boxes should be examined frequently and all decayed leaves removed. If water is required, choose a fine day for giving it, so that most of the moisture will have dried up before evening. Keep a little warmth in the pipes and give plenty of ventilation as frequently as possible, but avoid cold draughts blowing directly on the plants. Old stools that were lifted from the beds and potted up will also require cleaning, and the decayed stems cut off. Cuttings of Alyssum, Ageratum, Lobelia, Petunia, &c., should be kept in a cool temperature where growth will not be excited. Tender subjects, such as Coleus, Alternanthera and Iresine, require an intermediate house.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

TREES AND SHRUBS.

AN INTERESTING NEW ZEALAND SHRUB.

(HYMENANTHERA CRASSIFOLIA.)

A SPRAY of this beautifully-berried shrub has been sent to us from the Royal Botanic Gardens, Glasnevin, Dublin. For some unknown reason the merits of this subject have been almost overlooked. It is a native of New Zealand, and was introduced to this country more than a quarter of a century ago. It is hardy in the South of England, and evidently flourishes in Ireland. Evergreen and rigid in habit, its chief beauty is seen in its clusters of glistening white berries, borne in the autumn and winter months. When grown in the bush it is usually so dense that the berries do not show up so well as in the cut spray. For decorative purposes it is of great value, as the spray remains fresh for many weeks and there is little tendency on the part of the berries to drop. The name Hymenanthera is not, so far as we know, connected with Hymen of Greek mythology, the god of marriage and son of Apollo, usually represented as a youth bearing in his hand a bridal torch. The name is derived from "hymen," a membrane, and "anther," since the anthers are terminated in a membrane.

THE DWARF CHESTNUT.

(ÆSCULUS PARVIFLORA.)

THIS is a dwarf-growing Chestnut which is sometimes called the "Shrubby Buckeye." Some readers may, perhaps, have the plant growing under the name of Pavia macrostachya. It is a native of the South-Eastern United States, and flowers towards the end of July and in August. Æsculus parviflora forms a large spreading bush a dozen feet or more in height, and sometimes as much as 20 feet through. Originally starting from a small plant, the growth is fairly rapid, and in time the outer branches lying on the ground take root and form one large specimen. This effect may be more quickly obtained by planting half-a-dozen bushes in a group. The flowers are white, and borne in long, slender racemes sometimes as much as 12 inches in length. The most general method of propagation is by layering, as the fruits fail in most seasons to reach maturity. This year, however, we have collected a fair number of ripe seeds, several of which, to our surprise, are as large as those of the common Horse Chestnut. A. B.



A FLOWERING SPRAY OF THE DWARF CHESTNUT, ÆSCULUS PARVIFLORA.

COTONEASTER APPLANATA.

OF the several Cotoneasters that have been introduced from China within the last few years, this is one of the most distinct. A notable feature is the long pendulous nature of the branches, which are but little divided. Such a feature would indicate that grown as a standard it might be seen at its best, and such is the opinion one forms by seeing some examples grown in this way, and laden with berries, in the Coombe Wood Nursery of Messrs. James Veitch and Sons. It was originally sent home by their collector, Mr. E. H. Wilson, and was given an award of merit four years ago. Effective as it is when grown as a tall standard, it is none the less so when trained to a wall, and the surface thereof is draped with the drooping shoots of the Cotoneaster. The flowers are white and freely borne. They are succeeded by berries, which, when ripe, are of a bright scarlet colour, and in this condition they remain a considerable time. Of the newer Chinese Cotoneasters, mention may be made of C. rugosa Henryii, whose leaves and branches both have a peculiar drooping tendency. The berries are brownish red, and, consequently, less effective than the preceding. Cotoneaster humifusa is an evergreen species that lies almost flat on the ground. It, however, grows freely, so that it is just the thing to clothe a sloping bank. The berries are red. H. P.



FRUITING BRANCH OF A LITTLE-KNOWN DWARF NEW ZEALAND SHRUB: HYMENANTHERA CRASSIFOLIA.

THE ROSE GARDEN.

NOVEMBER ROSES IN HOLLAND.

ALTHOUGH I write "in Holland," the place whence I write is also very near to Germany, being but a few miles from the frontier. Late autumn Roses have been both glorious and abundant, and after such a summer one Rose in November is worth six in July. With us the Roses, especially Teas and Hybrid Teas, grew well late in the season, with the result that plenty of good flowers are now to be found.

One of the most charming has been Mme. Hector Leuilliot, growing on standards, making strong, rigid growths and yielding excellent blooms. Princesse de Sagan, on standards, and yielding flowers on November 9, is something to remember, for it is shy at any time and not particularly hardy, but there are few crimson Roses so dark and full and sweet. G. Nabonnand, on standards, has

given an abundance of flowers throughout October, and still is gay, as also is Dr. Grill, which is so near in colour and habit as to be almost at times indistinguishable. Kaiserin Augusta Victoria, both as standard and bush, is superb and full of buds, and the same is to be said of Mme. Jules Grolez, with its delicately-shaded colouring and pointed buds.

Perhaps the two kinds giving most flowers at this time are the ever-welcome and well-known Caroline Testout and The Lyon Rose, although the colouring of the latter lacks that diversity so characteristic early in the season. General Macarthur has easily taken the place of Richmond, being stronger and flowering a lot freer. Frau Lilla Rautenstrauch flowers much stronger in the autumn and is well carried, being less drooping, with deep-coloured flowers; an excellent companion to Mme. H. Leuilliot.

Rose d'Evian is a splendid pink little known in England. It has full, deep flowers, produced freely at this time. I do not know the origin of this Rose, but it deserves a place in all collections, as also does a beautiful pink Rose of Dutch origin called Rosa Verschuren, raised by that celebrated hybridist. The leaves are more or less mottled, with a creamy yellow variegation, which adds some little novelty. Other Roses that have helped considerably to prolong the season and have proved their worth after so trying a summer are Marie van Houtte, Marquise de Sinety, Paul Neyron, White Maman Cochet, Viscountess Folkestone and La France.

H. RABJOHN.

Twickel Gardens, Twickel, Holland.

ROSE WHITE MAMAN COCHET.

THIS well-known Tea Rose has been remarkably fine this year, and its presence has been felt on many a winning board. Of exquisite shape and pale lemon white in colour, it is quite an exhibitor's Rose. One thing is certain in its culture, and that is that to obtain the best blooms it must be pruned hard.

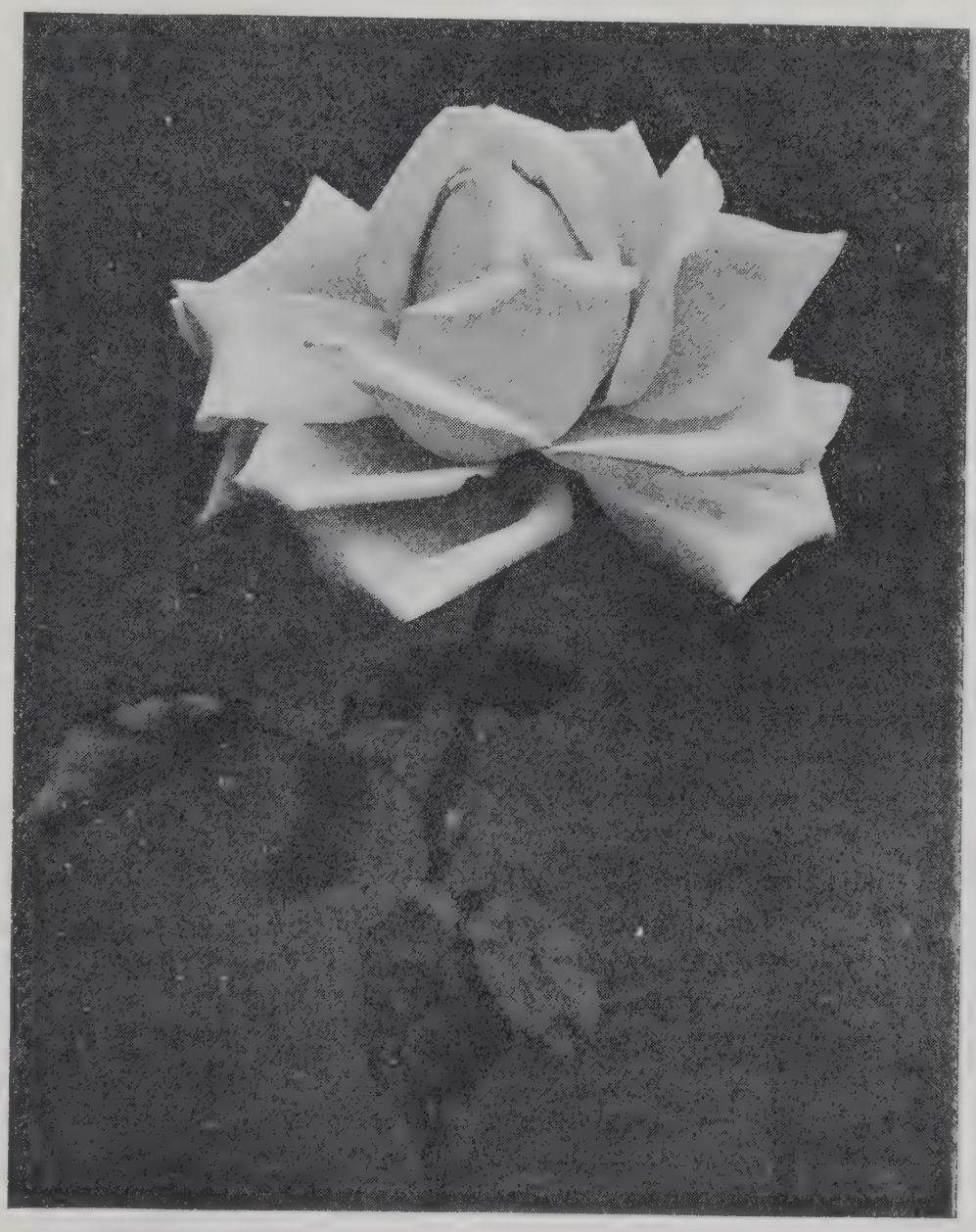
BEDDING ROSES AND BOLD EFFECTS.

EVERY good gardener is fully aware of the value of burnt clay as an ingredient to employ when forming new Rose-beds; especially is this the case when a heavy clay soil has to be dealt with. If evidence were needed as to this, I would advise any readers of THE GARDEN who live in the vicinity of Westcliff-on-Sea to look in and see what has been done in the Public Rose Garden at Chalkwell Park. Here may be seen Roses, only planted last November, making most astonishing growth, appearing for all the world like two and three year old bushes, and this not with big growers such as Hugh Dickson, but with the beautiful Hybrid Teas such as Mme. Ravary, Mme. Abel Chatenay, Betty and Killarney. So remarkably large were the blooms upon plants of William Shean that it was found necessary to give them the support of sticks. Of course, this is not an ideal bedding Rose—indeed, I should never think of advising it for the purpose—but its blooms are truly grand, nevertheless. The reason I mention Chalkwell Park Gardens is that Mr. Little, the able superintendent, employs burnt earth more freely than I have ever seen it used before, and the result has astonished me. That bedding Roses will be a feature in every garden requires no word of mine to assert, for it is evident wherever one goes. Masses of a sort are the order of the day, and truly grand the beds appear. I have been particularly pleased with some beds I prepared and planted in April last. The land, a grass meadow, was simply ploughed over, and as I thought the depth of soil would not be sufficient, I marked out good wide paths and shovelled the soil from these paths on to the beds, which were some 5 feet wide. The beds were allowed to lie and settle down; then came the wintry weather in April, which hindered the planting. However, we were able to plant towards the end of the month, every plant being cut down at the time to within 3 inches or 4 inches from where it was budded.

Planted in bold masses, one can see the true value of certain Roses, and one is tempted to cover more land, so that one could plant a good mass of all the grand decorative Roses now obtainable. How superb in colour is Château de Clos Vougeot, quite the best deep maroon coloured Rose we have as a bedder! Victor Hugo is grand, but not so effective; and Friedrichsruh rather hangs its head too much, which is a great fault with a bedding Rose. By the side of these dark colours we want yellows and creams and what can we get in this way? We shall have to wait a while for Rayon d'Or, for at present its price is prohibitive; but when it is cheaper, what a clamour there will be for it! Harry Kirk and Mrs. Peter Blair are grand, but I think Duchess of Wellington surpasses both. Mme. Ravary and Le Progrès are beautiful in the extreme, and Mrs. Aaron Ward will be a great favourite, for its flowers stand up well. Marquise de Sinety is a marvel of colouring, and has been a great favourite this year; but Lady Hillingdon has been disappointing, its growth and bloom being much too thin. Arthur R. Goodwin is also grand. Among the paler yellows, Melanie Soupert and Mme. Hoste are most charming. I am expecting great things from Melody. What I have seen of it has given me a most favourable impression. James Coey is also a beautiful yellow bedder. Of the lighter reds, Ecarlate and General Macarthur have well maintained their positions as being two of the best scarlet or red bedders; but Leuchtfeur and Charlotte Klemm, as well as President Taft, will be formidable rivals to these two beauties.

George C. Waud is so unique in colouring that it demands a special note, the orange vermilion colouring and excellent growth placing it at the very top of garden Roses; in addition, it is a good show bloom. Liberty and Richmond are both good brilliant sorts, but this season has tried them very much, and they have not been specially good with me. When we are able to plant the beautiful novelties Edward Mawley and Leslie Holland, we shall have nearly all that we require in the matter of brilliant bedders.

Of pink varieties, Caroline Testout and Mme. Abel Chatenay still maintain the lead, and it will take something good to displace them. Betty has been rather poor this hot season, but Mme. Leon Pain has been superb, its orange pink buds being quite charming. Lyon Rose is, of course, a popular sort, and will remain so until M. Pernet-Ducher sends us his improvement upon it. He has a variety named Willowmere, which, I believe, will surpass the Lyon. I have been greatly charmed with Herr Peter Lambert's Frau Oberhofgartner Singer. It is so delightfully *new*, and that is more than one can say of many new Roses. Of course, one must not omit Mme. Jules Grolez, still one of the best rose pinks; while in a little lighter shade Mme. Maurice de Luze has found many admirers. Reliance is a lovely glowing pink, with wonderfully large guard petals. Of the pale blush and white shades, Pharisaer, La Tosca and Prince de Bulgarie still hold their own. White Killarney this season has been very poor, and I doubt whether it will ever be of much use. Peace is lovely in autumn; so also is Mme. Antoine Mari. Of course, there are hosts of others, but I think those who plant all the varieties I have recommended, will have most of the best for the special purpose of bedding and massing. P.



TEA ROSE WHITE MAMAN COCHET.

COLOURED PLATE.

PLATE 1439.

APPLE ARD-CAIRN RUSSET.

THERE is an element of romance about the latter-day history of this excellent dessert Apple, the merits of which are sufficient to justify us in presenting a coloured supplement of it with this issue. Two years ago we received fruits of this and several other old Irish Apples from Mr. Baylor Hartland of Ard-Cairn, Cork, and at the time were very much impressed by its attractiveness, crisp flesh and unique, sweet flavour. Last year, when Mr. Hartland exhibited fruits before the fruit and vegetable committee of the Royal Horticultural Society at Westminster, this high opinion was endorsed by the committee granting it an award of merit.

This beautiful Apple, which for many years seemed to have been overlooked, was discovered some twenty years ago in an old Irish garden by Mr. Hartland, who happened to be spending Christmas in the country at a friend's house, and the Apple was produced with the after-dinner fruit, its peculiar and pleasant, Banana-like flavour being commented upon. Its history was immediately taken up by Mr. Hartland, but no evidence could be found save that of the one tree in the orchard Previously the owner had sent fruit to many leading English nurserymen, all suggesting imaginary names, but none definite. Then Mr. Hartland, having worked up a stock of it, sent fruit from the young trees to Messrs. John Wright, V.M.H., and Owen Thomas, V.M.H., neither of whom recognised it, but the former suggested the name which it now bears. It is an Apple with a shape, colour and exquisite flavour of its own, and is a valuable addition to the present list of first-class dessert Apples. In many parts of this country, as well as in Ireland, there are, no doubt, a number of excellent Apples, not in general cultivation, which, in these days of strenuous living, are liable to be lost.

THE FLOWER GARDEN.

TROPÆOLUM SPECIOSUM AND ITS CULTIVATION.

AMONG flowering plants having a twining habit of growth, the above-named deservedly holds a foremost position, and anyone on first viewing it in full bloom can scarcely fail to be impressed by its unique and gaudy appearance. The plant is somewhat fastidious as to soil and situation, growing rampantly in one position, while in another but a short distance away the reverse is the case, despite all efforts to supply its requirements. The cool, moist climatic conditions appertaining in general to Scotland are apparently conducive to its well-being, judging by the frequency with which it is encountered in various parts of the country, both in the environment of the stately mansion and that of the humble cottage. Being quite hardy and perennial in growth, the plant, once established in a congenial site, will, in all probability, thrive luxuriantly and continue to increase its area by way of underground root extension for an indefinite period.

Dense shade of other plants, which, by the way, act as hosts to the long trailing growths in the summer season, is not in any way inimical to its progress, but rather the reverse, and the splendour of colour resting upon masses of evergreen is displayed to greater advantage than is possible by any other method of training. Within a few yards of where these notes are penned, a large spreading bush of Rosa rugosa has for several years past in late summer and autumn been almost covered with the growths of this Tropæolum, its slender tuberous roots being quite able to hold their own in conjunction with those of the Rose in a soil that is distinctly close and heavy naturally, and upon which the sun, owing to the position and overgrowth, can exert but little influence at any season. Last winter much disturbance of the root system was carried out to obtain supplies for planting elsewhere; but this appears to have acted beneficially, for not only is the usual growth and floriferousness fully maintained, but, owing probably to the intense heat of the past season, the growths have spread to an adjoining Portugal Laurel some 20 feet in height and have reached its topmost branch, flowering profusely upon this glossy surface, and the situation, being at the main entrance to the principal garden, this conspicuous feature has been much admired.

As already stated, this Tropæolum will not thrive in every garden, but I think there are but few in which it would not succeed were special care taken in the selection of the site, the preparation of the soil, if such is deemed necessary, and lastly, but really the most important, the time of year and suitability of the plants for insertion in the soil.

In the first instance, a cool rooting medium such as can often be found on the north side of a low wall or hedge, or at the base of some slender-growing shrub, will answer well. As to top growth, strong sunshine appears beneficial; but as the flowers are more lasting and retain their lustre longer when not exposed to the noonday sun, a partially-shaded position at this time is preferable. Support of some kind for the growths is necessary. Against a wall or building string or wire is easily affixed, on which the growths will entwine themselves. In these days when rambling Roses are so much in evidence, and too often the bare stems of these, it is not difficult to improve appearances by planting Tropæolum contiguous and allowing the growths to hide defects and produce a further display when the Rose-buds are past.

Soil in good heart requires little or no preparation by way of further enrichment; but if poor in character or exhausted by roots from other subjects, well-decayed manure should be used and the soil deeply worked, placing the manure well below the surface. A compost of fibrous loam, leaf-mould and sand should be used to surround the roots when planting, and, according to the season, watering should be attended to for a time or until free growth indicates that the plants may be left to their own resources. The roots or, more properly, tubers are strange in character, and anyone dealing with them for the first time would probably be surprised at their appearance as living objects, particularly so as the long, slender stem, scarcely the thickness of a lead pencil, is extremely brittle and possesses no visible crown or growing point. Every healthy piece, however, will grow, the tiny shoots starting freely from the numerous joints when placed in contact with earth. A few tubers duly inserted in the soil at the dormant period are almost sure to succeed. It is best, however, in general to establish the tubers in pots, and, if purchased, this should decidedly be done. Some Northern firms make a speciality of such plants. Place in permanent situations when growth has started, say, in May or June. In this way the plants quickly become established, and will produce flowers the same season. Any interference with permanent plants must be carried out during the winter season or when growth is dormant, owing



LILIUMS LONGIFLORUM AND SUTCHUENENSE IN A BED OF RHODODENDRONS.

to the brittleness mentioned, when the tubers may be placed in pots or pans and kept in a cool place until they start naturally into growth in the spring months, to be afterwards planted out when growth has become sufficiently advanced.

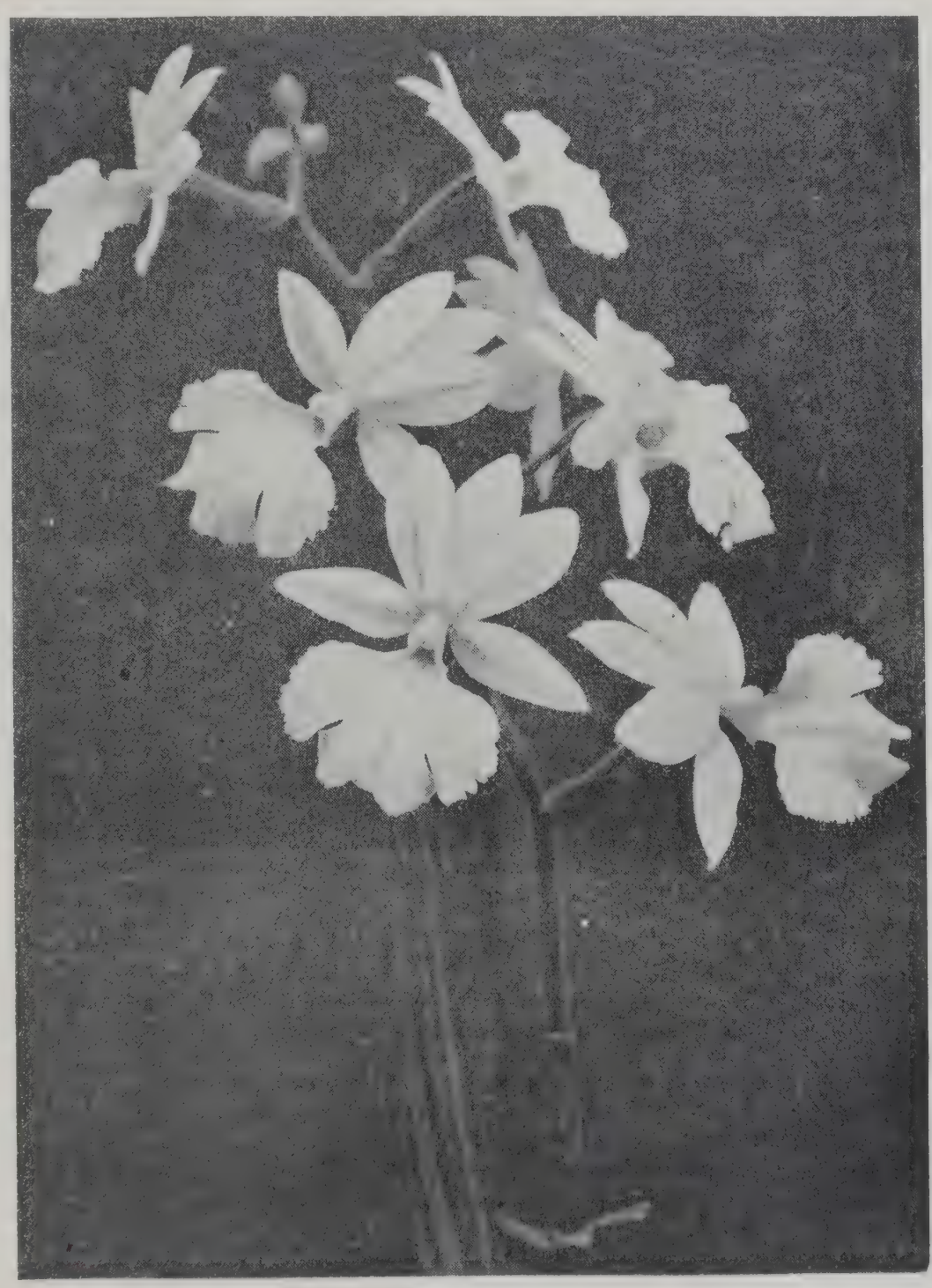
Galloway House, Wigtownshire. JAMES DAY.

SWEET PEA NOTES.

"THE SWEET PEA NOTE-BOOK."—This is a most useful little publication, and one cannot be surprised that it has received a world-wide welcome. The lists of new and old varieties are complete, and the information is reliable. As a book of reference it is invaluable, and the author may congratulate himself on work excellently done. In a brief paragraph alluding to the desirability—it should have been necessity—of duplicate trials by the National Sweet Pea Society, the word "trueing" is used, and I should like to know whether this is English, or whether Mr. Walter P. Wright has taken the liberty, only permitted to authors of renown, to manufacture a word to suit his convenience. One cannot help thinking that Mr. Wright is too severe on the floral committee. It is not the only body that has made mistakes, and if it were reconstructed again to-morrow, there would come blunders in the future. Let the men have a fair chance, Mr. Wright; and if they continue to err, I will assist you in such a keen fight that they will all have to go, and we will have a fresh lot from somewhere. These small points do not mar the value of "The Sweet Pea Note-book," which all growers should have.

NOTES ON VARIETIES.—Before the end of Miss Hemus' novelties could be reached, I had arrived at the end of my available space, and must now return for a moment or two to Upton-on-Severn to make good the omissions. The most interesting of these is a group composed of marbled varieties of what may be called the Helen Pierce section. Of these there are no fewer than seven, and the descriptions furnished by Miss Hemus encourage me to anticipate that they will be of singular charm and particularly welcome to those who admire the artistic refinement of Helen Pierce. In addition to the novelties, Miss Hemus will offer specially reselected and improved forms of all those standard varieties which have made her name so famous in the past, and which will make it still more renowned in the future. At the "National" show one of the most conspicuous Sweet Peas was Afterglow, shown by Mr. Robert Bolton. A magnificent bunch was staged, and one could see it plainly from practically any point in the hall, for the individual flowers were of splendid size and the colour was totally distinct from anything else in the place. A nearer inspection brought trouble, for no two people could be found who agreed as to the correct colour description. From one and another who posed as pure authorities I had notes of half-a-dozen colours, and as I did not know myself and do not know now, I will use Mr. Bolton's words, which are: "The base of the standard is a bright violet blue, shading to a glowing rosy amethyst, wings electric blue." With this I hope that all my readers will be pleased; but if they are not, I promise them that they will be with the Sweet Pea itself, for it is one of the finest of the recent introductions for exhibition, and will certainly be staged on the majority of stands during the next year. Coronation is another of Mr. Bolton's novelties. The standards are apricot, flushed pink, and the wings soft rose pink. Needless to say, it is a Spencer, and one which should meet with appreciation. Dorothy, from the same source, is an immense lilac rose self, while R. F. Felton is said to be "absolutely the finest and the strongest growing lavender yet introduced." I wonder whether it will be as conspicuous at next season's shows as "R. F. F." himself? It is a matter for regret that Messrs. Gilbert and Son will not be able to offer Mrs. B. Gilbert during the forthcoming spring. The reason is that the stock will be much too short to enable a tithe of the demands to be met. It will be remembered as one of the award of merit varieties of the current year. Safrano is a deep cream that closely resembles James Grieve, and Daisy is a new pink on white that is large and of splendid form. Lady Florence Willoughby is the last of this firm's novelties. It is soft cream pink of the largest size, and yet it is perfectly refined.

A. B. ESSEX.



THE NEW WHITE-FLOWERED CALANTHE COOKSONIÆ (*See page* 572.)

LILIES IN THE AMERICAN GARDEN.

THAT hardy kinds of Lilies may be grown in beds between such shrubs as Rhododendrons (including Azaleas) and Kalmias is quite well known. Lilies associate with peat-loving shrubs, with admirable results, and the soil which suits one will generally suit the other. Where Rhododendrons and Lilies are grown together, the Rhododendron is the first to flower, and after its beauty is passed the Lilies render a succession of bloom. Our illustration on page 570 shows Lilies over a groundwork of greenery in mid-July in the American Garden at Kew. The large white flowers in the foreground are those of the well-known Lilium longiflorum. It is an excellent Lily for this mode of cultivation, but owing to its rather dwarf habit it should, naturally, be associated with low-growing shrubs. The taller kind is L. sutchuenense, a new red-flowering species of great promise from China.

GREENHOUSE

SINGLE CHRYSANTHEMUMS.

IT was such a long time since I had been at a Chrysanthemum show that I made up my mind to attend the one at Liverpool this autumn if I possibly could. The evening of November 8 saw my purpose a *fait accompli*. I had once more seen a good provincial up-to-date show. I saw great differences, of course. None was more striking than the place the single varieties occupied. There, side by side with the huge Japanese and incurved, occupying perhaps not quite such a prominent position, were vases of singles, disbudded and grown as single blooms on, I take it, much the same lines as the old mop heads, but with a result infinitely more pleasing and more artistic, although very likely they were not such a supreme test of the cultivator's skill.

I am going to take readers into my confidence and imagine they have paid me "a penny" for my thoughts as I stood before the vase of the handsome pure white Mensa. It was not of Chrysanthemums at all that I was thinking, except in so far as they were "awful examples." It was of the great god of the moderns, "size,"

What an ubiquitous creature he is! Go where you will, he is there also. There he was, to be sure, among these singles, and, alas! at his spoiling tactics as usual. Could anyone honestly say that the largest specimens were as pleasing as those two or three sizes smaller? With very few exceptions indeed I am sure a flower can be too big, and the largest "singles" are perilously near the dividing-line between beauty and coarseness. I liked the disbudded mediums, only not the headless bits of stems which I saw had been carelessly left on so many specimens. For a large dining-table or for room decoration these singles are useful, especially when associated with the pleasing tones of autumn-tinted foliage. The flower-stems should be shortened a little now and again, this will keep the flowers fresh for many days.

I liked, too, the undisbudded plants with their wealth of still smaller flowers. Mary Richardson (biscuit brown) rivalled Ladysmith (pink), and Mrs. H. J. Hampson (buff) and Mrs. E. Roberts (blush pale pink) were not far behind. These with Altrincham Yellow and Stella (white) made a good half-dozen. I would not be without any of them. These are all free and admirably adapted for cutting.

As one-on-a-stem varieties I thought the following all good: Sylvia Slade, garnet red with an effective and distinctive white ring round the disc; Ceddie Mason, deep crimson; Charles Kingsley, a beautiful shade of rich yellow; Leo (particularly effective at a little distance), "coloured" gold centre, shading to a reddish orange at the circumference; Dorothy Dann, gamboge; and Mensa, a large flat white with the edge of the circumference curiously and evenly rounded. "'Mum" people may smile when they read my selections. I give them for what they are worth. They are the ones that an unbiassed ignoramus picked out of all the singles at the Liverpool Show of 1911 as being the ones that most took his fancy.

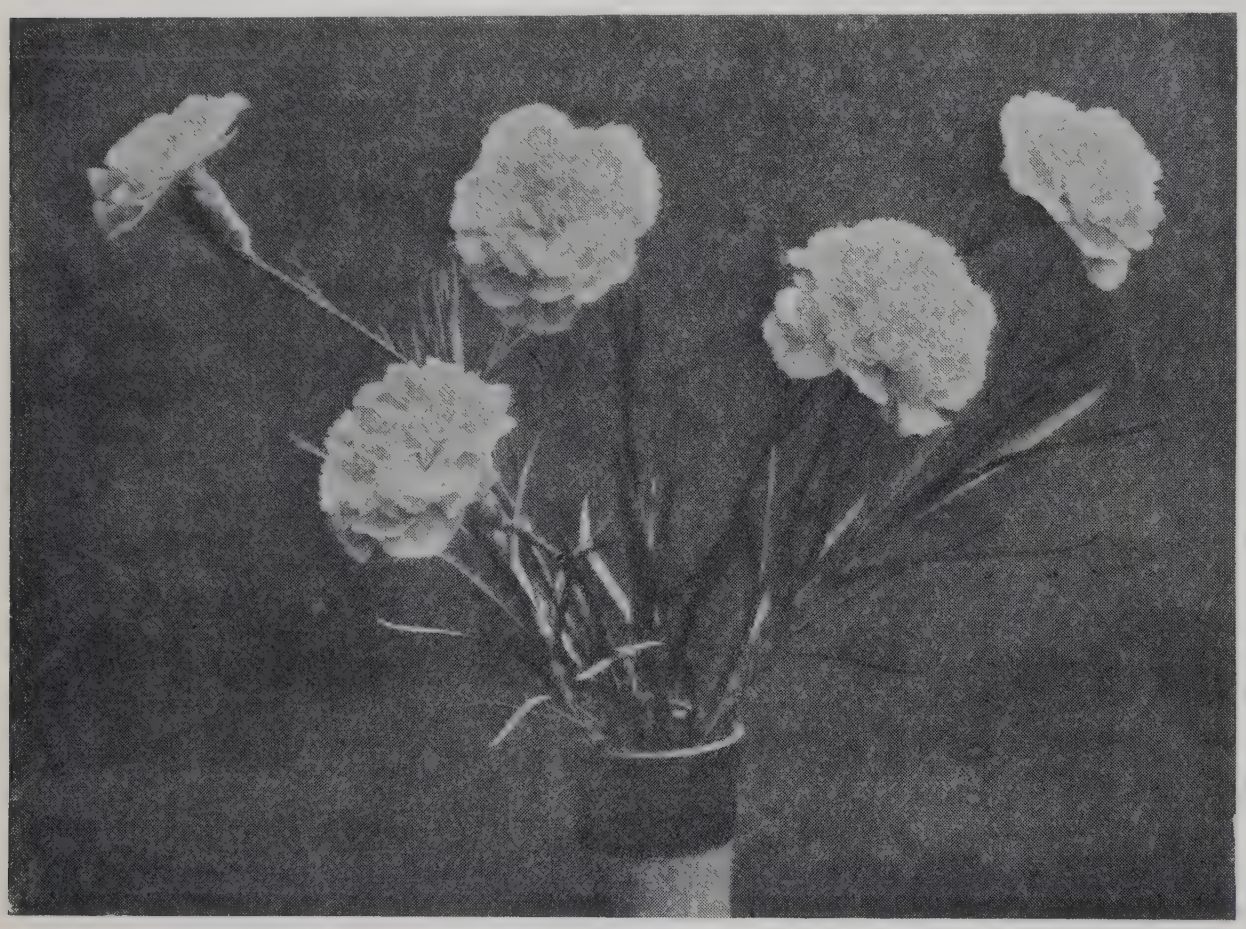
JOSEPH JACOB.

CALANTHE COOKSONIÆ.

A DESCRIPTION of this handsome new Orchid appeared under the heading of "New and Rare Plants" in the last issue of THE GARDEN. Its great beauty lies in its pure and spotless white flowers of unusual size. It is the finest white Calanthe that we ever remember having seen. When shown before the Royal Horticultural Society recently it received a first-class certificate, and created quite a sensation among Orchid enthusiasts.

CARNATION WHITE WONDER.

ON this page we illustrate the new Perpetual-flowering Carnation White Wonder. It was first shown in this country by Messrs. Allwood Brothers in September last, when it received an award of merit from the Royal Horticultural Society. It was then described as a "White Perfection with all the bad points and weaknesses of that well-known variety obliterated," and it appears to be living up to its reputation.



A NEW PERPETUAL-FLOWERING CARNATION: WHITE WONDER.

THE TOWN GARDEN.

BULBOUS PLANTS IN WET PLACES.—One of the most frequent errors in connection with the cultivation of bulbous plants in the open air is that all classes of bulbs delight in a moderately light and well-drained soil; whereas, often enough, the opposites of these are much nearer the truth and, for certain types of bulbs, almost essential. In such matters as these the expert gardener knows quite well that there are bulbous plants suited both to dry and to wet soils, and that, provided the work be done intelligently, a full measure of success should attend such effort. Not so the amateur or beginner, who, regardless of the likes or dislikes of these things, plants them in any available open space, wonders presently at the failure of some and the success of others, and a little later on, as the mystery deepens, forwards a letter of enquiry to the Editor. In such matters, however, it is not always possible to read the "writing on the wall," inasmuch as the inexperience of the amateur will not permit him (or her)—the amateur in gardening is frequently of the feminine order—to differentiate in such things; hence no precise information is forthcoming. Now, as the wet places of the garden are not infrequently the neglected ones also, I purpose, in the following notes, to try to kill two birds with one stone, viz., to remedy the eyesore of the garden and to introduce bulbous plants that are likely to succeed.

SOME GOOD DAFFODILS FOR THE PURPOSE would include Emperor, Empress, Sir Watkin, the May-flowering Poeticus and, by no means least, the double-flowered or Gardenia-scented Narcissus, N. Poeticus flore pleno, which, in ordinary garden soils, is addicted to so-called "blindness." Now this blindness is largely, if not entirely, due to weakness; the weakness the direct result of some deficiency or insufficiency of the food supplies in the previous year. In this particular instance the supplies of moisture are insufficient, and, being so, failure more or less complete results. Nor should we overlook the fact that in the wet, low-lying places of the garden the soils are more inclined to clay, hence more retentive of moisture, the two combined being very much to the liking of the bulbs named. Therefore, if by one stroke we can beautify a hitherto unbeautiful spot, and in so doing embrace success where failure existed before, we are surely doing the right thing. To the Daffodils I have named let me add maximus, princeps, and many varieties of incomparabilis, all of which delight in soils continually cool and moisture-laden. Next to Daffodils the

MOISTURE-LOVING LILIES are the most important from the gardener's point of view. These, however, are not so much at home in the clay soils of the garden, and should be given an addition of peat and well-decayed leaves in equal parts, to which some sand and about a third of well-decayed manure should be added. To grow the Lilies successfully, some excavation of the soil would be necessary, by the removal of the clay a foot deep, substituting loam, peat and leaf-mould in equal parts, and adding the manure and sand as already stated. In such a soil mixture a large number of Lilies would thrive, though the best of the moisture-loving kinds are pardalinum, superbum and canadense, planting the bulbs about 6 inches deep. To make a bed of any size would naturally entail some little outlay; hence we must see what is best to associate with the Lilies.

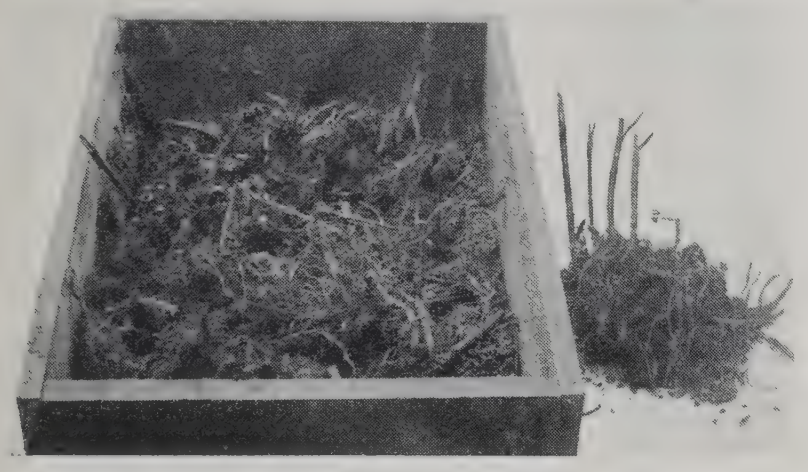
COMPANION PLANTS FOR LILIES.—The Lilies one has in mind delight in moisture and partial shade, so any companion plants selected should be of like inclinations. They should, moreover, flower at a different season, and so help to make such a spot a beautiful and fascinating one for the longest possible period. For such work as this the choice at once falls upon the hardy Primulas, and notably such as P. rosea, P. denticulata in all its forms, and P. Sieboldii. These are not only free-flowering and beautiful, but, for such plants as Lilies, carpeters of the soil and protectors in some small degree. Indeed, it is pleasant to see a combination of this sort, plant springing from plant and flower from flower, the one assisting the other in object and aim, and by their composite graces constituting one beautiful whole.

S. N. N.

GARDENING FOR BEGINNERS.

FORCING MINT FOR WINTER SUPPLIES.

THE common Mint, or Spearmint, is one of the most popular of all our native herbs. There are, in addition to Mentha viridis (common or Spearmint), M. Pulegium (Pennyroyal) and M. piperita (Peppermint). The last-mentioned is used for making the well-known cordial, peppermint, and the Pennyroyal is oftentimes used for flavouring a variety of dishes and puddings. Stalks of green Mint obtainable out of season always have an increased value over the dried article, and to the surprise of the writer, comparatively few persons seem to take the trouble to provide themselves with a supply during the winter and spring months.



1.—METHOD OF ADJUSTING ROOTS OF MINT IN BOXES FOR FORCING. ON THE RIGHT IS A SECTION OF ROOT, AS LIFTED FROM THE BED OUTDOORS.

In a well-appointed garden it is a simple matter to command the services of a forcing-pit or the use of a frame to cover a hot-bed, or there is usually a spare corner of a warm greenhouse where a temperature about fifty degrees to sixty-five degrees can be maintained. If more convenient, large pots or pans may be utilised instead of a box similar to that shown in the illustrations depicted on this page. As a rule, most beds of Mint are able to supply an adequate number of roots for lifting, and the roots for forcing should be lifted during November. It is not necessary to lift a large number of roots to supply the requirements of most homes. A few roots at monthly intervals will answer very well, and this system will ensure the supply of tender young growths almost continuously from the time the first of the forced stalks are ready for gathering. The boxes should have holes burned or made in the bottom for drainage, and the crocks (potsherds) should cover the holes and provide a layer over the whole surface of the bottom of the box, and the same remarks, of course, apply to the pots and pans if they are used for this purpose. The crocks should be covered with decaying leaves, spent manure, siftings of soil, or any litter that will prevent the smaller particles of soil working down into the drainage and clogging it. This done, the box should be half filled with compost of a light, sandy nature, and then the roots may be laid in thickly so that no space shall be lost. Economy in space at this period is almost imperative, as most glass structures are usually fairly crowded. Fig. 1 represents a box well filled with roots of the Spearmint. The roots in the box should be subsequently covered with the prepared compost, pressing the soil fairly firm. None of the roots should be left exposed, and after giving them a good watering in, should any roots be visible above the surface soil, add sufficient compost to cover them satisfactorily. On no account must the soil be permitted to become dry, or the prospects of a satisfactory forcing of the crop will be lessened thereby. The soil should be kept just moist at all times. The result of this care for the well-being of this subject will very soon be apparent, for in a comparatively short time new growths will be found pushing their way through the surface soil, as seen in the box of Mint shown in Fig. 2. Growth is very rapid in a genial temperature, and new shoots such as are seen in the second illustration would be ready for gathering far more quickly than many readers could imagine was possible. Roots that are two or three years old are best for forcing. In gardens where stable manure can be procured, it is a good plan to make up a hot-bed at the turn of the year. It is wise, however, to work in a plentiful supply of leaves with the manure, otherwise the heat may be more than is desirable or necessary. The hot-bed should be covered with about six inches of good soil, and if the roots are planted thickly in this and the frame-lights placed over them, a supply of fresh green Mint will soon be ready, and from this source the supply may be maintained for a considerable time.

D. B. CRANE.

WINTER-FLOWERING PLANTS FOR ROOM DECORATION.

THE plants most suited for growing in a dwelling-house are those that succeed well in a greenhouse, conservatory or frame. If, however, any plants have been forced into flower in a higher temperature than that usually maintained for greenhouse subjects, they must be gradually hardened—that is, they should be retained in a very medium temperature for a few days before they are placed in the house itself. When plants in flower are purchased from nurserymen, a request should be made of the latter to so harden them before delivering. At home the same process must be the rule where plants are taken from the home glass-houses.

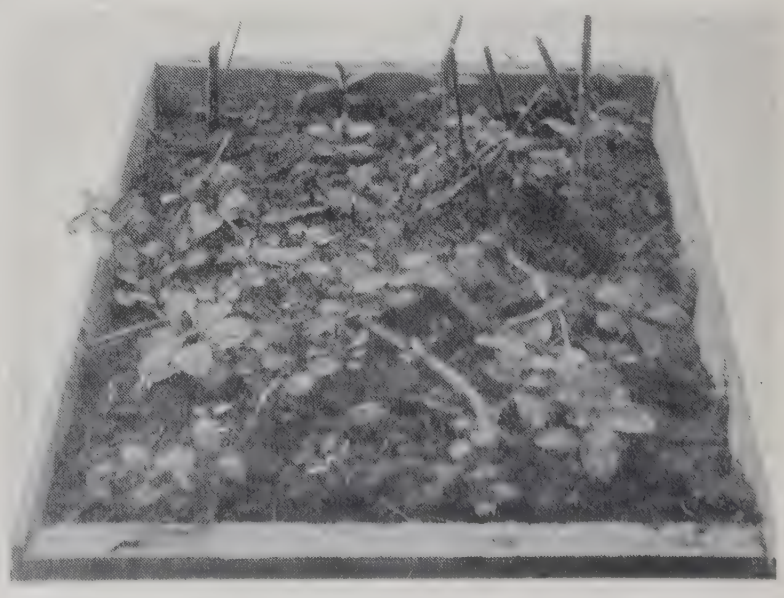
Plants should not be grouped on floors unless they are tall-growing kinds, as cold draughts are very bad for them, and cause the drooping and fading of the flowers more quickly than when a table, bench or wire stand is utilised. Neither must the plants be kept in a direct draught from open windows. The watering of all such specimens must be done with great care and judgment, as over-watering would cause sourness of soil and loss of roots. Lack of water would mean loss of leaves and premature decay of flowers. The pots must not be allowed to remain in water in the saucers. All watering must be done during the forenoon. There is one more important point to note when purchasing or selecting plants for the dwelling-rooms, namely, that they are established plants which have not been quite recently potted, but have already filled their pots with roots. Such specimens usually flower well, and are not soon damaged by an overdose of water. The artificial feeding of plants is not as necessary in the winter as in the summer.

A List of Suitable Plants.—Zonal Pelargoniums must come first, as they always succeed best in a rather dry atmosphere. Then for autumn, and until just after Christmas, we have Chrysanthemums, Salvias and Libonia floribunda. After Christmas, and until the late spring and summer flowering subjects bloom, we have the following to select from: Arum Lilies, Carnations, Cinerarias, Deutzias, Dielytras, Spiræas, Azaleas, Mignonette, Marguerites, Vallota purpurea, Clivias, Acacias and bulbs in variety, the most useful being Roman and named Hyacinths, Tulips, Jonquils and Narcissi. By making a judicious selection the windows may be kept bright at a small cost throughout the winter.

AVON.

ROOTED CUTTINGS OF BEDDING PLANTS.

THE management of rooted cuttings is much more difficult in the winter than during the summer. Many kinds in the summer grow freely and rarely damp off, but in the winter they damp off badly in some cases. It is chiefly a question of watering, but, of course, the three principal points to observe in order to keep the cuttings quite sound and growing slowly are care in watering, ventilating and heating. The more succulent-stemmed the cuttings are, the more liable are they to fail through excessive moisture. So the beginner must not be over-anxious as regards watering.



2.—THE ROOTS ARE COVERED WITH SOIL AND KEPT MOIST; IN A LITTLE WHILE NEW GROWTH IS MADE.

It is much safer to have the soil rather dry than too wet in winter. The atmospheric moisture—which is often excessive, notwithstanding a certain amount of artificial heat—sustains the plants, evaporation is checked, and consequently less water is needed at the roots. When the soil is getting rather dry, the cultivator must give sufficient water to thoroughly soak the whole of the soil through, and then wait patiently until it is in the same condition again before applying more. Now, as regards the best time for watering, the early part of the morning is undoubtedly the proper time, about nine o'clock; then the surplus water has time to dry up before the night comes. The ventilation of a glass structure in which cuttings are growing does most good when given between the hours of nine o'clock in the morning and two o'clock in the afternoon. Fire-heat should be applied, to a certain extent, at the same time, as well as during the night and on dull, wet days. It is harmful to ventilate in frosty, foggy and very rainy weather. SHAMROCK.

THE FRUIT GARDEN.

TRAINING FRUIT TREES IN SMALL GARDENS.

EVERY year I am more and more convinced of the utility of training fruit trees on the cordon system, especially in small gardens. In many villa gardens there is only space to permit of at least two or three large standard trees or those grown as bushes, and these always cast big shadows and render a certain amount of surrounding space almost useless, except for plants that will grow in partial shade. Furthermore, very often a few varieties of Apples and Pears fail to bear nearly every season, and then, when one or two sorts only are grown, there is the likelihood of a barren year as far as these fruits are concerned. If, however, trees are grown as single or double cordons, or as I will explain presently, many specimens may be accommodated in a small area, and a greater variety of them, too.

Single cordons can be grown in many odd corners, and in this form they are always very interesting. Moreover, finer fruits are generally borne on cordons. The other system to which I refer is really the cordon one, but the trees take more of the form of bushes. The base of each cordon branch must rise from the lowest part of the tree, and instead of the cultivator allowing these branches to grow in a natural or untrained way, they should be trained to neat stakes in the first instance. When a few years old they will be strong enough to retain their position without artificial support. Each tree should possess from seven to a dozen cordon branches, and the latter, if well cared for, will be well furnished with fruit spurs and buds from base to top. A well-established tree should resemble the ribs of an umbrella when the latter is half open with the handle uppermost. The whole of the centre of the tree should not, however, be entirely open, as about three cordon-shaped branches may be trained to fill it. One central branch would be sufficient where the trees were small. To get the desired shape, the outer branches should be trained at an angle of 60° and the inner ones at an angle of 72°. The height of the trees may vary from 6 feet to 12 feet. Plenty of sunshine and air will reach all parts of every branch, and the work of summer and winter pruning, gathering of fruits and protection of the latter will be comparatively easy to accomplish. It is advisable to plant all the young trees in good fibrous loam, made very firm, to give them a start. AVON.

BOOKS.

The Royal Horticultural Society's Gardener's Diary.*—We do not quite understand the reasons which prompted the secretary of the Royal Horticultural Society to prepare and publish a pocket diary for gardeners, but evidently he had good ones for doing so. As he states in the preface, the present edition is only an attempt to provide such a diary; but it is, nevertheless, an honest, if not altogether successful, attempt to give gardeners, using the term in its broadest sense, a diary specially adapted for their requirements. In addition to the usual features of an ordinary diary, the one before us contains a great deal of information that gardeners will find most useful, the weekly reminders of work given below each Saturday being, in our opinion, the most serviceable of all. The arrangement of the contents might have been much improved, and the cultural articles and notes relating to manures and other subjects would have been far more useful had some system of arrangement been adopted, or at least an index given. As it is, one experiences a difficulty in turning to any particular subject, unless it is an advertisement, an index of the advertisements being given. It would also facilitate reference to any particular month in such a voluminous, though compact, diary if a thumb index to these pages could be adopted in future issues. This diary can be made a serviceable one, and realising as we do the difficulties encountered in any new undertaking, we shall look forward with interest to future editions of this publication.

Jardinage.—Here is another new candidate for public favour, and those of our readers who are interested in French horticulture will find in it a most artistic and well-got-up publication. The new journal is a monthly one, and the subscription is six francs for those readers outside France. The text and illustrations are really done in very nice style. The articles are by well-known French writers, viz., Messrs. George Truffaut, E. de Gas, Jules Vacherot, P. de Vilmorin, Geo. Bellair, &c. From every point of view the new-comer is attractive, and its outside cover in colour, "Iris Kæmpferi," is by no means the least artistic part of the whole. The office of the new journal is 90bis, Avenue de Paris, Versailles. The editorial department is under the care of our old friend M. George Truffaut, to whom we wish all success in his new undertaking.

Journal of the Paris Chrysanthemum Committee.—We have just received a copy of the new issue of this interesting publication, which for something like fifteen years has been published by the Chrysanthemum committee of the National Horticultural Society of France. The volume for 1911 is quite equal to its predecessors, for it is a large octavo of 170 pages and contains a great deal of literary matter relating to the flower. There are some illustrations also of the Paris Show last year in black and white. The Journal supplied to members of the committee contains, *inter alia*, officers of the committee, members of the floral sub-committee, various notices, annual report of past year's work, revised list of best Chrysanthemums for various purposes, schedule, list of prize-winners at last show, report of show and International conference, with text of papers then read and discussion that ensued, reports of local shows and, finally, list of members composing the committee.

* "The Royal Horticultural Society's Gardener's Diary for 1912." Price 1s., from the Royal Horticultural Society's offices, Vincent Square, Westminster, London, S.W.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Herbaceous border (*S. Malenburg*).—You had better let the stems of your Delphiniums die before cutting them down. If you wish to divide the clumps, you may do so at once. Rings of soot, renewed now and then, would keep the young shoots safe from slugs. Let the soot extend 6 inches or so from the outer parts of the clumps. You may plant Tulips in the same bed with safety Their flowers will be over before the Delphiniums come on, and the bulbs can be lifted as soon as the leaves turn brown. Clara Butt is a very good variety. The sooner the Tulip bulbs are planted the better. Your plants of Choisya ternata may be pruned moderately hard. April is a good time for the work

Daffodils for exhibition (*C. M. G.*).—You have already probably sacrificed a point or two by your late start, since late planting exercises a minimising influence on stature and size of flower alike. A partially-shaded spot is not opposed to success. The difficulty you have to overcome is that of trenching the soil, the tree roots constituting a possible obstruction. You say nothing about whether the soil is light or heavy, which is important. In any case, the soil should be dug not less than 18 inches deep, and well-decayed stable manure freely incorporated with the soil at 8 inches from the surface. Fine bone-meal at the rate of two quarts to every square yard of ground should be freely mixed with the soil at the same level. Failing this latter, employ Wakeley's Hop Manure in the same proportions, forking it in as the work is done.

Garden flowers (*Sagittarius*).—Your selection of Roses in the colours named would do quite well, though you might add William Allen Richardson to the orange and white shades, and La France to those of pink hue. The first-named would be best as a climber. Flowers for cutting, other than those you name, might include Daffodils, Spanish Irises, single Pyrethrums, Alstrœmeria aurea, Flag Irises and Michaelmas Daisies, all of which are hardy and enduring. Sweet Sultans are also excellent, and are delightfully fragrant. Unfortunately, you give us no idea of the size of your garden, or we might have rendered more definite assistance.

Lilium speciosum Melpomene (*E. J. M.*).—The abortive flower-buds—they have not been eaten—are the result of defective root action most usually in the previous year when the bulbs are being built up. The year 1910 was generally unfavourable to the growth of these plants; hence the flowering spikes of this year also are poor and inferior. The bulb of L. auratum platyphyllum is quite useless. The state of things to which

you refer is entirely due to the absence of basal roots, the diminished size of the bulb being traceable to the same cause. See our leading article on Lilies in the issue of August 26 last, which gives some information respecting these plants.

TREES AND SHRUBS.

Buddleias and Chionanthus (*S.*).—Your plants of Buddleia Veitchii and B. magnifica ought to be pruned in February. The best results are obtained by cutting the branches back to within a few inches of the base of last season's wood. After pruning, prick the ground over lightly with a fork and apply a surface dressing of well-decayed farmyard manure. An application of manure-water now and then while the plants are growing vigorously is attended by good results. Your plants of Chionanthus virginica may be transplanted at once; in fact, the sooner the work is done the better. If they are large examples, move them with a ball of earth attached to the roots.

Ivy (*T. G. C.*).—The sections of Ivy stems sent for examination appeared to have been nibbled by mice. There is, however, a bacterial disease which sometimes attacks Ivy. Rough, cankery places occur on the stem and the leaves turn brown in patches, particularly on the upper side, and eventually break away into holes. Should your leaves be like this, we advise you to remove and burn affected branches. It may, however, be that mice are responsible for the damage. This might be ascertained by laying traps in the vicinity of the damaged parts.

Eucalyptus trees (*C. V. F.*).—You may safely reduce your Eucalyptus trees in height, and you can shorten the side branches also if you wish. After the work has been accomplished, however, be sure that you coat all the wounds with gas-tar, otherwise it is probable that fungus spores will find an entrance and your trees may be seriously injured or perhaps destroyed. The best time for the work would be when the new growth commences next year, though if you wish to do the work at once there is no reason why you should not do so.

ROSE GARDEN.

Protecting newly-planted Roses (*A. W. J.*).—Do not cover the beds with farmyard manure. This is a very bad practice, as the manure keeps the roots cold and wet, and the action of the frozen manure around the base of the plants is very harmful. The better plan is to put some small heaps of burnt earth, ashes or fine soil around each plant, something like earthing-up Potatoes, and allow this to remain until pruning-time. Dry Bracken or Gorse stuck in among the plants is all right, and makes a good lodgment for the snow, but it is well to remove this in mild intervals. Even if the tops of Roses are frosted, the base of the plants below the covering material will be sound, and as it is best to hard prune newly-planted Roses, you will find them come along all right.

Roses as isolated bushes (*M. C. L.*).—This is an excellent method to adopt with a large number of the strong-growing Roses, and it is extremely picturesque when well done. They need, of course, good soil preparation, in order that they may grow freely, and should, as far as possible, be free from shade. There is no training needful or staking required. Just plant the bush and prune it back to about two feet the first season. As the Roses grow they will bend outward, and blooms will appear in the bent branches, while new roots will start up from the base, which in course of time bend outward also. As the plants age you can remove a branch or two annually of those mostly worn out. Zepherin Drouhin is fine when grown in this way, and it is one of the best. Other good sorts would be Grüss an Teplitz, W. A. Richardson, François Crousse, Conrad F. Meyer, Nova Zembla, Blush Rambler, Perpetual Crimson Rambler, Trier, Lady Waterlow, Una, Dawn and a host of others.

Roses for new beds (*R. F.*).—A good rose pink variety would be Mme. Jules Grolez. It is one of the most beautiful, and is a shade or two deeper than Lady Ashtown. Both are good Roses. A good pale colour would be Pharisaer. It is a lovely Rose, and so also is Prince de Bulgarie. A fine cream sort, for autumn especially, is Peace.

Roses attacked by black spot (*E. C.*).—Conrad F. Meyer is badly addicted to this fungoid disease, but we should not advise you to root out the plants. Clear away fallen leaves and burn them, also burn the surface soil. Next season spray early and often with Bordeaux mixture or Cupram. Although the fungus sadly disfigures Roses, we have not found it to cause any very serious damage. Do not prune Electra. It will bloom better for the neglect. In the case of Tausendschön, very little pruning is required. Any lateral shoots may be cut back to three or four eyes in spring.

MISCELLANEOUS.

Mushroom spawn and spores (*G. T. and P. A. R.*).—The mode of producing Mushroom spawn in pure culture, as adopted in France, is a secret, so far as we are aware, the published accounts of the process giving insufficient data upon which to proceed. A method has been devised in America, however, which seems to give excellent results, although it is not perhaps one which can well be used by the inexperienced in fungus cultivation. It is fully described in Bulletin No. 85 of the United States Department of Agriculture, and the following is a summary of the method: Wide-mouthed test tubes or bottles are obtained and carefully cleaned and sterilised by dry heat. They are then filled about two-thirds with manure of half-decayed leaves, and the mouth plugged with cotton-wool. They are then again sterilised, by steam this time, being either on three or four successive days exposed to live steam or under pressure for about half-an-hour at a temperature of about 150° Cent. A desirable form of Mushroom is then selected, and with a sterilised knife (taking the plant as young as possible) small pieces of the internal tissue of the Mushroom are transferred to the sterilised manure in the bottle, taking extreme care that nothing is touched in the passage. It is well also to thoroughly wash the parent plant with recently-boiled water before cutting it. The tubes are then replugged and allowed to stand in a warm place for some days, when, if the work has been done with care, there will be seen a slight growth from the tissue placed in the tube. This in the course of three weeks will permeate the whole of the culture medium, and may then be used for spawning bricks made in the usual way. The only mode of obtaining the germination of spores of Mushrooms derived from the gills, and easily collected by placing a Mushroom cap downwards on a piece of paper, taking all care to keep it free from contamination with dirt and dust from outside sources, is to place these spores in suitable media, *e.g.*, the sterilised manure mentioned above, and with them a small piece of the Mushroom mycelium itself. The various precautions to be taken to keep the culture pure, &c., are so exacting, however, that, except for the expert in such matters, it is almost useless to try to obtain spawn by this method.

Apples diseased (*Miss C. C.*).—The Apples are attacked by the disease known as scab. The shoots that show any scabby spots should be removed and burnt, and the trees sprayed just before the buds burst, and again after the petals have fallen, with Bordeaux mixture at half the strength generally used for spraying Potatoes.

Making a lawn (*E. F. B.*).—You had better dig the manure into the ground intended for your lawn at once; then let it lie until February. During dry weather put pegs in the ground by means of a spirit-level and straight-edge to the height of the surface of the soil; then tread the ground well in both directions and make up any inequalities. To do this start from one point and level the ground, removing the pegs as they are done with. In March rake the ground over, sow the seed, and rake it in without putting any other dressing in the ground. Obtain good seed from a reliable seedsman; then you will get it free from weed seeds. Your soil is bound to contain some weed seeds; consequently you will have to weed the young grass during summer. Keep the lawn well mown and rolled in order to procure a firm playing surface. A dressing of sea sand in twelve months' time will do good. Be sure that you tread the ground thoroughly to prevent sinkage, and make it perfectly level before sowing the seed.

Physalis Franchetii for jam-making (*Lima*).—We have had no experience of Physalis Franchetii fruits being used for jam, but it is possible that they could be used for the purpose, for an allied species, P. Alkekengi, is said to bear edible fruit. The fruits of P. peruviana are known as Cape Gooseberries, and used regularly in tropical countries for culinary purposes.

Soil analysis (*D. G.*).—We do not undertake analysis of soil, but Fellows of the Royal Horticultural Society may have their soils analysed at a reduced fee by the society's analyst, 22, Tudor Street, New Bridge Street, E.C. Your soil, we find, lacks "body" and lime. Every effort should be made to make it more holding, and lime (chalk preferably, since the soil is light) should be added this autumn.

Worm destroyer (*Agnostic*).—It is probable that you could prepare a worm-destroying agent more cheaply than if you procured one ready mixed. In F. Pilkington Sargent's pamphlet on "Horticultural Preparations" the following are recommended: Acid worm destroyer—Mercuric chloride, 10.00; hydrochloric acid, 5.00; water to 100.00. Neutral worm destroyer—Mercuric chloride, 10.00; ammonium chloride, 20.00; water to 100.00. One pint of either of these should be diluted to two gallons and sprinkled over the affected area. The application should take place on the evening of a damp day, but not when the ground is saturated with moisture. The solutions should not be stored in metallic containers, though an ordinary watering-can may be used for the application. All vessels should be thoroughly rinsed with water immediately after use. Worms should be collected and burnt, or buried deep as soon as dead. These are the recommendations which accompany the descriptions of the mixtures in the above-mentioned work.

Various questions (*S. D.*).—(*a*) After the old Raspberry canes are thinned out it is better to tie the young ones to the wires at once. (*b*) Gloxinia tubers should be kept quite dry during the winter. If placed under the stage, it is very essential that they are out of the way of drip. As in the case of Begonias, the pots may be laid on their sides, or, in order to economise space, they can, when absolutely dormant, be taken out of the pots, shaken clear of the old soil and laid thickly together in shallow boxes of dry, sandy compost. They should be stored in a temperature of from 45° to 55°. (*c*) It is a strange time of the year to purchase Cyclamen tubers in the condition yours are, as the plants should be established in pots and approaching the flowering stage. All that you can do is to pot them at once in a mixture of leaf-mould, loam and sand, place them in a light position in the greenhouse, and water moderately in order to encourage immediate root action. If the Watsonias are good, strong corms, a suitable plan is to put three in a pot 6 inches in diameter and place them in the greenhouse, where they will be just safe from frost. In potting, the corm should be buried beneath the soil, although the extreme tip may appear just above the surface. (*d*) Lilium longiflorum may be stood out of doors till the stems die down, which will quickly happen now. As soon as this occurs they may be repotted and placed in a cold frame for the winter, protecting them during very severe weather and giving air when the weather is mild. (*e*) The twigs, if fairly dense, should be sufficient protection for the Sweet Peas during the winter. (*f*) The Pea Pilot is quite as good as the other for sowing in autumn, and its superior flavour gives it an advantage.

Names of fruit.—*F. W. B.*—Scarlet Nonpareil.——*G. H. Turner.*—1, Fearn's Pippin; 2, Barnack Beauty.——*Mrs. C. A. Boles.*—The Queen.

Names of plants.—*A. F. B.*—Ruellia Portellæ.——*C. Trevor.*—Cotoneaster frigida.——*J. D.*—Chlorophytum elatum variegatum. Temperature, 45° to 50°; propagate by division.——*Lancs.*—Datura Stramonium, a native of Great Britain.

LEGAL POINT.

Overhanging branches (*W. B. B.*).—"The sprout savours of the root," as was quaintly remarked by a certain equity judge. Therefore, where the roots and trunk are situate in A's land, although the branches chiefly overhang that of B, the ownership in the tree is vested in A. Consequently, although B is entitled to exercise the extra-judicial remedy of abatement in accordance with the principles laid down in Lemmon *v.* Webb and to cut off the branches which overhang his land, yet the property in the branches lopped off still remains in A. There is no need for B to give A notice if he can cut away the offending branches by operating vertically on his own

premises. If the object cannot be efficaciously accomplished without entry on his neighbour's premises, B should first give A notice to abate the nuisance, and it should be further remembered that when the party aggrieved operates on his own premises, the slightest movement beyond the boundary over his neighbour's land, would technically amount to a trespass, unless justified by his neighbour's failure to abate the nuisance after notice. If the tree so treated happened to die, B would not be liable if he kept within his rights as above described; but if he overstepped the boundary and used his chopper on the neighbour's side of the partition wall without giving his neighbour the opportunity of remedying the nuisance, or if he happened to lop off any branches which did not overshadow his land, he would be liable for his trespass, and the death of the tree might be attributed to such trespass.—BARRISTER.

THE EDITOR'S TABLE.

METROSIDEROS FLORIBUNDA FROM TUNBRIDGE WELLS.

An anonymous correspondent sent us from Tunbridge Wells on the 16th inst. beautiful flowering sprays of this shrub with the following letter: "I send you by post to-day a small contribution for your table in the shape of some blossoms of Metrosideros, which is blooming with us out of doors for the second time this year. The plant has lived out of doors for several years. It gets very badly cut by the frost and cold winds in the winter, but the hot summer this year seems to have suited it. We protect it with boughs during the hard weather and pieces of coke round the roots. The only mulching it gets is leaf-mould. I had to pack the flowers in a great hurry, so fear they may be faded by the time they reach you."

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY OF PERTHSHIRE.

THE closing excursion of the members of this society was held on Saturday, November 11, when Keir, the residence of Captain Stirling, near Dunblane, was visited. The primary object was to see the fine collection of Chrysanthemums, for which, in the capable hands of Mr. Lunt, Keir has for many years been famous. Arriving at the gardens the members were met by Mr. Lunt and conducted by him through the extensive range of glass-houses. The Chrysanthemums, which were in prime condition, met with universal admiration from all on account of their massive, well-developed blooms and the beautiful freshness of their colours. From such a galaxy of beauty it was almost impossible to make a selection, so equal in point of merit did they all seem. Although exhibition blooms are grown in large quantities, those for cutting for house decoration are by no means neglected, and quantities of bush plants were also in evidence.

The other departments revealed a wealth of beautiful and interesting plants. Two large trees of Brugmansia arborea laden with beautiful white, bell-shaped flowers were greatly admired. One house was filled with Gloire de Lorraine Begonias, splendid plants just coming into flower, both the pink and white varieties. Winter-fruiting Tomatoes and French Beans shared another house, promising ample supplies to the culinary department. Specimen plants, for which Keir was once famed, have in recent years given place to smaller plants more useful for house decoration. Quantities of these are now grown, Dracæna Sanderæ being an especial favourite. Palms, too, as may be expected, are largely in evidence, as are also Ferns. Some fine large specimens of Davallias and Adiantums graced the stages in the fernery, while numerous plants of Nephrolepis todeaoides, in suitable sizes for housework, were met with. Occupying shelves in several of the houses, we noted splendid batches of Cyclamen crowded with coming flowers, and also Streptocarpi showing a wide range of beautiful colours. That useful spring-flowering Begonia Gloire de Sceaux is also largely cultivated at Keir, as is also Coleus thyrsoideus.

Growing in the Melon-house were a number of Calanthes Veitchii and vestita in variety pushing up strong flower-spikes, such as we have not seen for many years. Melons were just over, only two or three fine fruits remaining as samples of what had been. In the frames we observed large batches of Cinerarias, Schizanthus and Godetias for spring flowering. Poinsettias, dwarf, sturdy plants, were noted occupying a heated pit, while quantities of bulbs just starting into growth were also observed. Tomatoes were grown in frames during the summer, and the last of their fruits were just ripening. The crop, we were told, had been a very heavy one.

Mr. Lunt thereafter conducted the party through the extensive pleasure grounds, where much of absorbing interest was seen. Although the recent storm had left its mark everywhere, levelling some giants and stripping huge limbs from others, there were many magnificent specimens left to admire. Numbers of Wellingtonias were growing in various parts, and Mr. Lunt called the attention of the party to the difference in the habit and growth of the trees. Some had been raised from seeds and some from cuttings, the former method producing by far the more handsome specimens. Bamboos, chiefly Bambusa Mêtake and B. gracilis, were freely planted several years ago, and are now very effective. One part has been recently planted with shrubs calculated to give autumnal effects with foliage and fruit, and this has already proved a beautiful and interesting spot. Michaelmas Daisies are also prime favourites, and are represented by the finest collection in Scotland. The plants occupy a whole garden to themselves, and when in bloom make a magnificent show. A neat little rock garden came in for a share of attention, being replete with a fine collection of very choice alpine plants. Wall gardening, too, has not been neglected, and recently a wall was built with openings, or pockets, in which to accommodate a number of plants. These have already established themselves and are thriving luxuriantly.

EDINBURGH CHRYSANTHEMUM SHOW.

NOVEMBER 16, 17 AND 18.

THE annual Chrysanthemum show of the Scottish Horticultural Association was held in the Waverley Market, Edinburgh, on the above dates. There was a slight reduction in the number of both trade and competitive exhibits, but the quality was very high, and the great hall presented a brilliant sight with its magnificent display of flowers, fruit and vegetables. The show was formally opened by the Rev. Dr. Kelman, who gave an eloquent address in praise of gardening.

As already indicated, there was some reduction in the trade exhibits, but the quality of those on view was, in many cases, of a very high order. One of the finest and most valuable to Chrysanthemum-growers was the stand of Messrs. W. Wells and Co., Limited, Merstham, arranged in a very striking and effective manner, and including many novelties and flowers of recognised merit in single and double Chrysanthemums. Among the former we observed Honeysuckle, Josephine, Polly Duncan, Mrs. W. Parker, Mrs. A. Waller, Mensa and Purity, with many more. Among the doubles some magnificent blooms of the white Mrs. Gilbert Drabble were shown; one of these was 31 inches in circumference. A gold medal was awarded.

Messrs. Dicksons and Co., Edinburgh, sent a well-arranged bank of single and double Chrysanthemums and other flowers in great variety. Among the Chrysanthemums were Mrs. R. C. Pullar, Altrincham Yellow, Caledonia, Florrie Stevens and many others. A group of the charming little Orleans Rose in pots blooming for the third time this year was also shown. Silver-gilt medal.

Messrs. Storrie and Storrie, Glencarse Nurseries, Perthshire, sent a large display of Scottish-grown Apples from their nurseries in the Carse of Gowrie. These were superb and in great variety. They also showed fine Celosias in 4-inch pots, Cinerarias, Cyclamen, Primulas, &c. A gold medal was awarded to this effective exhibit.

Messrs. Sutton and Sons, Reading, also received a gold medal for one of their marvellously fine exhibits of vegetables in great variety and of the highest types.

Messrs. Young and Co., Cheltenham, showed a large variety of Carnations of the most modern varieties and excellently grown. Silver-gilt medal.

Messrs. W. Cutbush and Sons, Highgate Nurseries, London, exhibited Carnations also. These were very fine and made a good display. Silver-gilt medal.

Dr. John MacWatt, Morelands, Duns, set up a beautifully-arranged and very effective stand of Primulas. These included a number rarely seen in Edinburgh, besides those more familiar, but shown in improved varieties. Very fine forms of P. obconica, including a pale blue one, were much admired. The exhibit also included nice groups of P. malacoides, P. Forbesii, P. F. rubra, P. Palinuri, P. Poissonii, P. floribunda, P. decora alba and a large number of others, such as blue Polyanthuses and P. verticillata. A silver medal was awarded.

Messrs. Dobbie and Co., Edinburgh, at the last moment took the place of an absent exhibitor, and showed a number of good single and double Chrysanthemums. Bronze medal.

John Forbes, Hawick, Limited, sent perennial Asters, Carnations, a few hardy flowers, Antirrhinums, &c. Bronze medal.

Messrs. W. Brown and Sons, Edinburgh, contributed a magnificent display of fruit, and were awarded a gold medal for this, one of the finest exhibits of its kind ever shown in Edinburgh.

Mr. D. M'Leod, Chorlton-cum-Hardy, Manchester, exhibited a number of choice Orchids, including Cypripediums, Lælias, Cattleyas, &c. Silver medal.

In the competitive classes, although several competitors who usually enter the lists here were absent, the competition was, as a whole, excellent and keen. Though the popular taste for large Chrysanthemum blooms seems on the wane in Scotland, the Japanese were remarkably good though perhaps rather fewer, and good judges expressed the opinion that they were finer than ever.

The class which created the greatest interest was that for the City of Edinburgh prizes, the first of which was a handsome cup and £12 in money. There was a good entry, and, after careful judging, the trophy was awarded to Captain Stirling, Keir (gardener, Mr. T. Lunt), who again showed high cultural skill and secured 156 out of a possible 180 points. His fifteen vases contained three blooms of each of the following varieties, the numbers following each being the points awarded out of a possible 12: Hon. Mrs. Lopes, 10½; E. Jameson, 10; Mrs. L. Thorn, 10½; Mrs. Pearson, 10; F. S. Vallis, 10½; R. Vallis, 10; Mrs. A. T. Miller; D. B. Crane, 10½; George Hemming, 10; Purity, 11; Lady E. Letchworth, 10; White Venosta, 9½; Bessie Godfrey, 10½; Mrs. F. W. Vallis, 10½; and White Queen (very fine), 11½. The second went to Mr. J. Jameson, St. Marnocks, County Dublin (gardener, Mr. J. Mackellar), with a good stand, though a little the worse for their long journey. One hundred and forty and a-half points were awarded, the best flowers being Frances Jolliffe, Lady Conyers and D. B. Crane. Third, Sir J. Sivewright, Tulliallan Castle (gardener, Mr. G. Stewart); fourth, Mr. D. Thomson Greenfield, Alloa (gardener, Mr. L. M'Lean).

The Scottish Challenge Cup competition brought out a good entry and splendid flowers. The first-prize vases were shown by Mr. W. Ramsay, Bowland (gardener, Mr. R. Honeymour), and these included the best bloom in the show—Mary Poulton. Eighty-nine points out of ninety-six were given. Second, Mr. J. G. Thomson, Norwood (gardener, Mr. James Small); third, Mr. J. E. B. Baillie, Dochfour (gardener, Mr. R. Mackenzie); fourth, Mr. A. R. Brown, Summerhill, Shandon. For twelve blooms of Japanese, open to all, Captain Stirling again led; and for six vases, open to private gardeners and amateurs, Mr. Ramsay, Bowland, led. Other leading exhibitors with cut Chrysanthemum blooms included Mr. W. H. Dobie, Dollarbeg; the Earl of Wemyss, Gosford; Lord Elphinstone, Carberry Tower; Mr. C. W. Cowan, Dalhousie Castle; Mr. J. Stewart, jun., Woodend Cottage, Alloa; and Mr. A. Brydon, Tweedbank. Lord Stratheden and Campbell, Hartrigge, had the best winter-flowering Carnations, which were very good indeed.

Bouquets and floral designs generally brought out a good entry, but space will not permit of much detail. The best basket of Orchids arranged for effect came from Mr. W. Mackay, Ascog, Bute. Miss M. M'Lachlan, Gracemount, Liberton, had the best epergne of Chrysanthemums.

Chrysanthemum plants were excellent and the competition was close. Mr. D. R. W. Huie, Hollywood, Edinburgh, was first for six; Lady Steel, Edinburgh, for four, two and one; and Mr. R. Jenner, Stirling, for singles.

Other plants were generally well shown, and Palms, winter-flowering Begonias, Salvias, Primulas, Lily of the Valley, Cyclamen, and table and other foliage plants were numerous and good. The leading winners were Sir John Gilmour, Montrave; the Earl of Home, Douglas Castle; Sir William Younger, Auchencastle; Mrs. Aikman, West Colinton House; the Hon. Mrs. Baillie Hamilton; and Mrs. Wauchope, Niddrie.

Fruit was very fine, especially Grapes and Apples. For the best eight dishes, Lord Elphinstone, Carberry Tower (gardener, Mr. D. Kidd), was first; the Earl of Wemyss, Gosford (gardener, Mr. Galloway), being second. Mr. C. W. Cowan, Dalhousie Castle (gardener, Mr. Pirie), was first, and other leading winners with Grapes were Colonel Stewart Mackenzie, Seaforth Castle; Mr. W. Mackay, Major Thorburn, Lord Elphinstone and Mr. J. E. Laidlay, Invereil.

Colonel Gordon, Threave, was first for eighteen dishes of Scottish-grown Apples and for eighteen varieties, four of each. Other winners with fruit included the Earl of Wemyss, the Rev. G. H. Davenport and the Marquis of Lansdowne, Meikleour.

Vegetables were magnificent, as a whole, though we have seen Celery better. Brussels Sprouts, Carrots, Leeks and Onions were very fine. Lord Lauderdale, Thirlestane (gardener, Mr. Stewart), had the best collection; second, Mr. H. Munzall, Gattonside House.

There were several classes confined to market-gardeners alone, and these were generally well contested. In the class for six vases of Chrysanthemums, three single and three double, however, there was no competition, Mr. J. Bruce, Springfield, Davidson's Mains, being the only exhibitor and receiving the first prize for good flowers.

For three baskets of dessert Apples in three varieties, the first prize went to England, the winner being Mr. J. Harris, Silcoe, Ampthill, Beds; second, Mr. R. G. Sinclair, Congalton, Drem; third, Mr. D. Logan, Coldstream. In a similar class for culinary Apples, Mr. J. M'Kenzie, Lochend, Dunbar, was first; Mr. Sinclair second; and Mr. Harris third.

There was a keen struggle among Edinburgh market-gardeners for the prizes for twelve bunches of Leeks, fourteen in a bunch, as grown for market, and the most careful judging was necessary. Mr. W. Douglas, Easter Duddingston, was first, followed closely by Mr. J. Douglas, Shadepark, Dalkeith, and Mr. W. Gilchrist, Middle Mills, Lasswade.

There was a large entry in the class for decorated dinner-tables, and the competition was close, some beautifully-decorated tables being shown. Carnations and Roses appeared to be the favourite flowers with the exhibitors, and the first prize was awarded to A. S. Henderson, Esq., Seathwood, Dundee (gardener, Mr. Scott), for a table decorated with pale pink Carnations. The flowers were good, but there was some criticism of the award, on the ground that the flowers would be ineffective in artificial light. The effect in daylight was, however, very good. The second prize went to Miss M. E. Burton, New Saughton Hall, for a table charmingly decorated with Roses.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

OLD-FASHIONED GREENHOUSE PLANTS

THE advent of the modern heating apparatus has possibly done more than anything else in banishing many beautiful and interesting plants from our greenhouses and conservatories which were popular a couple of generations ago. Many of those plants were natives of Australia, New Zealand and South Africa, with a sprinkling of Himalayan species, and classes for Cape Heaths and New Holland plants were always notable features in exhibitions, while the successful cultivation of a collection was considered to be the crowning point of a gardener's skill.

These plants were, however, usually of slow growth, requiring very little fire-heat and needing careful watering. They were very beautiful when at their best, but almost hopeless when ill-health overtook them. Improved methods of heating, together with the introduction of fast-growing, soft-wooded plants which required a moderately high temperature at certain times to bring them to perfection, with a limited amount of greenhouse space led to attempts being made to cultivate the two kinds of plants together, with the result that the fast-growing, more easily-cultivated plants gradually displaced the older introductions. A quarter of a century ago collections existed here and there about the country, and it is still possible to find some of the old plants, but the greater number has gone. Some could be obtained again from their native countries, but it is probable that numbers of the rarer kinds have been lost.

Whether an attempt ever will be made to popularise these plants again is uncertain; but there is a great deal to be said in favour of so doing, and at least steps ought to be taken to safeguard those species which are yet to be found in the country. The training of the modern gardener is really against the successful cultivation of many of these so-called "hard-wooded plants," for he deals so largely with soft, quick-growing subjects, which stand copious waterings without injury, that he is apt to unthinkingly overwater delicate rooting plants. One old grower of my acquaintance used to allow his plants to go unwatered for weeks together in the winter-time, but they stood on a cool, moist ash stage; the house was ventilated night and day, and artificial heat was not applied until the thermometer fell to 33°; then the temperature was never allowed to rise above 35° with fire-heat. Under these conditions he was wonderfully successful with the various forms of Correa, Eriostemon, Crowea, Boronia, Epacris, Aotus, Erica, Acacia, Hovea, Grevillea, Eutaxia, Aphelexis and Phænocoma.

The last-named plant is one which is now rarely met with, though its silvery stems and curious little leaves, together with its large, handsome, red, everlasting flowers, make it very attractive. Protea, the curious but interesting South African genus, is another which has been almost lost sight of. True, one or two of the stronger-growing kinds are sometimes met with, but the choice and showy sorts of which one finds pictures in old horticultural books are no more. Cape Ericas, again, used to be represented by a great many showy species and varieties, of which exhibition plants 2 feet to 3 feet across were common. Now, a comparatively few kinds are cultivated, and those only as small plants. Many choice sorts are doubtless lost. The charming blue-flowered Leschenaultia biloba major formerly occupied a place of honour among greenhouse plants, and up to ten years ago it was possible to procure plants, for Messrs. Balchin made a speciality of it, but it is rarely, if ever, seen now. This will in the near future most likely go the way of many other beautiful plants, if it has not already done so.

Epacris are still grown to a fair extent, though it is to be feared that their culture is but imperfectly understood by gardeners in general, and we have to rely to a great extent on nurserymen who specialise in them for their being kept in cultivation. Australian Acacias have not suffered to the extent that some other plants have, for a wide selection of the more showy kinds may still be obtained. If people would only recognise what superior results are to be obtained from vigorous young plants than from stunted specimens, however, they would be more widely grown than at present. Boronias, likewise, are sometimes seen in good condition, but their cultivation is a mystery to many gardeners, and it is a comparatively small number who thoroughly understand their requirements. Correas, Pimelas and Eriostemons may be obtained, but it is with them as with Epacris and

Boronia, very few people thoroughly understand their wants. Grevillea offers many lovely species which are seldom met with outside botanic gardens, though occasionally in Southern gardens good examples are met with out of doors. Eriostemon and the allied genus Crowea present a number of very beautiful white and pink flowered plants, which, when seen in good condition, always command attention. They are, however, rare in private gardens. The several fragrant-flowered Rhododendrons from the Himalaya, of which Edgeworthii, formosum and veitchianum are examples, are typical of a race of lovely greenhouse plants which well repay attention, yet really good collections are far from common.

One might go on indefinitely instancing these neglected plants, but enough has been said to direct attention to the many beautiful subjects which have disappeared or are fast disappearing from our gardens. L. P.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 4. — National Chrysanthemum Society's Floral Committee Meeting at Essex Hall; Mansfield Horticultural Society's Meeting.

December 5.—Royal Horticultural Society's Exhibition and Meeting at Vincent Square, Westminster, S.W. Lecture at three o'clock on "Motile Organs of Plants," by Professor J. B. Farmer, D.Sc., F.R.S. Perpetual Flowering Carnation Society's Exhibition at the Royal Botanic Gardens, Regent's Park (two days); Stirling Horticultural Association's Meeting.

December 7.—National Rose Society's Annual General Meeting at Westminster Palace Hotel, Victoria Street, Westminster, S.W.

December 8.—National Sweet Pea Society's Annual General Meeting at the Hotel Windsor, Victoria Street, Westminster, at 2 p.m.

Figs in pots.— At the meeting of the Council of the Royal Horticultural Society held on the 21st ult., the secretary drew attention to the marvellous exhibit of Fig trees made by Mr. James Hudson, V.M.H., at the last lecture, which was confirmed by the president and several of the members; and it was proposed by the president, seconded by Sir Albert Rollit, D.L., and carried unanimously, that a Lindley medal for cultivation be awarded to Mr. Hudson.

Daffodil show for London in 1912.— In the spring of 1911, as so many Daffodil-lovers expressed a wish that a two days' exhibition of Daffodils might be held in London in mid-April, the Royal Horticultural Society's Narcissus committee approached the Council of the society upon the matter. The Council favoured the movement, and the committee then appointed Mr. E. A. Bowles, Mr. P. R. Barr, Mr. W. B. Cranfield, the Rev. G. H. Engleheart, Mr. Robert Sydenham, Mr. Walter T. Ware and Mr. C. H. Curtis to prepare a schedule for the exhibition and consider ways and means. A schedule has been prepared and approved, and is now ready. The Council of the Royal Horticultural Society have promised to give the cups and medals offered as prizes, but the cash prizes must be provided by Daffodil-lovers. The committee have made themselves responsible to the Council for these cash awards, and now confidently appeal to all interested in Daffodil culture for generous support. All donations to the prize fund should be sent to the treasurer, Mr. Walter T. Ware, Inglescombe Nurseries, Bath. Copies of the schedule can be obtained from Mr. C. H. Curtis, Adelaide Road, Brentford.

Perpetual Flowering Carnation Society.—From our advertisement columns it will be seen that the dates of the exhibition to be held at the Royal Botanic Gardens in connection with the above society are December 5 and 6. As this comes in "Smithfield Week," when many special trains are run to London at reduced rates, those living in the provinces will have special opportunities of seeing the show. Special note should be made of the new and unique class for amateurs, which allows those residing fifty miles and upwards from London to send their blooms and the society undertakes to stage them.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Grapes ripening outdoors. — Having read with interest your correspondent's article on outdoor Grapes grown at Shepherd's Bush in your issue for November 11, I venture to give you a few details of a Vine growing on my cottage here. The variety is Reine Olga, and was supplied to me by Mr. Will Taylor of Hampton. It carried over twenty bunches of nice-sized Grapes, and one bunch was extra large, turning the scale at 2lb. 7oz., which, considering it was not thinned or fed in any way, and facing as it does due west, clearly shows what a good summer such as that of 1911 can do for our outdoor Vines.—H. JACKSON, *Effingham, Surrey.*

Plants for dry positions.— With regard to the valuable notes in THE GARDEN for November 18, page 562, on "Plants for Dry Positions," and especially in reference to the remarks on the success or failure of certain annuals in the very hot summer that is past, I think it may be interesting to record my experience with an annual not mentioned there, viz., the single Aster (Callistephus) sinensis. My garden is a particularly dry one, even in an ordinary summer, on a steep slope with a light soil, and exposed to full sunshine all day long. Most of the annuals (and some other things) in it this season were literally burnt to death, but Aster sinensis—the purple and pink varieties—of which, happily, I had a larger stock than usual, was a great success. It was planted out about the middle of June, and ten days later had about an inch and a-half of rain on it. After that it had practically no moisture at all (it was never watered) until it came in bloom. The plants grew with wonderful vigour in a soil that for weeks was simply dust, and were of branching, bushy habit, with healthy, dark foliage. From early September to well into October armfuls of really good blooms with long, stout stalks were cut from them, and lasted extremely well in water, many of them looking quite respectable more than a week after cutting. I have grown this plant for years, but never knew it to do so well as this season. Some other Asters of the Giant Comet variety in the same garden were miserable, sickly things, and annual Asters generally in gardens round about were of poor quality.—JOHN A. MACDONALD, *Woolsthorpe, Grantham.*

Single-flowered Chrysanthemums. — Mr. Jacob need offer no apology for expressing his high admiration for the very fine single-flowered Chrysanthemums of to-day, and as a true florist it is such as he who should not only be the champion of form in flowers, but also such true or natural form as these superb singles now present. If he felt at Liverpool some strong appreciation of those flowers on seeing them there, how much more must he have felt their influence when at the Royal Horticultural Society's meeting on the 21st ult., when from so many sources and of older and new varieties were the very finest collection of singles yet anywhere seen. The white Mensa meets with Mr. Jacob's praise. To me it is the most perfect ideal of all the singles, and as seen at the meeting in question, in Mr. Wells' group, it was unbeatable for both purity of colour and perfection of form. Why will not the floral committees in making awards to new varieties take Mensa as presenting an ideal which new ones should seek to emulate? The petals are of the exact length to correspond with the breadth of the eye or centre; they are broad, stout and slightly reflexed, giving an element of beauty far too much lacking in many others. Very long petals somewhat regardless of form are characteristic of many flowers, and where in such case the petals are narrow and thin, the flowers soon assume a ragged appearance. In the past far too many of that ragged regiment have been both tolerated and honoured. Those who aim at raising single Chrysanthemums from seed—and just now they are legion—should have in stock a few of the very finest named varieties as examples of what they should aim to secure. It is certain that both large-flowered, Anemone-flowered and Pompon singles are becoming the popular favourites. Of the latter section, the pretty Mary Anderson does not seem to have been excelled for form; and while in connection with the Anemones there is still room for development, wonderful as may be the giant double Japanese blooms, it is not possible to expect they can remain the favoured Chrysanthemums very much longer. Just as giant show Dahlias have had to give place to Cactus forms and singles, so also are these latter in danger of being ousted by the singularly beautiful Collarettes. So also have big show-board Roses become of less importance than the garden, bunch, climber and singles, and in the same way giant Chrysanthemums must give place to the much easier-grown and far more decorative and beautiful singles. No doubt, to many persons the term "single" as applied to flowers which have two, three or even four whorls of florets seems to be an anomaly; but in any case even these, when well grown, assume the single whorl form, and that is much. It is that form it is so desired to perpetuate. A few fine varieties with Mensa are Sylvia Slade, Cannell's Crimson, Roupell Beauty, Joan Edwards, Mrs. W. Buckingham, the White, Bronze and Edith Pagram, Charles Dickens and F. King.—A. D.

The Calabash Pipe Gourd.—In connection with the subject of the so-called Calabash Pipe Gourd, which forms material for your leading article on page 453 of the issue for November 18, I should like to say a few words on a point that does not seem to have occurred to writers on the subject, or to those who have attempted the cultivation of the plant for the

sake of converting its fruits into pipes. The most generally-accepted or popular name for Lagenaria vulgaris is Bottle Gourd, indicating that the usual form of the fruits is that of a bottle, which is, perhaps, the most common use to which it is put in tropical countries where the plant is now widely cultivated, and in many of which the fruits are so manipulated during growth that perfectly-shaped bottles, decanters, drinking cups, snuff-boxes and numerous other articles are produced, either by growing in moulds of the shapes required, as Cucumbers are grown, or by binding with some tying material, the impress of which may be made to assume an ornamental character. Ornamentation, however, is often produced by carving or painting. Illustrations of these methods and uses are well exemplified in the Kew Museum. By the use of moulds in growing the fruits for pipe-making, the shapes could be varied or even the surfaces made ornamental. In your article you say that vigorous plants "may produce from ten to twenty Gourds, but all are not suitable for pipes, for some grow too large and others too straight." These difficulties might be overcome by some such treatment as here described.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

The National Rose Society's catalogue.—One of the most useful services rendered by this publication for the present year, and for which all who have copies are greatly indebted to the compilers, is its classification under numerous headings of so many varieties that seem to be more specially fitted for one or other purpose. That there are many varieties which appear in several lists is natural, as they are so exceedingly good, as, for instance, out of eight lists of twelve selections I have made, Mrs. J. Laing comes into four. But the book finds twenty-one diverse headings, which serve to illustrate the wondrous variety of form, growth and adaptability found in Roses. How diverse from the old selections of China, or Monthly, Moss, Cabbage, Provence, Hybrid Perpetual, Bourbon and Noisette of sixty years ago! The list, a very long one, considerably over one hundred, many of them of first-class excellence both for exhibition and garden, which give sweet perfume, shows that many of the complaints heard as to the creation of non-perfumed Roses is hardly justified. Many of the most glorious Roses in cultivation have perfume, and although the specially-selected list is but one of twenty-nine varieties, it is well known that Roses vary in perfume materially, according to the conditions under which they are grown; hence the entire list merits the fullest consideration. How often in the course of one's horticultural journalism, or even in other ways, does the question come, "Can you give me a selection of good exhibition, garden, climbing or other Roses?" something which it is not possible to do satisfactorily on the spur of the moment. To be prepared for such possible requests, I have, from the society's catalogue in preference to any trade list, made eight selections of twelve varieties, including Hybrid Perpetuals, Hybrid Teas, Teas, sweet-scented, garden, climbing, single-flowered and for pot culture; hence am now armed ready to meet all demands. The public interest in Roses is indeed great. The plants flower over so long a period, are so hardy, so perennial, give such wondrous variations in colour of flowers and in habit of growth, and seem to have in their ranks varieties that suit all needs, all positions and all tastes. Truly the world of the rosarian has a bright "rosy" outlook.—D. K.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

STRAWBERRY FORCING.—Should ripe fruits be required early in March, a batch of plants must be placed indoors at once. A suitable place to grow them for the first few weeks is a shallow, heated pit. A hot-bed, consisting chiefly of leaves, which will give just sufficient heat to excite root action, should be made in which to plunge the pots near the glass. Failing this, a shelf near to the glass in a vinery which has just been closed will suit them during the early stages of growth. Those plants having single crowns will give the best results for the early supplies, and they must be selected from the most forward batch of plants. Before placing them indoors, see that the drainage is quite clear and remove the decayed leaves. Afterwards lay them on their sides and thoroughly drench them with an insecticide. Unless the weather becomes very cold, the heat from the hot-bed will be sufficient to meet the needs of the plants for the first two or three weeks; even then great care must be exercised when applying artificial heat till the flower-spikes are throwing up. At this stage the temperature can be raised considerably, and water can be applied to the roots more freely. Diluted liquid manure and Le Fruitier given occasionally will strengthen the flower-spikes when they are developing, but manure must be withheld while the plants are in flower.

Late Muscat Grapes.—The remaining bunches may be cut now and placed in a dark room in bottles in a temperature of about forty-five degrees. Cut the bunches with a good length of wood, so that a large portion of it is submerged in the water. When the Grapes are cut, the borders should be given a good soaking with clear water. This may be followed with another soaking with diluted liquid manure. Unless the roots are in an unsatisfactory condition (in which case the Vines should be renovated as advised in a former calendar), the lateral growths may be half cut back and the house thrown wide open. All late Vines may be treated in like manner, unless the Grapes are needed at a very late date, in which case the bunches had better hang till the end of the year.

KITCHEN GARDEN.

Early Potatoes.—If the demand for early Potatoes is only small, the best method of producing the very earliest crops is to plant them in 8-inch or 10-inch pots. Select the tubers and place them in boxes on a layer of leaf-mould. Place the boxes on a shelf near to the glass in a moderately warm house, and sprinkle them two or three times a day. When the shoots are an inch or so long, rub off all but the strongest; then plant the tubers in a compost of loam and leaf-soil in equal parts. Leave sufficient room in the pots for a top-dressing later on.

Broad Beans.—If the conditions are favourable, a sowing of Broad Beans may be made now for early supplies. A piece of ground which is not too heavy, but which has been trenched and well manured, should be chosen for this crop. The ground should, if possible, be in a sheltered part of the garden.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

TRENCHING.—As soon as it is convenient for getting manure wheeled on to the ground, the vacant plots may be dug or trenched; and as manure loses a good deal of its fertilising properties if left to lie long in heaps, it should be at once turned in. There is no doubt that, where it is possible, the soil to the depth of 2 feet should be kept in a fertile condition, and to obtain this trenching should be carried out systematically, the lower spit being brought to the surface every second or third year, and a large quantity of manure incorporated with the soil. If this is done in a thorough manner, few failures in the vegetable crops will be experienced even in the driest seasons. When the soil is light and has carried garden crops for a long series of years, some effort should be made to introduce fresh soil; a great improvement will be noticed if a layer of turf from some old pasture is placed in the bottom of the trenches and brought to the surface again after a lapse of two or three years. Road parings and scrapings will also serve to improve a soil that has been heavily cropped year after year on a fare of farmyard manure only; in fact, anything in the nature of a virgin soil added to it will make its good effects apparent in a very short time. Very often such material is found lying ready to hand, and is invariably of more value than expensive manures. Place in the bottom of the trench any turf, road trimmings or any rough ingredients that it is desired to get rid of, and which may contain some elements of plant food. Over this turn the top spit of soil, and then add a layer of half-decomposed manure, on the top of which the bottom layer of soil should be levelled. If the soil is deficient in lime, a little may be incorporated with the top layer, or it may be applied as a top-dressing on the surface just before cropping the ground. The preparation of the soil as above will suit most garden crops, except perhaps Potatoes. These we prefer to plant on ground that has been heavily manured the previous season for other crops, giving no manure except a little artificially compounded Potato manure at the time of planting.

Rhubarb.—If fresh plantations of Rhubarb have to be made, the ground for this crop should also be deeply cultivated and heavily manured, as it is a deep-rooting subject. The best time to plant is in February or March, so that the soil will have thoroughly settled by that time. If large quantities are forced each year by lifting the roots, it will be necessary to make frequent fresh plantations, and roots of four or five years' growth make the most suitable for lifting to force. Those that have been forced can be used for making the fresh plantations if they are removed to a cool and moist position as soon as the crop has been gathered. In order to keep up a continuous supply, fresh batches of roots must be placed in the forcing-house every three weeks or so; only those varieties that force freely should be used for early supplies. The variety Royal Albert is still one of the most useful. A newer variety, The Sutton, we find forces well, producing fine stalks of a bright red colour.

Celery.—This should receive some protection from hard frost. Bracken or green Spruce branches may be employed, as they are less liable to be blown about than straw. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

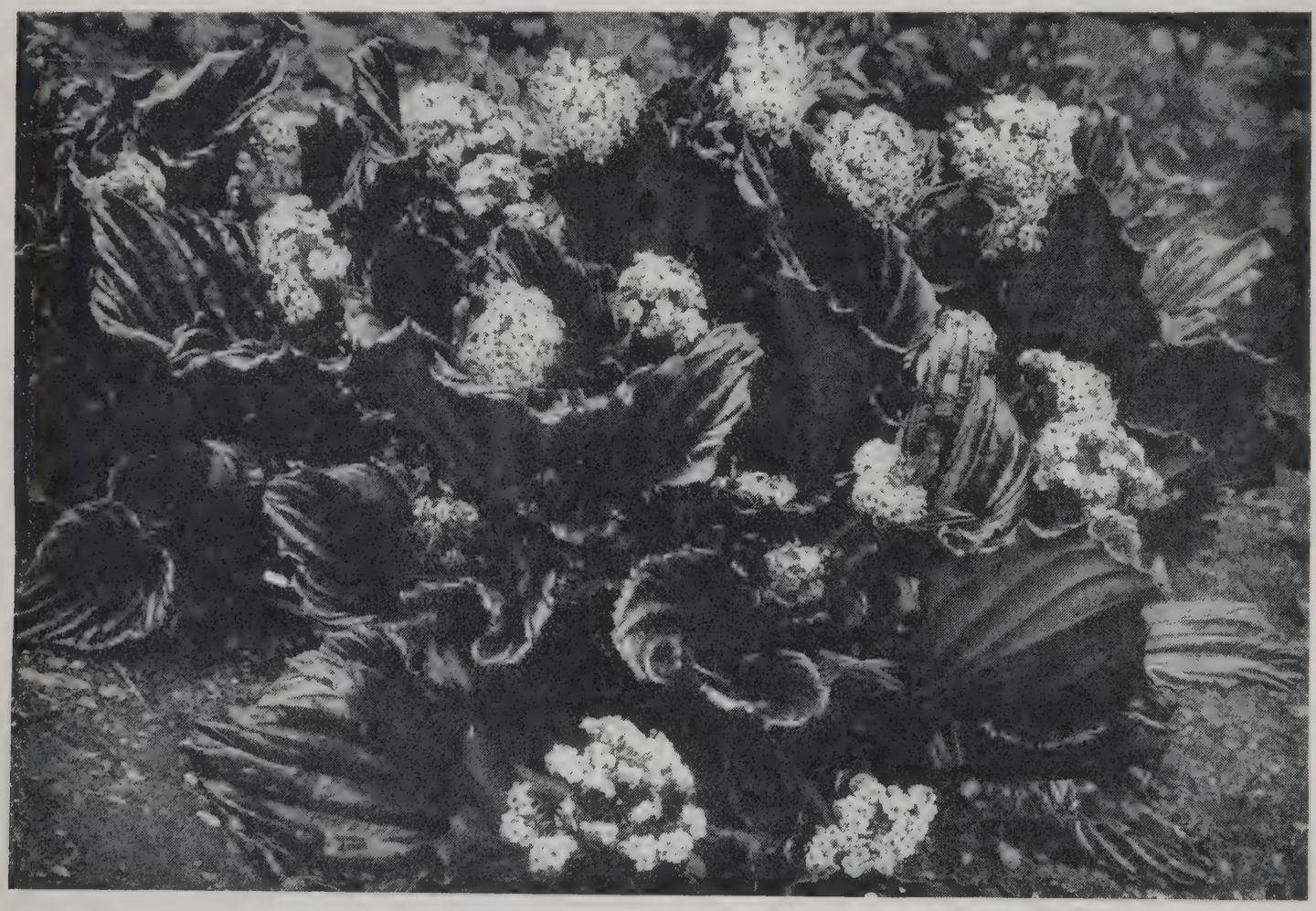
Glamis Castle.

THE FLOWER GARDEN

THE NEW ZEALAND FORGET-ME-NOT.

(MYOSOTIDIUM NOBILE.)

THIS plant is a native of Chatham Island, which is situated about seventy miles to the east of the southern island of New Zealand. Here the Myosotidium grows on the sea beach just above high-water mark, near enough to the salt water to be drenched with the spray. It was introduced to this country in 1858, and was first described in the *Botanical Magazine* in 1859. When first introduced, the Myosotidium was treated as a greenhouse plant, and the earlier illustrations of it were evidently prepared from weakly specimens which had been grown under glass, but it is found to succeed perfectly in the open in South Devon and Cornwall, though exceptionally severe frosts, which, fortunately, are seldom experienced in that favoured locality, may cripple it, and for this reason a few Fir branches are often fixed above it during the winter.



THE NEW ZEALAND FORGET-ME-NOT (MYOSOTIDIUM NOBILE) IN MR. FITZHERBERT'S GARDEN.

Mr. John D. Enys of Enys in Cornwall, who has a charming garden, was the first to import seeds of the Myosotidium from New Zealand to that county and to start on its culture as an open-air plant. He distributed seeds among his friends, and there are at the present day but few Cornish gardens where the plant is not grown. There is no comparison between the comparatively weak growth exhibited by pot plants and the robust health manifested by well-grown specimens in the open air, where the plants sometimes attain a height of close on three feet and carry leaves which are often as much as 2 feet in length and 18 inches in breadth, the foliage suggesting that of the Rhubarb in its noble form, and being particularly attractive owing to its bright green tint and polished surface.

From these splendid examples dozens of branching inflorescences are thrown up, the flower-heads being often as much as 8 inches in diameter, while the individual blossoms are about half an inch across. The flowers are followed by large, four-winged seeds, and self-sown seedlings may sometimes be seen springing up in numbers around the parent plants. In the colour of the flowers there is considerable variation. In the best form they are of a uniform deep blue tint, but in others the centre of the flower is a deep blue, margined by a paler shade, often almost white, at the edge of the flower. At Enys there is also a pure white variety grown, which is very beautiful.

As already stated, in its native land the Myosotidium grows on the sea beach, and at Enys there is a painting of the plant flourishing in its native habitat and fringing the beach on Chatham Island with a long line of deep blue. Unfortunately, according to Mr. Enys, the plant is now being rapidly exterminated by cattle and other agencies, so that, in all probability, its home will in a few years know it no more. The fact that the plant naturally grows in sea sand has led to the employment of this to a greater or lesser extent in preparing the ground for its reception in this country. In some cases only a heavy surface dressing of sea sand is given over a compost of porous soil; in other cases sea sand is mixed with the soil in equal proportions; but at Menabilly, where in Mr. Jonathan Rashleigh's time a large number of Myosotidium plants were grown, they were planted in pure sea sand, and were unusually fine. Large holes were dug out, a cart was sent down to the beach and filled with sand, and this was emptied into the holes and the seedlings planted.

At Menabilly the plants are almost exclusively grown in front of high walls with varying exposures, but were not found to do so well where the wall faced due south as in sites not so much exposed to the sun. With incessant sunshine, if the plants are grown in front of a south wall, where on scorching summer days the radiation is intense, the foliage flags badly, but shade, except for a few hours in the day, is not desirable.

When in full growth, the Myosotidium is partial to an abundant supply of water, and this very dry summer numbers of plants have been badly injured by the drought. The plants are generally in the zenith of their beauty in the month of May, when a large colony, carrying hundreds of great, deep blue flower-heads, is a marvellously beautiful sight. It is, unfortunately, only in the South-West that this plant can be treated as an open-air subject; but it has withstood 10° of frost in a Devon garden, unprotected, without being harmed. In 1907 Mr. Enys, at considerable trouble and expense, sent three large plants in tubs in full bloom to the Temple Show, where they created quite a sensation among the visitors, few of whom had ever seen the plant before. For these plants Mr. Enys received a silver Banksian medal. Mr. Enys used formerly to grow the whole of his plants under a wall facing south-west, but has lately made a plantation under a north wall, where dozens of plants have made splendid growth and have flowered excellently. Plants will flower in three years from seed-sowing, but deteriorate considerably after a few years' flowering, and when loss of vigour is apparent they are removed and seedlings planted in their place.

The plant shown in the accompanying illustration was growing in a garden close to the mouth of the River Dart in South Devon. It was planted in a depth of 3 feet of sand obtained from the tidal portion of the river a few miles above Dartmouth, which was, therefore, practically sea sand. It was rather over two feet six inches in height and about three feet in diameter, while it carried over twenty flower-heads, some of which measured 8 inches across. The next year it was surrounded by self-sown seedlings.

WYNDHAM FITZHERBERT.

THE REVIVAL OF THE VERBENA.

FOR the palmy days of the Verbena one has to go back to the sixties and early seventies, when great numbers of them were awarded certificates by the Royal Horticultural Society. In those days there were no awards of merit, so that first-class certificates were lavishly bestowed. The late Mr. Henry Eckford (identified later on with the improvement of the Sweet Pea) was one of the foremost raisers at the time, and his new varieties were eagerly sought after. Verbenas were then extensively used for bedding purposes, and also for growing into specimen plants. Formal bedding and the long ribbon borders were in the height of their popularity, and it was no uncommon thing to see long lines of such varieties as Purple King and Scarlet King in front of the border.



APPLE TOWER OF GLAMIS ATTACKED BY BITTER-PIT.

After a time Verbenas declined in popularity, owing, at least partially, to the bad attacks of mildew which infested them in many places. It was generally considered to be to a large extent set up by the practice which prevailed of propagating them in a wholesale manner in strong heat in the spring, and as at that time sulphur was regarded as almost the only fungicide, the disease often ran unchecked. Be this as it may, the fact is that Verbenas lost their popularity and were, after a time, but little seen. The revival in their favour is to be traced to the advent of the variety Miss Willmott, which is of good free growth, with large, bold clusters of beautiful deep pink flowers. Its history, as told by Miss Willmott some years ago in THE GARDEN, is that it made its appearance among some thousands of mixed seedlings, and, being noted for its uncommon size and beautiful colour, was extensively propagated.

It was not long before this variety found its way into the hands of the market-growers, and model specimens grown in the regulation 48-sized pot—that is to say, one 5 inches in diameter—soon made their appearance in Covent Garden. These caught on, the result being that their culture was taken up by many, and not only this variety, but others were extensively grown. Parti-coloured flowers are not at all popular with the market-grower, as he knows from experience that they do not sell as readily as those of a clear self colour. Owing to this, the varieties principally grown in addition to Miss Willmott are a good scarlet, white and purple. H. P.

FERNS AND ROCKERIES.

MR. CRANE'S pleasant article on Ferns and rockeries in your issue of November 4 tempts me as a Fern-grower for forty years to add a few words. Some suburban people seem to think Ferns will grow anywhere and anyhow; they are so pretty if you will just stick them in. I have seen a garden where that sort of thing has been attempted, a thin bank of tough London clay planted with some fairly good Ferns, "our own selection at so much a dozen," on the top and exposed to full sun all day. They grew all right in the wet, sunless spring, but have now evidently been swept away as a failure. Ferns should not have too much sun; indeed, the less the better as a rule, though, of course, on moors and on the Derbyshire mine-heaps they will live, as they root deeply. So, too, we are familiar with Ceterach and Wall Rue apparently roasted to death on a high wall, but coming up with perfect vigour the next season. It is not advisable to subject our pets to needless strain, and regard should be had to aspect as well as to rooting material.

The best aspect for the normal Fern rockery is undoubtedly full north, but as that cannot always be had, east and west may do. Drainage is most important. In a rocky neighbourhood it sometimes suffices to loosen some blocks with a crowbar and let them fall into their own arrangement. But if the rockery has to be built up, it is better, especially in a stiff soil, to dig out as deep as the pocket will allow and fill the bottom part with any broken rubbish, old bricks being very good. It is *not* important, in my opinion, to put turf, &c., to prevent soil washing down; in fact, I prefer to grout in bricks and soil as the work proceeds. If the soil is very stiff, it should be mixed with lighter material and plenty of broken stones. I have found rough road and gutter scrapings good, especially with a proportion of stiffer soil worked in. As the hole gets filled up, the building of the fernery proper must be carefully done. It is generally well to have some big blocks at the base in front. I have seen three ways of laying the blocks. The commonest way is the worst, setting them up on edge, ninepin fashion, so that the first rain washes all the soil out from between the blocks, to the ruin of the rockery and the injury of the pathway. Others put the blocks or slabs flat, overhanging in front, which is good, or with a cant to the front. It is important to make them slope down at the back in addition to the overhang in front, as this conserves both soil and water, the latter an important item in such a season as we have just had. There is not the slightest fear of waterlogging with a rockery so built.

The best soil is leaf-mould, with sharp, gritty sand and plenty of small stones. I generally cover the pockets with an inch or 2 inches of broken stone. The Ferns simply revel in it.

The other hints in the article are eminently practical, and I need not recapitulate. One most unorthodox hint and I have done. In the autumn I gather all the leaves I can and throw them over the Ferns. The frost is kept out, and in the spring the fronds rise through the decomposed leaves, of which not a trace eventually remains. The Ferns seem to have eaten them all.

Wembley. J. G. R. POWELL.

THE FRUIT GARDEN.

BITTER-PIT IN APPLES.

THE disease of Apples known as "bitter-pit" has been extremely prevalent during the past year, not only in the softer-fleshed varieties, in which it always occurs more or less, but also in the hard-fleshed sorts, though to a much less extent. The disease is characterised by the presence of small but usually numerous brown spots some distance below the surface, and, as a rule, not in any way connected with the surface. Some of these spots, as it were, show through the skin, usually appearing then of a darker green colour than the rest of the surface. Examination of the spots under the microscope shows no trace whatever of fungus mycelium nor bacteria. All investigations that have been carried out so far go to show that neither the one nor the other is concerned with the production of the dead spots, but rather that these are to be attributed to some physiological cause. The dead cells invariably contain starch grains, while the rest of the Apple cells contain none. The starch that previously existed in these cells has in the ordinary course of events been converted into sugar during the ripening process, and this process has been suspended in the cells comprising the dead tissue. It therefore appears that whatever the cause of death may have been, it operated before the ripening process had well begun.

Consideration of all the circumstances, and especially of the prevalence of the disease during



THE NEW DECORATIVE CHRYSANTHEMUM GOLDEN CAP. (*See page* 582.)

the present season following the hot, brilliant weather of the past summer, and the fact that the trouble is too well known in Victoria, Australia, and at the Cape, suggests that we have to look to climatic conditions as the cause. It would appear probable that at some time near that when ripening normally commenced the water supply to the cells was seriously interfered with, and possibly there was an accumulation of tannin or of malic acid in certain spots which led to the death of the cells.

In the absence of exact knowledge of the precise cause of the disease, any suggestion as to a remedy must be a merely hypothetical one; but it would seem that attention to the water supply during the development of the fruit, and perhaps also some method of shading the fruit, were called for in such seasons as that through which we have just passed. It does not appear probable, unless in the unlikely event of a summer as trying as the past, that this trouble will recur to the same extent again. SCIENTIST.

APPLE TREES FOR SMALL GARDENS.

WHEN trees or bushes come to hand from the nursery and the roots are found to be dry, it is good policy to soak them for an hour in a pond or a large tub of water; then, if the ground is not at once ready for planting, to lay them in by their "heels"—to use a nursery expression—putting plenty of fine soil about the roots, until the planting can proceed. It commonly happens that tree or bush roots so treated almost at once commence to make new rootlets. But when the permanent planting is carried out the trees or bushes should be drawn out and planted one at a time, so that these new rootlets do not suffer, or, in any case, the roots while out of the soil should be closely covered up. The future welfare of these newly-planted things will greatly depend on whether the soil in which the planting is done has been well prepared by deep working and well pulverising, also whether in a fairly fertile condition. Trees when newly planted do not need the addition of fresh or crude manure. A soil that has been cultivated for vegetables, and Potatoes especially, deeply worked and previously manured, offers the most suitable material for fruit tree planting. Make the hole of ample width to allow the roots to be laid out freely, rather shallow than deep. Have more soil added, and let it be well trodden down. Complete the filling in and give a thin mulch of long manure around the trees. These are the conditions which should ensure full success even to the merest novice. For small gardens in which it is desired to plant half-a-dozen diverse trees of cooking Apple, a good succession is obtained from Early Victoria, Stirling Castle, Royal Jubilee, Bismarck, Lane's Prince Albert and Newton Wonder. Six good dessert varieties for the same purpose are Worcester Pearmain, James Grieve, Allington Pippin, Cox's Orange Pippin, Rival and May Queen. Probably several other good selections might be made. A. D.



FLOWERING BRANCH OF THE SILVER BELL OR SNOWDROP TREE, HALESIA TETRAPTERA.

CHRYSANTHEMUM GOLDEN CAP.

THIS new variety is one of many that have originated as a sport from the time-honoured Caprice du Printemps. The new-comer is also referred to as Yellow Cap, and it is unquestionably a first-rate decorative variety. Chrysanthemum sports have a peculiar way of occurring in different places in the same season, and Yellow Cap is one of this kind, seeing that it occurred with Messrs. W. Wells and Co. at Merstham and with Messrs. James Veitch and Sons, Limited, at Feltham. It received an award of merit recently from the Royal Horticultural Society when shown for the first time by both of the firms mentioned.

AN INTERESTING ORCHID.

(ANGRÆCUM KOTSCHYI.)

THE Angræcums are very curious epiphytal Orchids of variable habit. One of their remarkable characteristics is the long tail-like spur drooping from the base of the lip. Many of the Angræcums flower throughout the winter, and the plant of A. Kotschyi illustrated on page 583 was shown at the recent meeting of the Royal Horticultural Society by Messrs. Mansell and Hatcher of Leeds. The flowers, about one and a-half inches across, are almost white, with a faint perfume. The spurs, about seven inches or eight inches in length, are distinguished by the two spiral twistings peculiar to this species. A. Kotschyi is a native of Zanzibar, and is apparently quite at home when grown on a cylindrical block of Teak wood in a humid Orchid-house.

TREES & SHRUBS.

THE SILVER BELL TREE

HALESIA TETRAPTERA, commonly called the Snowdrop Tree or Silver Bell Tree, is a showy species of more than average interest, which is worthy of inclusion among select collections of trees. A native of the United States of America, it is met with from Virginia to Florida, frequently as a moderate-sized tree, or, again, as a large bush. Under cultivation both styles of growth are affected, for at times it resembles a well-developed, round-headed Apple tree in habit, while, again, it may be found as a bush a few feet high and 8 feet or 10 feet across. The blossoms are white in colour, bell-shaped and pendulous; hence the common names. They are borne freely in most years, the flowering period being the latter part of May, though the time varies somewhat according to season and the part of the country where it is growing. Quite small plants blossom well, but, of course, they are less effective than well-grown examples. They are rather impatient of root injury, and specimen plants transplant badly, unless a large ball of soil can be moved with them. Halesias, as a rule, thrive in light, loamy soil, and this one is no exception. D.

A NEW SHRUB FOR PLANTING UNDER TREES.

ALMOST the only shrubby member of the order to which the Sarcococca belongs (Euphorbiaceæ) is the Box, which is well known to succeed fairly well beneath the shade of trees. In this respect it is, however, surpassed by its relative—Sarcococca ruscifolia—a comparatively new introduction from Western China, which was given an award of merit by the Royal Horticultural Society on December 22nd, 1908, and distributed last year by

Messrs. Veitch. In their Coombe Wood Nursery its merits for furnishing a bank under trees has, during the past summer, been well tested, and it has behaved sufficiently well to show that in this Sarcococca (what a name!) we have a valuable plant for this purpose. It forms a dense bush 2 feet or so in height, the branches being clothed with leaves not unlike those of the Butcher's Broom, but larger, while they are of a deep, bright, shining green colour. The white flowers are not at all showy, but pleasantly fragrant. Although of such recent introduction, this Sarcococca is so moderate in price that its merits can be tested by anyone. A very small member of the same genus—S. humile—which is being distributed this autumn, is equally valuable for the same purpose, but the greater stature of S. ruscifolia will, no doubt, commend it to many. H. P.



A REMARKABLE ORCHID (ANGRÆCUM KOTSCHYI) GROWING ON A RAFT. (*See page* 582.)

ROSE GARDEN.

THE NATIONAL ROSE SOCIETY'S AWARDS FOR SEEDLING ROSES.

IT is evident from the correspondence on this subject which has been published in THE GARDEN recently that there is some misapprehension as to the intention of the National Rose Society in making awards to seedling Roses. Criticism is valuable in proportion to knowledge possessed of the subject criticised. Let us recall to mind what these awards are and what their limitations.

The National Rose Society holds exhibitions annually. At each exhibition the exhibition schedule contains the following class. (I quote for the year 1911):

"Not less than 6 trusses of any new Seedling Rose or distinct sport (either not yet in commerce, or not first distributed earlier than November, 1910; a ground plant of the variety must also be shown). It must be stated by the Exhibitor to what class he considers the Rose to belong, whether H.P., H.T., T., etc."

The award offered is a gold medal, silver-gilt medal, or card of commendation. Notice that on three specified dates last season, viz., July 7, July 19 and September 14, and *at no other time*, were these awards offered. Notice also that this class, unlike all other classes, is non-competitive; there is no limit to the number of awards. There may be many; there may be none at all.

The rules for judging Roses in this class are laid down as follows:

1. "The Judges to be appointed, on the recommendation of the Exhibitions Committee, by the Council, and to be 12 in number. Five to form a quorum. No award to be made except there be at least a two-thirds majority of those present in favour of any variety. Any Judge having an interest in an exhibit shall be asked to retire before the judging of that exhibit begins."

2. "Voting to be by a show of hands. The Chairman to have no casting vote."

3. "Full particulars of each variety entered to be sent to the Hon. Secretary at least two full days before the show. The points required to be as follows: (1) Name of the Rose. (2) The class to which it belongs. (3) The habit of growth. (4) The purpose or purposes for which most suitable, whether exhibition, garden, bedding, or otherwise. (5) Whether a seedling or sport. If a sport, the variety from which it came to be given. (6) Whether perpetual-flowering. (7) The raiser's name. (8) The exhibitor's name. (9) The exhibitor to be invited to state the stock on which the ground plant exhibited is worked."

From this it will be gathered (1) that the award is restricted. No opinion is offered, no judgment pronounced on the merits of any variety except those staged in this seedling class on three specified days in the year. There may be far better seedling Roses in the exhibitor's garden at home, only they did not happen to be in bloom on any of the three specified dates. One variety is fortunate in its date, other varieties unfortunate. One variety obtains a gold medal, other varieties do not. (2) The gold medal and other awards are offered for Roses "not yet in commerce," so that except in the garden of the raiser or exhibitor those Roses are untried, unknown novelties. The majority of the judges have no knowledge of the Rose except as staged at the exhibition. All that the judges are asked to do is to inspect six cut flowers grown either under glass or in the open, and a plant of the variety which must have been grown out of doors.

Let us suppose a gold medal has been awarded, does that stamp it as the best Rose of the year? By no means. All that is thus conveyed to the public is that on a given day and at a specified hour the judges had six blooms of a seedling brought before them which in their opinion was sufficiently good to justify them in giving the raiser a gold medal. They are in ignorance as to the number of plants grown; the six Roses may all have come off one plant, or the exhibitor may have had to go over several thousand plants before he could get those six flowers. Again, these six flowers, perhaps, are exceptionally good ones, far above the average, and never likely to be seen again, or they have come off maiden plants of a variety lacking in constitution, will not transplant, will not survive a pruning. It may be an excellent Rose for the exhibitor, but a poor one for the garden. Those six flowers may be the result of high cultivation, generous feeding and skilful manipulation on the plant or on the stage. If, therefore, people purchase a Rose simply because for it the exhibitor was awarded a gold medal, they do so at their own risk. If, on further acquaintance, it is found to be worthless, no blame can be attached to the National Rose Society.

One word more. A correspondent in your issue of November 18 asks a series of questions, to some of which I will endeavour to reply. "Is the gold medal always awarded to the best Rose?" No. "Are Roses unawarded not as good as the gold medal Rose?" They may be better. "Does an award help the public in selecting the best sorts, to the exclusion of worthless varieties, or those of little value?" No. "Is it the best way to ensure perfection and the attainment of progress in the introduction of new sorts?" Yes, in so far as it encourages the raiser to whom the award is made. JOSEPH H. PEMBERTON.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

WINTER SPINACH.—This is indisputably one of the most important of the winter vegetable crops, and it is therefore a mistake on the part of amateur and cottage gardeners to neglect it to the extent which prevails at the present time. It is not a difficult plant to grow, but will not tolerate poorness of soil, especially in regard to depth, and it will not flourish when the plants are crowded in the rows. The minimum distance should be 8 inches, and if this is exceeded there will not be loss in the produce, as the leaves will be finer both in size and substance. In gathering, too, considerable care is desirable, as it is unwise to strip a plant entirely. Instead of doing that, when picking is in process in the winter go over the whole or a large proportion of the quarter, taking the best leaves from many plants, and not small and big alike from an individual.

PARSNIPS.—If one could be absolutely sure that the ground would not become hard frozen, one would never lift the Parsnips, because, no matter how carefully they may be stored, they quickly lose in flavour and quality afterwards. Wherever it is possible, the bed should be covered with any protective material that may be at command, and sufficient roots ought to be lifted at one time to last a week, when the losses mentioned will not be serious. Where, however, efficient protection cannot be afforded, the crop must be harvested and stored similarly to Beet and Carrots. Sand is the best material, but fine, dry soil will answer nearly as well. There should first be a layer of one of these; then of Parsnips, tails inwards; then of soil, and so on until all the roots are built up in a square heap. The place chosen should be cool and airy, and have an equable temperature.

MINT IN BOXES.—The demand for fresh Mint is incessant, and the good cultivator will spare no efforts to meet it. Fortunately, it is not a difficult matter to those who have a good, healthy bed in the garden, since roots lifted and put in boxes will quickly produce fresh, sweet shoots. The soil ought to be on the light side, and boxes about six inches in depth should be used. Pack the roots in firmly, stand the box in the genial temperature of an ordinary greenhouse, keep the soil pleasantly moist, and there will be no cause to grumble at the returns. One or more boxes may be made up at a time, according to the demand, but large batches are not generally desirable.

HORSE-RADISH.—When Horse-radish is planted in the garden, it is thought that no further attention is necessary, and that there will always be a plentiful supply of sticks at command for lifting when wanted. In a sense this is correct, but the trouble is that the plant will degenerate into a most troublesome weed, and the difficulty of securing a decent stick will be immense. Those who want this crop must be prepared to give it the same intelligent attention that they devote to other things. The bed should be thoroughly cultivated, and a new one ought to be made every two years. When the old one is grubbed, all particles of root must be removed, to leave the site clean for the next crop. An even better method of culture is on ridges. A trench 14 inches wide and about three inches deep should be cut and firmly filled with rotten manure; then build up with friable mould to a height of 10 inches and a width at the top of 6 inches to 8 inches. Along each side, at distances of 8 inches, insert root cuttings 4 inches in length, pushing them obliquely downwards, but not at such an angle that they will come into contact with the manure. This system gives readily-accessible sticks of perfect quality, a fresh ridge being made each year.



FIRST PRIZE COLLECTION OF GRAPES SHOWN BY SIR DANIEL GOOCH, BART., AT THE CHELMSFORD SHOW.

JERUSALEM ARTICHOKES.—If these have not yet all been harvested, the work ought to be carried out at once. It is customary to plant them in the same position each year, as they are utilised as screens. Small tubers of good shape should be sorted out for seed purposes. H. J.

HARDY GREENS FOR SPRING SUPPLY.

ON account of the poor growth these have made during late summer and autumn, there is sure to be a scarcity in spring, and therefore it behoves those who are responsible to be on the look-out to see if anything can now be done to help the supply at that time. It is the rule for the plants left over in the beds after the usual stock is planted to remain there till the autumn before they are thrown away. Anyone having strong plants, even if they are a little leggy, would be well advised to plant them fairly close together, as, if the weather remains open for some time, with the help of recent rains, they will make some growth and be found useful to fill up gaps until early-sown spring crops are available. I allude to the following: Greens (or Borecole) of all kinds, Savoys, late Broccoli and Leeks. KITCHEN GARDENER.

THE TOWN GARDEN.

PLANTING HERBACEOUS PHLOXES.—These plants, if well grown, come in for so large a share of admiration during the summer months that one feels impelled to add another word in favour of their more extended cultivation at a moment when it might be advanced with profit to all. Too frequently the planting or replanting of these Phloxes is deferred till spring, and where the planting is done late and a long, dry time follows, the results are little short of disastrous. So very near are the herbaceous Phloxes to perpetual rooting that their planting, pure and simple, might be indulged in for a very long period. It is quite another matter if the planter is looking for prompt and good results, for then he must be equally alert about the planting, and the earlier they are in their places the more likely are they to give a good account of themselves at flowering-time.

NOVEMBER IS QUITE A GOOD TIME FOR PLANTING them, and though the preceding month in an average year would have been better, it were hardly so in 1911. November in any year and under any conditions is so vastly superior to March or April that it is here recommended with the greatest confidence.

PREPARING THE BEDS.—In doing this the amateur must not overlook the fact that the Phlox is a moisture-loving subject, one, too, possessed of a voracious appetite; hence these are things to be catered for if a full measure of success is to follow. Therefore prepare the soil to a depth of not less than two feet, and dig in, low down, ample supplies of manure, which, if well decomposed, is not likely to be overdone. Thoroughly incorporate the manure with the soil. Heavy or tenacious clay soils will be benefited by adding grit, leaf-mould—anything, indeed, that will reduce its stickiness and its water-holding propensities. Above all things, keep the surface of the beds moderately level or even below their surroundings, so that in a dry time the plants may be saturated at will. Occasionally in a dry season one hears the remark that "it has not been a good Phlox year," though, as a matter of fact, we saw excellent Phloxes during this driest of all seasons where the plants were youthful and had been generously treated and well watered. Speaking generally, light soils are best suited to growing these Phloxes, for not only do the roots ramify more freely in such, but the plants are also less subject to goutiness or canker. Light soils become dry in the extreme and need attention in this direction. It is, however, the heavy clay soils and those more suited to brick-making that are difficult to manage, for these, robbed of their moisture by great heat, quickly contract, and watering is of but little service. Culturally, however, nothing is of greater import than

YOUTHFUL PLANTS, since it is these, after all, which produce the finest heads of blossoms and the better leafage. Old plants whose rootstocks have become woody and hard are incapable of the same vigorous root action, and this being so, inferior results ensue. On the other hand, the youthful example—than which none is better than the yearling from the cutting—is, given intelligent treatment, capable of much that is good. Phloxes to-day are almost legion, though Sylphide, Amazon, Mrs. E. H. Jenkins, Tapis Blanc, all pure whites; Iris, Violet and Le Mahdi, blue shades; Etna, scarlet; Elizabeth Campbell, salmon; Selma, pink; and Baron von Dedem, rich red, are among the best. S. N. N.

GARDENING FOR BEGINNERS.

PROPAGATING THE AMPELOPSIS.

IN the present instance it is the writer's intention to confine his remarks more particularly to Ampelopsis Veitchii, a plant that has gained enormously in popular esteem since it was introduced to this country by Messrs. J. Veitch. Beautiful though this subject is when the plant first evolves its leaves in the early summer, autumn is undoubtedly the time when the great beauty of Veitch's Virginian Creeper is seen at its best. The great charm of the plant is its power of attaching itself to a wall. There is no need for the use of shreds and nails, as is customary with Ivy and most other climbing plants.

Ampelopsis Veitchii is known also by the botanical name of Vitis inconstans. This, as well as the older Ampelopsis or Virginian Creeper familiar to most readers from their childhood, that covers walls and fences so quickly with its elegant trailing growths, may be propagated by seeds, cuttings, and layering the shoots. Imported seeds may be obtained from any nurseryman or seedsman of repute. The seeds are usually sown in moderate heat in the spring, utilising any fairly light, sandy compost and sowing them thinly therein. Pots, pans, or boxes may be utilised and the seeds should be only lightly covered with soil. The more popular and certainly more satisfactory way of increasing the Ampelopsis is by cuttings and layers. A. Veitchii strikes very readily from cuttings, and the wonder is that so few amateurs and others ever seem to think of raising plants in this way for themselves. Success will attend the efforts of those who prepare cuttings some six inches in length, selecting fairly ripe shoots of the current year's growth for the purpose. There should be little difficulty in procuring a plentiful supply of growths of a suitable kind for the purpose of making into cuttings, as most plants of this climber evolve numerous shoots of the current year's growth that are nicely matured, with "eyes" well developed. It is the practice in some gardens where plants of Veitch's Ampelopsis are raised in large numbers to gather suitable shoots and to cut these into a series of lengths each of 6 inches to 8 inches. In Fig. 1 such pieces are shown, which quite clearly portray the character of the selected growths. Beginners who have but little accommodation will find their needs supplied by half filling a 5-inch pot with crocks (potsherds), and after covering the latter with a layer of moss or fibrous loam, completing the filling of the pot with a compost made up of loam, leaf-mould and coarse silver sand in equal proportions, first mixing these ingredients and passing them through a sieve with a half-inch mesh. The soil should be made quite firm, after which the cuttings should be inserted 2 inches deep and about an inch apart close to the inside of the pot. Care must be taken in pressing the soil firmly to the base of each cutting, otherwise satisfactory rooting will not take place. A cutting is made by severing the stem of the growth immediately below a joint, and this is clearly indicated in Fig. 1. Water in by the use of a fine-rosed can, and after allowing the pots to drain for a time, stand them in a cold frame, cool greenhouse, or even a window until rooted; then plant outdoors. Where a large number of plants are required, they may be raised under a hand-light outdoors. It is wise to leave the rooted cuttings in the pots or beds in which they have rooted until the succeeding autumn, and then to plant them out. September and October are the months selected by many growers for propagating by cuttings, but they may be rooted quite satisfactorily now.



1.—CUTTINGS BEFORE AND AFTER INSERTION.

A very simple method of increasing this subject is by layering the shoots during the autumn and at the present time. This operation may be done in the open ground or in pots. If in the open ground where suitable growths are obtainable, all that need be done is to form a shallow basin-like cavity, in which should be placed a small quantity of sandy soil. The layer should be bent down and a cut be made nearly half through the stem just below a joint, a peg being fixed across below where the cut is made. Soil should be added in sufficient quantity to cover the cut and the stem round about it. Much the same method is adopted when the shoot is layered in a pot. In Fig. 2 this operation is shown. It is seldom the layering of this subject fails to end satisfactorily.

D. B. CRANE.



2.—METHOD OF LAYERING A GROWTH OF THE CURRENT YEAR IN A POT.

POTATOES FOR PLANTING.

USUALLY when Potatoes are lifted, the cultivator finds plenty of tubers of medium size which are suitable for planting out. The main desire is, however, to secure as many large tubers, suitable for eating purposes, as possible. Undoubtedly good cultivation has much to do with so desirable a result; but it is a fact, though not generally realised, that the proper treatment of the seed tubers during the winter months has a most beneficial effect. Everything is not done when the seed tubers are simply placed in a shed or store-room at this season and kept safe from frost. Very few cultivators take the trouble to put the tubers in boxes or in single layers on shelves in a cool, dry shed or room. It is, however, the very best thing to do. Nearly all tubers produce several sprouts during the winter, and if they are rather long and weakly, and are planted in that condition, several stems are sure to grow from each root, and the new tubers will be under-sized. Often these long, weakly sprouts have to be rubbed off in spring, and then the tuber, or "set," must produce more, which are weaker still, and are, moreover, growing on a weakened tuber, so that the resultant crop is less satisfactory.

The right way to secure a really strong tuber is to keep the main shoot on each tuber right through the winter, so that in spring such shoot will be about three-quarters of an inch long and very sturdy, of a dark purple colour, and the only one on the tuber. One sprout to a tuber of a kidney or early variety is sufficient; two may be left on tubers of later sorts, but not more. If growers would only take this care with seed Potatoes the resultant plants would be stronger in constitution and less liable to disease. The exposure of the tubers to the light and air will cause the skin to turn quite green, but such a condition denotes good health and little liability to become diseased.

SHAMROCK.

HOW TO STORE FILBERTS AND WALNUTS.

THE husks will now readily part from the Filberts, and no time should be lost in storing the Nuts and the Walnuts for winter use. There are several ways of doing this, but the simplest, and certainly one of the best, is to place the Nuts in earthenware vessels made air-tight, and then bury the latter in a good heap of sand in such a position that when heavy rains come there will be no danger of flooding. When stored in this simple way the Nuts keep quite fresh, solid, and as sweet as when newly gathered.

B.

AUTUMN AND WINTER TREATMENT OF ASPARAGUS-BEDS.

[*In Answer to a Correspondent.*]

ALTHOUGH Asparagus has been grown in England for centuries, we have, perhaps, no vegetable in the garden the culture of which is less understood by amateurs; and no item in respect to its culture causes greater uncertainty and gives more trouble than the want of knowledge respecting the treatment of the beds during autumn and winter. Our correspondent says that her Asparagus makes good growth, but that the grass is thin and poor. This unsatisfactory condition may be due to many causes, such as the neglect of manuring the beds annually and allowing them to become overrun with weeds during summer and autumn. Possibly the roots are buried too deeply, and probably in uncongenial soil.

The roots may also have been too dry during a long spell of hot weather; but the greatest cause of all, no doubt, is the cutting of the Asparagus for too long a time in spring and early summer. It should be borne in mind by the grower that it is the grass of the current year's growth which forms the buds of the crown of the plant under the soil for the production of the following year's crop. If this is severely cut and for too long a time, and the bed is thus denuded of its full complement of grass, failure in the crop is sure to follow. The cutting of the Asparagus in Middlesex, where our correspondent lives, should cease on June 22. There is no excuse for cutting it beyond this date, as there are, or should be, by then plenty of early crops available to take its place, such as Peas, Cauliflower and young Cabbages.

While we are dealing with cutting Asparagus, perhaps a word on the subject may be useful to our correspondent and also to other readers. Amateurs are often puzzled to know how many heads of Asparagus to cut and how many to leave at the time of cutting. Some growers cut all the strong and the medium strong grass, leaving all the small and weak to grow on during the summer. Others leave some of the strong and medium strong grass to grow with the weak. The best and simplest way is, we think, to cut the whole of the heads of Asparagus which appear above ground, be they large or small, until the date above mentioned, and then to cut no more. The small shoots should be bunched up by themselves. They will be found invaluable for flavouring soups and for other purposes in the kitchen.

In the autumn, as soon as the grass is ripe, let it be cut off close to the ground, cleared away and burnt, saving any seed which may be wanted, and also clear away any weeds there may be at the same time. Rake off any loose soil or dried manure present on the surface of the bed into the alley (path) on either side. Have placed over the bed a layer of well-rotted farmyard manure 4 inches deep; then dig the alleys with a fork, but not more than 3 inches or 4 inches deep, for fear of injuring the roots of the plants. Throw some of this soil over the dressing of manure, covering it 3 inches deep. As soon as this is done, manure the alleys in the same way as the bed has been treated, but fork it into the soil deep enough only to bury it out of sight. Many growers make a mistake by ignoring the value of highly manuring the alleys, forgetting that some of the youngest and strongest roots are to be found here. Make all clean and tidy, and the autumn work will have been finished. We ought to add that at the time the grass is cleared away the bed should be closely examined, and if any blank spaces are found where roots have perished, as is sometimes the case, stakes should be affixed in such blanks to show where they are in spring (end of March), so that young roots may then be planted in them.

There is really nothing to do in winter, when the autumn work has been properly carried out, except that in very hard frost it would be well to cover the beds over with straw or litter, as we have known Asparagus roots killed by exceptionally hard frost. Salt should be applied at the end of March at the rate of a good handful to the square yard of bed. It helps to keep down weeds as well as to stimulate the growth of the Asparagus. It should never be applied in winter, as it is of a cold nature and has the effect of unduly lowering the temperature of the soil. It should be spread broadcast over the surface of the bed.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

ODONTOGLOSSUM CHIONE. — A very handsome variety with a dull red perianth on a white ground. The lip is spotted purple.

Odontoglossum Thais.—A truly noble form, heavily blotched with purple. These two varieties were shown by W. R. Lee, Esq., Plumpton Hall, Hayward's Heath. The parentage in both instances is unrecorded.

Lælio-Cattleya Prince of Orange.—A very charming variety obtained by crossing L.-C. Hippolyta and C. dowiana aurea. Intense chrome yellow is the chief colour; the lip is ruby red.

Brasso - Cattleya digbyano - Mossiæ Holford's variety.—An excellent white Brasso-Cattleya with a deeply-fringed lip of unusual size. Parentage: Brassavola digbyana × Cattleya-Mossiæ reineckiana.

Cypripedium Chapmanii Westonbirt variety.—A capital form of exceptional size for this section. The flowers are heavily spotted reddish brown on a pale ground. Parentage: C. bellatulum × Curtisii. These three novelties were shown by Lieutenant-Colonel Sir George L. Holford, K.C.V.O., Westonbirt, Gloucestershire.

AWARDS OF MERIT.

Lælio-Cattleya Denganii.—Flowers of a lovely golden yellow. This novelty was raised by crossing Cattleya dowiana and L.-C. Cappei first-class certificate variety. Shown by Francis Wellesley, Esq., Westfield, Woking.

Cypripedium Elatior The Shrubbery variety.—A grand flower of deep colour. The dorsal sepal is well spotted with deep purple. Parentage: C. leeanum × C. Baron Schröder. Shown by F. Menteith Ogilvie, Esq., The Shrubbery, Oxford.

Lælio-Cattleya W. J. Biggs.—This proved to be the third Lælio-Cattleya to receive recognition on this occasion. The flowers are of exquisite form, and a pleasing tone of deep yellow in colour. Shown by W. J. Biggs, Esq., Browning Road, Enfield, N.

Brasso-Cattleya Leucothœa.—A neat little variety with pure white flowers. Parentage: Brassavola nodosa × Cattleya Schröderæ. Shown by Messrs. J. and A. A. McBean, Cooksbridge.

Chrysanthemum Mrs. Walter Hemus.—A semi-double-flowered variety of reddish crimson colour. The variety appears to be of dwarf growth and free flowering.

Chrysanthemum Thomas Page.—One of the so-called pink-flowered decorative sorts, which, in common with many others this season, is displaying an open centre. These came from Mr. T. Page, Hampton-on-Thames.

Chrysanthemum Josephine (Single).—A delightful flower of fairly large size and of a clear butter yellow tone. It is most attractive.

Chrysanthemum Marjorie Lloyd (Single).—The flower-head is roundly formed, of medium size and coloured a bronzy terra-cotta tone. These were shown by Messrs. William Wells, Limited, Merstham.

Chrysanthemum Primrose Girl.—A charming single-flowered variety of deepest primrose yellow. The plant grows about eighteen inches high, and is covered by the elegant sprays of flowers. Quite an ideal pot plant, the dozen or more plants as shown being each a replica of the other. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Chrysanthemum Norbury Yellow.—Quite one of the most fascinating of the hybrid Pompon set, the model-formed flower-heads being coloured a rich yellow. A peculiar feature of the variety is its pale buff-coloured stems and petioles, the under-sides of the leaves being similarly characterised. Exhibited by Mr. George Kent, Norbury Park, Dorking.

Chrysanthemum Godfrey's Perfection. — An Anemone-flowered variety, and one destined, we believe, for great popularity. It is nearly pure white—we were informed it finishes absolutely so—and simply ideal in the naturally-grown sprays when it carries about half-a-dozen of its flowers. The habit, too, is perfection, the exhibited examples being about three feet high. Either in the cut state or in pots it would be most valuable. From Messrs. Godfrey and Son, Exmouth.

Chrysanthemum Miss Margaret Gray.—A single-flowered variety of large size and coloured a pale bronze.

Chrysanthemum Miss Phyllis Bryant.—Also a single-flowered variety of a pleasing soft yellow tone. These two varieties were exhibited by Mr. Philip Ladds, Swanley Junction, Kent.

Begonia Fascination.—A very handsome and beautiful variety of the winter-flowering class, of pale orange tone suffused with salmon. The exhibited plants were simply living bouquets of flowers, and these, arranged on short, stiff petioles and carrying them without the least support, rendered the plant ideal of its kind. The variety originated, we believe, from the crossing of an orange-flowered tuberous-rooted variety with B. socotrana. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Cæsalpinia (*Poinciana*) *pulcherrima.*—A very old, though comparatively little-known and withal most delightful West Indian shrub; hence, so far as this country is concerned, requiring warm greenhouse cultivation. The flowers, an inch or more across, are of scarlet and gold colour, slightly lacerated at their margins, and, being numerously produced in terminal corymbose racemes, are productive of a rich colour effect. They are, moreover, rendered doubly conspicuous by the 2-inch-long exserted filaments being coloured a bright vermilion. The pinnate leaves add elegance to a delightful plant. It is easily raised from seeds, and should be grown by lovers of beautiful flowers. Exhibited by Mr. G. Evans, The New House, Baldock, Herts.

NEW FRUIT.

Apple Sir John Thornycroft.—A dessert variety claimed to be the result of a cross between Newton Wonder and Cox's Orange Pippin. The fruits are of good size and flavour. This variety was submitted at the previous meeting (November 7), and an award of merit was granted after receiving a favourable report on the tree. Shown by Lady Thornycroft, Bembridge, Isle of Wight.

The foregoing were shown before the Royal Horticultural Society on November 21, when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

ROSE GARDEN.

Arch of Roses (*F. D.*).—For your proposed Rose arch you are desiring what rosarians have long desired, that is, a perpetual-flowering variety that would give as good effect as Dorothy Perkins. Taking all things into consideration, we should say Grüss an Teplitz would be as serviceable as any Rose you could plant. It is very showy and a good free bloomer. In order to cover the arch quickly, plant a standard having a stem about three feet long, and select one with a head not too bushy. Then plant two bush plants at the base, and allow them to grow next year without being pruned. We saw recently some fine beds of that grand Monthly Rose Fabvier, the plants being fully 6 feet high and giving a very bright effect in October, as they have done all the summer. You might, perhaps, plant this at the base. Nurserymen may advise you to procure long-shooted pot-grown plants, but they are not very good, and usually look very sparse upon an arch. American Pillar would not be of much use for bloom after July, although it is grand for foliage even now. Tausendschön does not flower for any great length of time. Possibly the new climbing Mrs. Cutbush will be good, but we have not yet proved it. Débutante gives a fair amount of bloom, and the old pink China is good when established, but it takes some years to get it over an arch.

Rose to name (*M. G.*).—The Rose is Reine Marie Henriette. It is not good on a wall, but better on an arch. It is badly addicted to mildew. Much better sorts would be Francois Crousse or Dr. Rouges.

Rose Lady Hillingdon for a smoky district (*F. E. H.*).—We should not care to recommend this variety for a smoky district. We think a much more suitable sort would be either Arthur R. Goodwin or Duchess of Wellington. They both possess a fine vigorous growth.

Repotting Roses (*G. D. R.*).—Usually it is advisable to repot forced Roses each season, but only if they have made plenty of roots and the ball of earth is well matted with them If you find on turning out the plants that roots abound, repot at once, although this should have been done last month. Those plants that are not well rooted could be top-dressed. This is done by moving an inch or 2 inches of surface soil and replacing this with good compost consisting of two parts loam, one part well-rotted manure and some bone-flour added liberally. This compost would do if you repot. After doing this put the plants outdoors in the sun, and leave them there until frost threatens; then protect or put in a cold frame. To bloom the plants in March and April, they should be pruned in January and placed in the greenhouse.

Selection of Roses for Ireland (*R. V. Y.*).—Your selection, on the whole, is a very good one. Among the white and pale yellows we would suggest Amateur Teyssier, Admiral Dewey and Peace instead of Kaiserin Augusta Victoria, M. Grant and Gloire Lyonnaise, which is not a free bloomer. Grace Darling is pinkish. It would grow all right. Among the pinks we would suggest Mme. Jules Grolez instead of Mrs. W. J. Grant. Marquise Litta is red, but it should succeed, although not a strong grower. Of the reds and crimsons, Liberty should be replaced by General Macarthur, and Marquise de Salisbury by Ecarlate. Camoens and Eugène Resal are both pinks, but they would grow well. You should certainly add Mme. Ravary, Prince de Bulgarie, Pharisaer, Joseph Hill, Mrs. A R. Waddell, George C. Waud, La Tosca, Mme. Abel Chatenay, Gustav Grunerwald and Mme. Leon Pain, as they are all first-rate.

THE GREENHOUSE.

Injury to Chrysanthemum leaves (*E. J. T.*).—The excessive discoloration of the leaves is undoubtedly due to some cultural defects, and in addition they are attacked by rust. You speak of the plants having been grown under glass, and if such is the case, the cause of the trouble is not far to seek. Chrysanthemums during the growing season should be stood out of doors, and so situated that the plants have a free circulation of air around them. Again, if the plants suffer in any way, either from shortage of water or lack of feeding when it is required, the leaves are very apt to go the way of those sent. Some varieties are in this respect more liable than others. Another cause of the foliage being disfigured is want of a free circulation of air when they are taken under glass. This may be set up by overcrowding, or by the structure being faulty in this respect. Following on this decay comes the fungus attack known as the rust, which rapidly spreads by means of spores. Spraying with a solution of potassium sulphide will check the rust, but in your case it is not the primary cause of the trouble. At all events, now it has gained a foothold on your plants, all decaying leaves should be gathered and burnt in order to prevent the trouble spreading. Nothing can now be done to improve your plants, but another season the points above dwelt upon may be taken into consideration.

Maidenhair Fern (*D. B.*).—Grown in a cool structure and with a damp atmosphere, the Maidenhair Fern is naturally more or less deciduous, and, as far as we can judge from a single frond without a word as to the treatment, the plant, we should say, is about to lose all its fronds. If so, it should be kept fairly dry during the winter and started in gentle heat in the spring. When the young fronds are about an inch long, the plant may be repotted in a mixture of loam, peat and sand.

Single and decorative Chrysanthemums (*R. K.*).—Donald, chestnut; Mabel Goacher, white, shaded blush; Masterpiece, rosy salmon; Resolution, rosy pink; The Dome, salmon; Walton Bradbury, pure white; Kate Westlake, crimson; Florence Gillham, pure white; Blush Star, blush; Kitty Riches, pink; Purple Prince; The Downs, rosy lilac; Pretty Polly, golden orange; and Dorando, lemon yellow. These are early and very free-flowering. Decorative varieties: Countess, pure white; Glory of Merstham, hydrangea pink; Fée Parisienne, deep mauve; Goacher's Pink; James Bateman, pure pink; Le Cygne, pure white; Mrs. Roots, pure white, stiff flower-stems; Province, bright pink, gold points to florets and centre; Ralph Curtis, cream; Mignon, rosy mauve; Leutz, very deep pink; Tapis de Neige, pure white; Roi des Blancs, white; White Quintus; Touraine, porcelain; Pink Aster, lilac pink; and Polly, deep orange. These varieties are of good dwarf habit and are suitable for pots or borders.

Winter treatment of Agapanthus (*S. S. Ward*).—The winter treatment or care of the Agapanthus is simple in the extreme, and resolves itself into keeping the plants free from frosts. In Southern France, as in Southern England, established ground plants would be safe enough in the open garden with no other protection than a light covering of ashes, Cocoanut fibre or litter. Pot or tub grown plants would differ from the above by reason of the exposure of their roots to climatic as also to atmospheric influences; hence slight protection would be necessary. This, however, is of so simple a character that in your case it might be afforded in any shed, outhouse, cellar, greenhouse, or corridor which excludes frost. Winter is the resting period of these plants, and little or no water would be required between November and February. Quite a large number of the tub-grown examples that adorn English terrace gardens in the summer-time are huddled together for months in a cellar, shed, or orangery, with nothing more than a covering of litter, for many weeks on end. Hence, if you keep frost at bay, you have little to fear.

FRUIT GARDEN.

Outdoor Peach trees (*Hal*).—The object of partially pruning a Peach or Nectarine tree immediately the fruit is gathered, by cutting away some of the branches that have borne fruit (whether under glass or out of doors), is for the purpose of admitting more light and freer circulation of air among the branches which are left, in order the more effectually to ripen such wood and to plump up the fruit-buds, as it is these shoots which will in due time bear the fruit of next year. As a rule, there is no difficulty in ripening the wood of Peach and Nectarine trees when grown under glass; but when grown on walls out of doors this difficulty is often experienced, and much loss and disappointment in the failure of full crops result.

Walnut tree to move (*Cecil Beane*).—The tree could be safely moved with care, and any time this month is a good time to move it. We advise you to engage a responsible and well-known nurseryman to do the work who employs skilful men, and stipulate that some good fibrous loam should be added to the soil at the time of planting, say, half a cartload.

Apple for inspection (*Newcastle*). — The Apple sent is suffering from what is known as glassiness, a condition due to the passing of water from the cells of the flesh into the spaces between them, which are, in the usual case, filled with air instead. The actual cause of this is possibly an extra supply of water to the fruit, effected at some time during its development, but whether this is so or not is not known with certainty.

Selection of Apples (*C. E.*). — The following, we think, would be desirable additions to the varieties you already possess: Dessert—Ellison's Orange (excellent in every way), ripe October and November; Old Nonpareil, ripe December and January; King of Tompkins' County, ripe January and February; and Barnack Beauty, ripe January and February. Kitchen—Potts' Seedling (better than Ecklinville), ripe August and September; Grenadier (pyramids or bushes), ripe October; Lord Derby, ripe November and December; and Newton Wonder and Bramley's Seedling (standards), ripe February to March. You may add another, James Grieve, as it is a good Apple; but we think you will like Ellison's Orange better.

To remove Blackberry bushes (*F. T.*).—The first thing to do would be to cut away all the old wood possible, in order to reduce the size of the plants and to make them more easy to move. In carrying out this work it will help you greatly to bear in mind that the growths of this year will bear fruit next year; therefore you must not cut these away, but the older ones, which will never bear fruit again. The plants may be moved with safety, provided care is taken in doing the work and an ample quantity of healthy roots preserved. They should be planted 3 yards apart, and the soil pressed very firmly about the roots when planting. If the plants are very old, it will be better to take side slips (with roots attached) and plant these instead. The Bramble also may be freely propagated from the seed of the fruit.

FLOWER GARDEN.

Crinum (*A. M. C.*). — The Crinum sent is C. Moorei album. In your favoured Devonshire climate it should be quite hardy if planted in some good, deeply-dug soil and at such a depth that only about six inches of the bulb appears above the surface. If the weather is at all severe, the crowns may be protected by a little Bracken or dried leaves.

Making a Lily pond (*G. H. M.*).—In the first place, a Lily pond should exist in a low-lying spot, a natural depression, as though formed there by Nature for the draining of the surrounding land. If you have command of such a spot not much overshadowed by trees, and, better still, if in the open, make a beginning there. The process of making will largely depend upon the soil, also the cost. For example, if your soil be of a clay-like or retentive nature at 2 feet or 3 feet deep, the construction will resolve itself into a mere question of excavating and, finally, puddling the bottom and sides with tempered clay, and with a good water supply you would have but little to fear. If, on the other hand, your soil is of sand or gravel, you will have to form the bottom and sides of concrete, fine clean gravel and cement of 6 inch thickness in a three and one proportion, mixing these well together before wetting, adding water by degrees subsequently and mixing well. To make quite water-tight, a surface of washed sand and cement gauged at two and one, *i.e.*,

two parts sand and one part cement, should be given, and when dry add the soil for the plants. Strong turfy loam, with one-third manure, would be a good soil mixture for most aquatic plants. The soil should be arranged in hillocks irregularly. By marking the soil positions with Bamboos, the plants could be sunk into their places in weighted baskets at any time. A water depth of about three feet would do for the stronger-growing sorts. You really require the assistance of a handy man or a navvy for carrying out the details.

Nymphæa stellata (*Miss W.*). — None of the varieties of Nymphæa stellata is sufficiently hardy to endure frosts with impunity. In the South of England the plants are grown in tanks of water slightly warmed by means of hot-water pipes. In a summer like that of 1911 even this could be dispensed with, for the plants flowered for weeks together. The plants, however, are so near akin to hardy that only slight protection is required, and they are so beautiful and so profuse in their flowering as to be worth any little extra care or expenditure to make them a complete success. In your locality (Yorkshire), in an ordinary way the plants would not winter safely, though in the exceptional circumstance of the water being supplied from an artesian spring, this dictum might require modification. Generally speaking, water plants of doubtful hardiness are rendered absolutely so by deep immersion. We are not sure, however, that this has been successfully tried in the case of these blue-flowered forms. We are indeed pleased to hear of your success generally with Water Lilies. The blue-flowered varieties may be obtained from the leading dealers in hardy plants.

TREES AND SHRUBS.

Austrian Pines (*F. B.*). — You had better leave your two Austrian Pines until the end of March or the beginning of April before you move them. Providing the work is done carefully at that season, they ought not to suffer harm. We advise you to plant a good shelter belt of Austrian Pines if you have room, to protect your garden from wind. In the event of you deciding to do so, we should advise you to obtain quite small plants, not more than 12 inches or 15 inches in height, for they will establish more readily than older and larger plants.

Shrubs in a damp position (*Dolphin*).—Golden Privet is not a suitable plant for the position you describe. Willows of various kinds would do better. Such sorts as the red and yellow stemmed varieties of Salix vitellina would be very effective in winter, and you could keep them to any desired height by cutting them back in spring. Other plants which would be likely to succeed in the position are Tamarix gallica and the Sea Buckthorn (Hippophae rhamnoides). Olearia Haastii might be tried if an evergreen is desired. We are afraid that the position is too exposed and likely to be too damp for Golden Privet ever to do really well.

MISCELLANEOUS.

Diseased bulbs (*A. M.*).—Several of the bulbs sent have been attacked by the grubs of the Narcissus fly, and in two instances fully-developed grubs were found within the ruined bulbs. Other bulbs were teeming with myriads of mites, well-known destroyers of these and other bulbs. If those sent represent the condition of the stock, your only remedy is to consign the whole lot to the fire, since no soil treatment could possibly reach the pest to destroy it or to do good to bulbs already ruined. By destroying the bulbs wholesale by fire, you would be doing something to check the spread and increase of the pest, and by clearing the ground of their main food supplies, the mites at least would presently be starved out of existence. Then, by resting the soil for a time and dressing with lime or one of the advertised soil fumigants, it might be restored to a good condition. Above all things, avoid the "cheap" in buying these bulbs, for they are not only this, but often "nasty." The best English growers possess healthy stocks of bulbs, and these are the only ones likely to give general satisfaction. A year ago the Narcissus fly was scheduled by the Board of Agriculture under the powers conferred upon them by the Diseases and Pests Act, and those in whose garden it is found are bound, under a penalty, to report its occurrence to the Board.

Sowing a lawn (*Daisy Bell*). — You might try the following Grasses on your lawn: Cynosurus cristatus (Crested Dog's-tail), Festuca ovina tenuifolia (Fine-leaved Sheep's Fescue) and Poa pratensis (Smooth-stalked Meadow Grass). Mix these in equal proportions; then use a little seed of Yarrow or Milfoil (Achillea Millefolium) with the grass seed at the rate of about one part in twenty. Yarrow stands drought well and will grow in the shade of trees. It is, however, rather coarse. September is the best month for autumn sowing, so you had better wait, as it is so late, and sow the seed about the second week in March.

Cypripediums (*A. H. B.*).—The Cypripedium leaves sent are very badly attacked by thrips, and to get rid of them both the upper and the under surfaces of the leaves should be sponged with soft soap and water. It will also be as well to vaporise the house with nicotine

"Won't grow" disease in Potatoes (*H. H. B.*). —There is no sign of fungus disease on the Potatoes sent. They appear to be suffering from what has been called the "won't grow" disease, a condition which is common, but not at all well understood. It is, however, much more prevalent in seed Potatoes grown in the South or in hot and dry places than in the North, where the climate is more moist and cooler.

Names of plants.—*G. G.*—Sparmannia africana. Requires cool greenhouse treatment.——*W. W., Campden.* —Panicum miliaceum (the Millet).——*J. J. W., Walmer.*—1, Francoa ramosa; 2, Crinum species, impossible to identify without flowers.——*W. G., Hitchin.*—1, Spiræa Thunbergii; 2, Rhus Cotinus.

Names of fruit.—*R. Read, Ealing.*—Beurré Rance. ——*J. H. Clevedon.*—1 and 3, Cox's Orange Pippin; 2, King of the Pippins.——*E. P.*—A, Bess Pool; B, Wyken Pippin.——*J. R. N., Campden.*—Old Hawthornden.—— *C. B. W.*—1, Fearn's Pippin; 2, Sturmer Pippin; 3, Nelson's Codlin; 4, Blenheim Orange; 5, Hawthornden; 6, Hoary Morning; 7, New Hawthornden; 8, Pickering's Seedling.——*P. E G.*—1, Cox's Orange Pippin; 2, Allington Pippin; 3, Lord Raglan.——*J. E. C.*—Pear Catillac.

THE EDITOR'S TABLE.

VIOLETS FROM WIMBLEDON.

Mr. W. Gill, The Gardens, Oakfield, Wimbledon, sends us flowers of Violet Marie Louise. These were of excellent colour and substance, and, from a locality so near London, highly creditable to Mr. Gill's cultural skill. The following letter accompanied the flowers: "I am sending you a few of my Marie Louise Violets, and would like your opinion of them as grown so near London. It is most difficult to grow good Violets in this neighbourhood, and by many considered impossible. In spite of the heat and drought this year, my plants were the healthiest crop I had in the garden, although growing quite in the open and on light soil. They were not mulched, but were kept well watered, and there is not a trace of red spider about them. Since being planted in the frames in September we have had a splendid wealth of blossom."

VERONICAS FROM SOMERSET.

Mr. H. Moore, Higher Woodcome, Minehead, Somerset, sends beautiful flowering sprays of shrubby Veronicas from the open, the colours of flowers and foliage being particularly fresh and good. Among the best were V. angustifolia, with narrow leaves and white flowers; beautiful crimson and blue coloured forms of speciosa; and the variegated form of Andersonii. Mr. Moore states that these are from the second crop of flowers this year.

COLLETIA CRUCIATA FROM JERSEY.

Mr. G. Giffard, Belmont, Mont-au-Prêtre, Jersey, sends a flowering spray of this interesting shrub with the following note: "I enclose a small branch of Colletia cruciata for your table, hoping that the blooms will not have fallen off during the rather long journey from here. This curious plant is growing in a bed of shrubs facing east, and is in a rather shady spot, which may account for its flowering so late in the year (November), though the summer's drought may also be the cause of this. The flowers, though not conspicuous either in form or colour, are delightfully fragrant, the scent resembling that of Hawthorn, and they are so thickly produced on the queer spines that they make an effective show."

SOCIETIES.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

AT the fortnightly meeting held in the Church School Sandhurst, on Tuesday, November 14, there was a goo attendance of members. A most excellent paper o "Ferns" was read by Mr. J. Evans, gardener to Mr. W Napier-Church, Snaprails, Sandhurst. The lecturer, who well known locally as a most successful cultivator of the beautiful plants, gave full instructions as to the raisin of stocks from spores, divisions and rhizomes, suitable com posts for potting and the after-culture, also a list of th most useful kinds for stove and greenhouse culture. Severa of the members took part in the interesting discussion tha followed. At the close a hearty vote of thanks wa accorded Mr. Evans for his very instructive paper. Mr. W Townsend, Sandhurst Lodge Gardens, staged eighte pots of Primula malacoides, which were much admired.

CHELMSFORD CHRYSANTHEMUM SHOW.

THE annual exhibition of the Chelmsford and Distri Chrysanthemum Society was held in the Corn Exchang on the 14th and 15th ult. In spite of the very tryin season, the entries were within five of those last yea The displays of fruit, both competitive and trade, we exceptionally fine, and altogether the show was a sati factory one. The cup for the best group of single Chr santhemums was taken by Mr. F. G. Freeman, garden to E. M. Bristowe, Esq., who won the premier class f the first time. The second group, set up by Mr. W. Heat gardener to Sir Daniel Gooch, was conspicuous for i skilful arrangement, for although it was closely faced wit flowers, the group was gracefully light in construction and, in fact, was quite a model in its way. The thir shown by Mr. C. J. Simpson, was noticeable for its mass of well-coloured blooms, smaller in size than most of thos in the other groups, but providing just the flowers tha would be found most useful in house decorations. Th cup for the best group of Japanese Chrysanthemum went to Mr. J. Burrell, gardener to W. W. Duffield, Esq who scored for the first time in this section. The be Japanese bloom in the show was a very deep flower name Reginald Vallis, shown in a vase class by Mr. C. E. Searle gardener to Mrs. Harrison Gray; and Mr. P. E. Wisema had the best incurved—a cream bloom named Mrs. P. E Wiseman, which was certificated this month. Mr. Wisema also received the National Chrysanthemum Society certificate for the best stand in the open classes; whi Mr. C. J. Linn gained a similar distinction among th amateurs.

The fruit was excellent, and the judges recommende that a gold medal be given to Messrs. W. Seabrook and So for a large non-competitive collection of really wonderf Apples. For a collection of fruit Mr. C. E. Searles wa first; and for three bunches of Grapes the premier awar went to Mr. W. Heath, gardener to Sir Daniel Gooch, Bar (see illustration on page 584). For a collection of veg tables Mr. Searles was first with a superb lot.

WOOLTON CHRYSANTHEMUM SHOW.

NOVEMBER 15.

THIS show sustains its character as one of the most tast fully-arranged exhibitions in the district, which was free voiced at the opening proceedings. The entries we about fifty above last year, so that the room was taxed t its utmost capacity. Cut blooms.—For twenty-fou Japanese, Mr. G. Haigh, gardener to Sir W. H. Tate, Bart took the first prize, including the new challenge vase pr sented by W. Tod, Esq. Mr. George Eaton, gardener t W. Tod, Esq., was second, and Mr. J. Stoney, gardener t Lieutenant-Colonel Gaskell, third. For eighteen bloom Mr. J. Clarke, gardener to Mrs. Clark, led the way; and fo twelve, Mr. T. Keightley, gardener to P. W. Barr, Esq had the best. Eighteen incurved: Mr. J. Clarke had th winning stand, and for twelve, Mr. H. Howard, garden to A. S. Mather, Esq., was first. Mr. Stoney had the be Japanese in the show with Mrs. Marsham, and Mr. J Clarke the best incurved with Clara Wells. For te Japanese, with long stems, in a vase, Mr. G. Haigh score with a capital combination. Nine vases of single nine blooms in each vase, brought out three splendid lot Woolton has been noted for its splendid singles, bu undoubtedly the first-prize lot was the best yet stage The size—about six inches—and colouring were deservedl admired, and Mr. Keightley, the winner, thus becomes th possessor of the challenge trophy on the eve of his remov from Woolton. Altrincham Crimson, Meta, A. K. Aski and G. W. Forbes were charming. Mr. G. Eaton and M H. Howard were placed as named with exhibits of muc credit. Three vases of singles: Mr. W. Wilson, garden to W. Cunningham, Esq., led, and Mr. J. Maddocks wa first for both bouquet and sprays. Chrysanthemums i pots.—Mr. R. Hitchman, gardener to H. G. Schintz, Esq came out in great form as a novice, securing the leadin awards with splendid plants for three large-flowering, on Japanese, one incurved and one single variety. Mr. W Wilson won for one reflexed, one Pompon and on Anemone, showing good examples in training. In th fruit classes, Mr. J. McColl, gardener to J. W. Hughe Esq., gained firsts for black Grapes, well coloured, one dis of culinary Apples, three dishes of dessert Pears and on dish of dessert Pears. Mr. W. Wilson had the best whit Grapes with Muscat of Alexandria, well coloured, and on dish of stewing Pears. Mr. G. Haigh led for three dishe and one dish of dessert Apples, also for three dishes o culinary Apples. Mr. H. Hudson, gardener to J. F Hinshaw, Esq., won for one dish of culinary Apples. Th vegetable and miscellaneous classes were well filled wit creditable produce.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SIX POPULAR ORCHIDS.

THE bewildering variety of Orchids, many justly claiming to be popular, renders a selection not a little difficult. Depending very much on individual taste, no choice can be expected to receive universal assent, although four, perhaps, of every six may be found to agree. The essential characteristics of a favourite are the readiness with which it responds to cultivation and its utility for floral work. To which, then, of these singular yet charming friends of ours shall be given preference? Surely we shall not be far wrong if we begin with the queen of cool-house Orchids, Odontoglossum crispum!

In this country it succeeds best in a temperature of from 50° to 60°. A rather small, well-ventilated house, admitting plenty of light, is the most suitable. It must be shaded from the sun's direct rays during the warmer months by means of blinds that can be drawn up in dull weather. A still, moist atmosphere is essential, and an occasional fine spray syringing with clean rain-water is beneficial. The water should not be allowed to touch the flowers, however, or they may become spotted with damp. The plants ought to be potted firmly, using a compost of rough fibrous peat, living sphagnum moss and silver sand. The pots must be well drained. Care should also be taken that they are not too large, and that the plants are kept well up in the soil; otherwise they are liable to rot at the base. Some of the best sphagnum moss should be reserved for the tops of the pots, and tightly, uniformly pressed into position with a pointed stick. This gives a finished appearance to the whole, and also holds sufficient moisture for the well-being of the plants. Quite as popular perhaps, although different in character, is the magnificent Cattleya Mossiæ.

It requires a warmer temperature than Odontoglossum crispum, and needs to be shaded only from the very hottest sunshine. It can scarcely have too much light. Although Cattleyas will grow fairly well on blocks, they succeed much better in pots or baskets, and have the advantage of requiring less attention when grown in this way. For potting material good fibrous peat, living sphagnum moss, sharp silver sand and a few pieces of charcoal should be used, care being taken that the pots are thoroughly drained. The plants should rest upon the soil elevated somewhat above the rims of the pots, as it is very essential that all water should pass quickly away from them. They enjoy a moist atmosphere and a fairly abundant supply of water, but the syringe must be used with great care, as much damage may be done by water lodging in the plants. After a season's growth water must be gradually withheld to allow of a period of rest.

The third species in point of popularity is the old favourite Dendrobium nobile, which still holds its own even among the many newer introductions. It is not particularly difficult to cultivate, and will thrive well and display its beauty to better advantage when suspended from the roof in baskets or upon blocks of wood. It is equally well adapted for pot culture. When grown upon blocks, sphagnum moss alone is sufficient for the roots; but when in baskets, peat should also be used. For pot culture the compost should contain a fair amount of charcoal, and the plants should be potted firmly well above the pot rim. Dendrobium nobile prefers a warm temperature, though it is not so particular in this respect as are other species of Orchid. During the resting season it is better kept in a cool house with only just sufficient water to keep the pseudo-bulbs from shrivelling.

Cœlogyne cristata is one of the most useful and satisfactory Orchids we have. The best results are obtained when the plants are grown in well-drained pots with a compost of sphagnum, peat and a little silver sand. It is detrimental to their well-being if the soil becomes in any way sour. They require a warm temperature and an abundance of water when growing; but when growth is fully developed, a lower temperature and only a little water are necessary. There are several newer varieties of cristata which greatly enhance the value of the species; this applies also to Dendrobium nobile. These two species differ from those dealt with previously, in that there is scarcely any variation in the flowers of the original variety.

This merit is shared by the next species, the free-flowering, ornamental Lycaste Skinneri. This Orchid, being of very easy culture, is one of the most valuable to the amateur grower. It requires little heat and does well in a mixture of rough fibrous peat and sphagnum moss. It can scarcely be given too much water, yet,

like most Orchids, it must be carefully drained. It does not need much water while at rest, though it should never be allowed to get dry.

The last species, Cypripedium insigne, is one of the commonest of Orchids, and one of the best for a person wishing to begin Orchid-growing to start with. The extreme interest and importance of the genus Cypripedium—Lady's Slipper—call for its representation among the six favourites. Although insigne is not by any means the most beautiful species, it is certainly the best known. It succeeds well in a compost of peat, sphagnum, leaf-mould and a little sharp silver sand. It should be potted like any ordinary variety of plant—a little below the level of the top of the pot. Drainage is very important, and, as the Cypripedium has no pseudo-bulbs, it should never be dried off. It enjoys a moderately warm temperature and can be grown quite successfully among other plants.

Cheshunt. THOMAS BONES, JUN.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 11.—United Horticultural Benefit and Provident Institution's Committee Meeting.

December 13.—North of England Horticultural Society's Exhibition at Leeds; East Anglian Horticultural Society's Meeting.

National Rose Society's annual meeting.—Owing to a misunderstanding, the date of this meeting was given in our issue for last week as December 7. It should have been December 14. The meeting will be held at the Westminster Palace Hotel, Victoria Street, Westminster, at 3 p.m.

National Chrysanthemum Society.—The annual dinner of the National Chrysanthemum Society was held at the Holborn Restaurant in the Royal Venetian Chamber on Wednesday, November 29. The genial president of the society, Sir Albert Kaye Rollit, LL.D., D.C.L., was in the chair, and the dinner was well attended by ladies and the *élite* of the Chrysanthemum world. A very pleasing interlude in the evening's arrangements was the presentation to the president of a handsome bound address. This presentation was made by Mr. Thomas Bevan on behalf of the committee, who desired to place on record an appreciation of their model president. The dinner-tables were admirably decorated with a lavish display of Chrysanthemums.

National Dahlia Society.—The annual general meeting of the members of this society was held at the Hotel Windsor, Victoria Street, Westminster, on the afternoon of the 28th ult. Mr. George Gordon, V.M.H., was in the chair. The report and balance-sheet, the latter showing a balance on the year's working of £8 6s. 8d., were unanimously adopted, and an honorarium of £8 presented to Mr. E. F. Hawes for his services as hon. secretary. Only one show is to be held next year, on either September 12 and 13 or September 13 and 14, whichever can be most successfully arranged. Owing to the resignation of the presidentship by Mr. E. Mawley, on account of ill-health, Mr. George Gordon was elected president and Mr. Joseph Cheal chairman of committee.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Carnation White Wonder.—I note your remarks *re* Carnation White Wonder on page 572. Allow me to point out that I exhibited this variety in a trade group at the Olympia Show, and also at the Royal Agricultural Society's show at Norwich, this past season. Both shows were, as you know, long before September. I saw the variety in America, and, considering it good, purchased a stock of 2,000 in January last.—C. ENGELMANN.

Lilium sutchuenense.—In THE GARDEN of November 25, on page 571, you have a few notes on a very effective grouping of Lilies flowering in the American Garden at Kew. May I suggest that the Lily in bud in front of the bed is not Lilium sutchuenense as stated, but looks to me



ANEMONE SULPHUREA ROOTS, SHOWING THE DIFFERENCE BETWEEN THE IMPORTED ONE ON THE LEFT AND THE NURSERY-RAISED ONE ON THE RIGHT.

in all probability like L. Humboldtii, or possibly L. pardalinum; it certainly belongs to one of these groups. L. sutchuenense is very distinct in character, and resembles a slender L. tigrinum more than any other variety, the foliage being very narrow and scattered, whereas the foliage of the variety illustrated has whorls, signifying its affinity to the Martagon group. Since writing the above notes I find, on looking more closely at the illustration, that in the background of the picture there is just discernible a group of a Lily which in all probability is L. sutchuenense, tall and graceful and bearing numerous flowers. I trust these few remarks may draw more attention to this graceful Lily, which is a great addition to our gardens.—R. W. WALLACE, *Colchester*. [The tall Lily in bud shown in the foreground of the illustration in question is L. superbum. The new species, L. sutchuenense, is, as Mr. Wallace suggests, faintly discernible in the background. The flowers are red, and they are almost lost in the dense greenery which surrounds them, owing to the colour value of red and green being much alike to the photographic plate. We are grateful to Mr. Wallace for bringing attention to this oversight.—ED.]

Awards for seedling Roses.—The Rev. J. H. Pemberton is, without doubt, an eminent rosarian, but he presents himself to me as a bad logician. His article on the National Rose Society's awards to seedling Roses seems to be throughout condemnatory of those awards, and specially so in his last paragraph, in which he replies to some pertinent questions. Here she tells readers of THE GARDEN that the gold medal is *not* always awarded to the best Rose, which is strong condemnation; also that there are Roses unawarded which may be better than the gold medal Rose—still condemnation; and, thirdly, that such an award does not help the public in selecting the best Roses. What stronger reasons for withholding the medal award? Then, with an astounding right about face, Mr. Pemberton says "Yes" in reply to the question as to whether making such award is the best way to ensure perfection. [This reply was qualified.—ED.] Obviously, his previous replies forcibly show that so far from being the best way to ensure perfection, it is wrong and misleading. If the award is made to a poor variety, how it can encourage a raiser of such a variety passes comprehension, except to produce other inferior varieties.—A. D.

——Observing that you invite communications on the best method to be adopted to enable the judges to place themselves on more familiar terms with the new seedlings and sports, the scheme which suggests itself to my mind is that the National Rose Society should establish a system whereby inspection of the trees should take place in the nurseries of the growers after due notice from them of their intention to compete, the Rose to be identified in an early stage, to the satisfaction of the inspectors, by name or number. A detailed report or reports in writing, in the discretion of the inspectors, affording their description of an l opinion upon the Rose, its capabilities and how it should be classified, could then be furnished to the society for the information and assistance of the judges in considering the making of their awards. The report, provided that the Rose had been kept under observation for a long enough period, might be made to contain all those essentials which in a measure would be a suitable substitute for the information obtainable by the more costly process of establishing trial-grounds. The travelling expenses of inspectors might be, to some extent, defrayed by a special entry-fee; but as the majority of raisers of seedling Roses are generally to be found in the same localities year after year, the expenses of working some such scheme as I suggest ought not to be ruinous. Any award made on official report should be distinguished, say, by the letters "O.R." or some similar appellation, and would naturally be regarded as of a higher order than an award made in the absence of "O.R." as at present—in other words than the award made wholly on the description of the raiser. In making these suggestions I do not impute to the raisers any desire to mislead or insinuate that they require watching but as in the practice of both law and medicine the mind of the general practitioner often becomes too familiar with the unimportant details of his case and loses sight of some of the more salient points until assisted by the specialist, so the raiser of the Rose to which he has afforded infant nurture

may quite inadvertently, in a paroxysm of admiration, put his case a little higher than can be proved by the searching tribunal of practical experience. Paying a high price for a new Rose, tending the trees with a mother's care and ultimately finding them to be misdescribed evoke things better left unsaid. "How sharper than a serpent's tooth it is to have a thankless child."—R. C. W. D., *Southampton.*

Tap-rooting alpines.—Adverting to my original note on this subject under the heading of "Acantholimon glumaceum," and published in your issue of September 30, and Mr. Reginald A. Malby's reply thereto contained in your issue of November 4, page 530, I think a little further light might with advantage be displayed. I am enclosing a photograph of a well-known alpine, showing unmistakably not only how tap roots are made, but how they are emphasised and extended. The plants shown in the picture were photographed on one and the same plate at the same moment; hence what is seen is relative as well as comparative. The plants shown, too, are one and the same species, viz., Anemone sulphurea, that on the left of the picture being a portion of a collected plant, and that on the right a London-raised, nursery-grown seedling example of three years old. Obviously, such things are very much creatures of circumstance. In other words, the tap roots of many alpines may be governed or controlled—"made," as I have termed it—emphasised or modified, entirely by circumstances or environment, since the plant of the upland meadow on the one hand and deep fissure growth on the other will, in all probability, be as distinct in their root-producing characteristics as those shown in the picture. Mr. Malby appears *not* to agree with my statement that tap roots are virtually made, and says that "to expect that the tap root would be to any extent modified in length appears to me extremely doubtful." The evidence of the picture, however, should at once remove any such doubt. Moreover, Mr. Malby, earlier in his note, emphatically endorses the fact that such roots *are modified by circumstances*, for he says: "Obviously no plant originating from a cutting can have such a root." Hence all the cuttings of Acantholimon that he and I and others have raised are not of a tap-rooted nature. In the last-given quotation Mr. Malby cuts away the bough on which he stood. And while the seedling plant unmolested and undisturbed may produce tap roots *in extenso*, the very disturbing of the plant and the severing or mutilation of such roots in conjunction with replanting in new conditions, more particularly of soil and soil depth, will of a surety cause that plant to alter its course in the matter of rooting. The divided plant is on all fours with this. Finally, so far as the Acantholimon is concerned, what is true of the cutting-raised plant is also true of that raised from root-cuttings, than which no method of propagation is more quick, reliable, or prolific of good results. In this respect the plants resulting from seedling-raising and growth cuttings are not worthy of comparative mention. That some plants are prone to make tap roots naturally every grower of alpines knows quite well, and one has but to recall some of the Silenes, Gypsophila, Œnothera, Lewisia, Arnebia, Anthyllis, Phyteuma comosum and Campanula Mariesii in support of it. That such tap rooting may be modified by circumstances, Mr. Malby's own words and the accompanying picture go to prove unmistakably.—E. H. Jenkins.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

CUCUMBERS.—The utmost care will be necessary to keep up a supply of this important salad during the next few weeks. It is not advisable to leave the fruits till they have reached the size it is usual to cut them in the summer. It must be remembered that at this time of year the fruits mature very slowly, and if they are left too long they become tough and bitter. Moreover, there is more likelihood of the plants continuing to bear during the greater part of the winter if the fruits are cut at a moderate size. The fruits will keep fresh for twelve or fourteen days if laid on slates in a cool cellar. Cut off old leaves, stop the shoots at the third leaf and tie them thinly over the trellis. Water carefully with lukewarm water and diluted liquid manure. Syringe the foliage only on very fine days, but a moist atmosphere must be created by frequently damping the walls, &c., in the house. Top-dress with a little fibrous loam and rotted leaves when roots appear on the surface. Maintain a night temperature of 65° or 70°; during the day it may rise to 80° by the sun's influence, and on these occasions a little air must be admitted to sweeten the atmosphere. Towards the end of the month a sowing should be made to replace the old plants. If a suitable structure is available, fruits may be cut from these plants about the middle of March.

Tomatoes.—The plants which were sown in October are now ready for a shift into 6-inch pots. The weather has been very favourable for these, and they are looking very strong and healthy. The potting material must be of a light character to encourage free root action, and the pots must be clean and well drained. It is not advisable to ram the soil too firmly at this time of year. Keep the plants growing quite close to the glass in a temperature of about 60°, and never allow the glass to remain dirty if fogs have been prevalent. The fruiting plants must be encouraged to develop their fruits by the judicious application of stimulants. A greater quantity of foliage may be removed now than is advisable at other seasons of the year, and the plants should be "stopped" if this has not already been done.

Early Carrots.—Preparations for sowing a batch of Carrots may be made now in a frame. Collect a quantity of leaves for making a hot-bed, from which sufficient heat can be had for growing this crop, provided the frame is well covered by mats or litter to keep out frost. Cover the hot-bed with 2 inches or 3 inches of light soil, on which sow the seeds broadcast and cover lightly with soil. Early Scarlet Horn is an excellent variety for this purpose.

General Remarks.—Broccoli which are now fit for use should be dug up and placed in a pit. It will be advisable to anticipate a hard spell of weather by digging up a quantity of roots of all kinds and storing them in a shed ready for use. Parsnips are better used straight from the ground; therefore a portion of the quarter may be kept covered with Bracken or litter.

Royal Gardens, Windsor. E. Harriss.

FOR THE NORTH AND NORTH MIDLANDS.

Fruit Garden.

Pruning.—A start may now be made with the pruning of all fruit trees and bushes. Those in the open quarters should be taken first, so that all prunings and rubbish may be raked up and burned before any manure is put on or before any digging is done. It is important, especially with Apple trees, that the operator should have some knowledge of the different varieties and their habit of growth, as some kinds form fruit-buds on the points of the current season's growth. The shortest of these shoots should be left for fruiting, and can be cut back next year.

Young Standard Trees.—In the case of young standard trees it is necessary to cut the shoots back to about a third of their length, in order to lay a good foundation for the correct formation of the heads, following the same lines as laid down for the established trees, viz., that strong shoots should be left longer than weak ones. It will also be noticed that some trees form an upright growth, while others have a more spreading or drooping habit. The former should be cut back to a bud facing outward; the latter to a bud looking inward or upward. A little care in this direction generally proclaims the difference between a well-cared-for and a badly-managed tree. With pyramid trees or bushes on the Paradise stock very little pruning will be required. If summer thinning and pinching have been attended to, the leading shoots will require shortening according to the variety and the height it is ultimately intended that the tree should grow, and the side growths spurred back to about two buds. The same remarks apply to Pears and Plums in a general way. It will also be noticed that some varieties of Pears, such as Marie Louise and Jargonelle, produce fruit-buds on the points of the young shoots, so that provision must be made for retaining a portion of these.

Root-pruning.—It is seldom that young fruit trees come into bearing within a reasonable time unless they are lifted and replanted once or twice at intervals of two years or so, and the action of lifting and replanting constitutes what is generally termed root-pruning, for, as a matter of fact, little or no pruning, as the term is usually understood, takes place except the removal by a clean cut with the pruning-knife of a root that may have got damaged with the spade or fork, or, as occasionally happens, a strong root that has found its way vertically into an unsuitable subsoil. If it is thought that the soil is over-rich, a quantity of lime rubble should be added when replanting them.

Insect Pests.—Any time after the pruning has been done, and as soon as the weather is suitable, winter spraying should be carried out. The caustic soda wash is one of the most useful and effective for winter application against the numerous enemies of the fruit-grower; it also renders the bark of the trunk and branches clean and shiny and free from all lichen or mossy growth, and thus reduces the hiding-places of many orchard pests. The wash may be procured and mixed by the operator, or bought as a special preparation. It is best applied by means of a knapsack sprayer, unless in very large orchards, where special machines mounted on wheels are the most useful.

Thomas Wilson.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

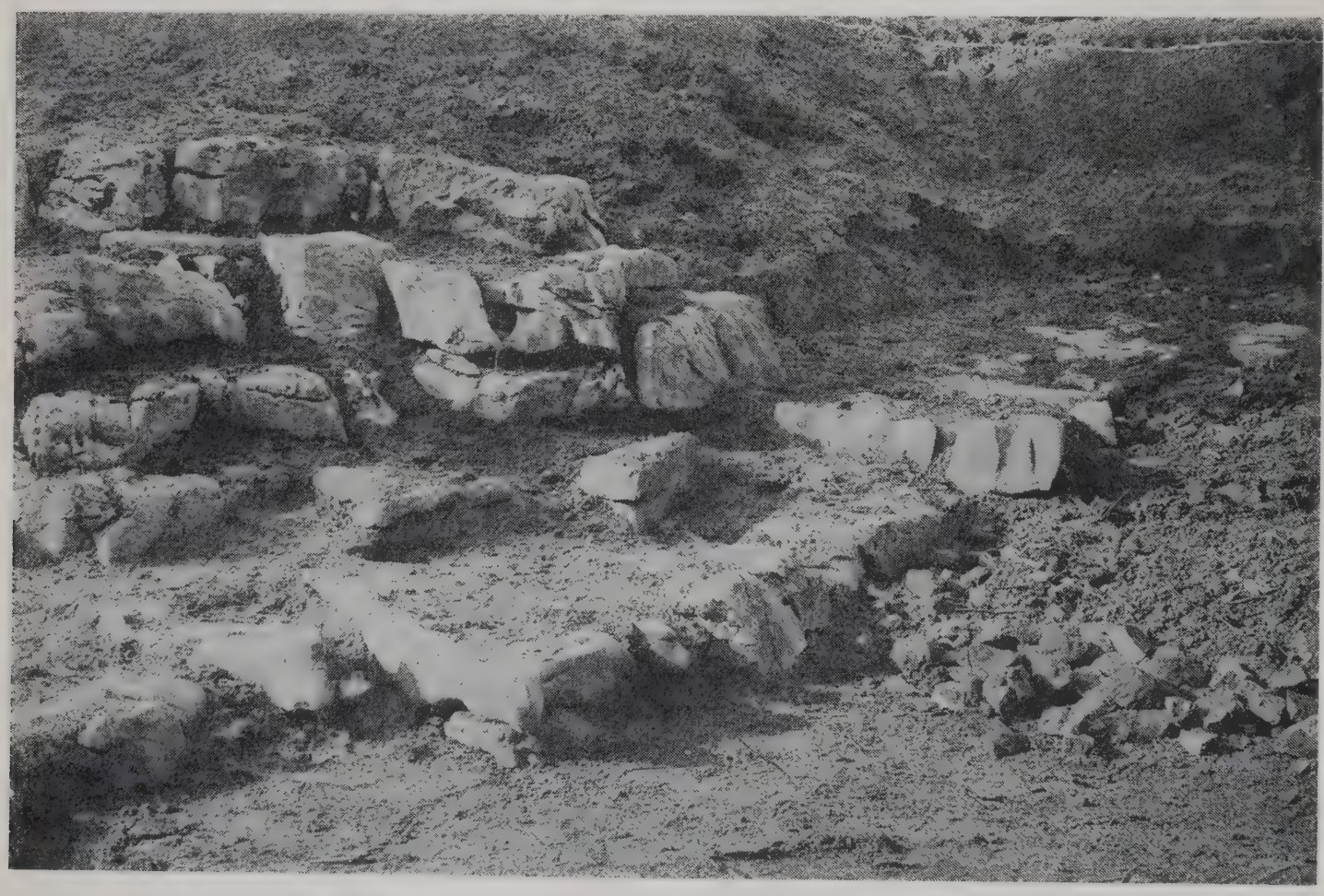
HOW TO MAKE A SMALL ROCK GARDEN.

A WELL-MADE rock garden is a most charming and interesting spot, for a great number of little plants can be grown in a comparatively small area. When building the rock garden, the artistic placing of the stones should not be the only, or indeed the chief, consideration, for it should be so built that it meets the requirements of as many genera and species of alpines as possible. To do this it is necessary to have some knowledge of the conditions under which the individual plants grow in Nature. Most alpines are found growing in mountainous regions, in fully-exposed situations. They are often seen proceeding out of a small fissure in a bare rock, and therefore the mistake is often made of thinking that they do not require much soil in which to grow; whereas it will be found on examination that the roots of a great many varieties extend a yard or more inwards, often penetrating rich stony soil beneath the rock, where they are kept cool and moist in summer and free from frost in winter.

Suitable Stones.—Generally, the nature of the stone used must depend on the kind found in the neighbourhood, as it will be so much cheaper and easier to procure. Where there is a choice of stones, limestone is one of the best kinds, as it is the most durable and is soon coated green by free-growing mosses. Sandstone is also excellent. Soft stones, which soon crumble away, should be avoided, and clinkers should never be used, nor is it advisable to use old roots of trees, for although they look pretty when covered with climbing plants, they soon decay, thus inducing fungoid growths, and they also form a harbour for insects.

Site.—The rock garden should be built in an open, sunny situation that is not in the proximity of tall trees, which, besides shading the plants, would rob the soil of its richness. However, a choice of site is not always possible, for sometimes the only available position is against the wall of a house or in a partially-shaded situation. In that case the cultivation of the choicest alpines should not be attempted, and only the hardiest subjects and shade-loving species should be grown. Sometimes the rock garden looks very pretty when formed at the edge of a lawn; but care must then be taken that the grass does not grow among the stones, giving it an untidy appearance. To prevent this, leave a margin of 2 inches or 3 inches between the grass and stones. The rock garden presents the most beautiful appearance if situated in an informal part of the flower garden, when behind the rockery is seen a mass of hardy perennials intermixed with low shrubs. Of course, these must not be near enough to overshadow the alpines.

Preparation of the Ground.—Except in gardens in which it is built against a wall or a sloping bank, the rock garden path will be below the level of the ordinary garden, which in its turn will be either level with or below the highest parts of the rock garden. The path round its base can either slope gradually, or a very pretty effect can be obtained by placing a few natural stones at the entrance to form steps. Before starting to build the rockery, the position of the path should be marked out. The best effects are obtained when it is slightly winding, so that the whole of the rockery is not seen at a glance. The height of the rockwork must then be determined. This will vary according to the size of the rock garden, 3 feet or 4 feet being a suitable height for a small garden. The path having been dug out, the soil for the rock garden should be dug at least 3 feet deep to ensure good drainage. At this depth rough stones, broken bricks, &c., may be placed as shown in the second illustration on page 593. Alpine plants need a good body of soil, the nature of which is of great importance when choice plants are to be grown. The most suitable soil is a good loam to which has been added plenty of sandstone or grit. Alpines will flourish in poor soil if plenty of well-decayed manure is added, but heavy soils should, if possible, be avoided. One part of the soil should consist of a mass of peat, as some of the alpines are peat-loving subjects; while in another part of the rockery chalk should be incorporated with the soil for the benefit of the alpines which flourish on chalky ground. Before placing the stones, the earth should be moulded into the desired form. It should be left very irregular in outline, being much higher in some places than in others. It is of great importance that the slope from base to apex should be gradual, or heavy rains will run off the rocks without watering the plants, which will consequently suffer from drought. The monotonous outline of the path will be relieved if some of the high ground is towards the front, forming a miniature cliff, and behind this a small bay can be made, which will afford shelter for shade-loving plants and provide others with the aspect which suits them best. If water can be associated, this will be an excellent site for a small pool.



A ROCK GARDEN IN THE MAKING. THE LOWER STRATA OF ROCKS ARE PLACED IN POSITION FIRST.

Placing the Stones.—These must be placed in position in such a manner that not only is a beautiful effect obtained, but the needs of the plants carefully provided for. Properly-placed stones will provide the plants with a suitable root-run and moisture, but the mistake must not be made of using too many. It is far better to use only a few and to leave large pockets of soil, into which the rain can penetrate and in which the plants will delight to grow. This is well exemplified in the illustration on this page. Begin by placing the lowest stones in position, ending with the highest. They must on no account be placed at all formally. Sometimes two or three stones should be placed together, forming rough ledges, while others may be placed singly and at different angles; but while guarding against formality, care should be taken that they do not look as if they had just been tipped out of a cart. They must be partly buried in the soil, and be so firm that one can walk from one to another without displacing a single stone. The stones should never overhang one another, and, where the general effect would not be marred, should incline inwards, the object being to retain as much rain as possible. When the rocks are in position, any gaps between them should be filled up with earth, for stones, while keeping the soil moist, quickly become dry when exposed to the air, and the plants, besides not having sufficient rooting medium, would quickly suffer from drought.

List of Suitable Plants for Rock Garden.—There is such a vast number of beautiful and interesting plants suitable for the rockery that only some of the best can be given here: Acæna microphylla, Acantholimon glumaceum (Prickly Thrift), Achillea moschata, Æthionema in variety (these require a sunny position in chalky soil), Alyssum saxatile, Androsace in variety (plant in driest part of rockery); Anemone alpina, A. apennina and A. valdensis are beautiful, requiring shade; A. vernalis needs peaty soil; Antennaria dioica,

Antirrhinum glutinosum (give sunny position), Aquilegias in variety, Arenaria balearica (requires peaty soil), Armeria cæspitosa, Asperula Athoa, Aster alpinus in variety (grow best in sun), Astragalus monspessulanus, Aubrietias in variety, Azalea alpina, Bulbocodium vernum, Caltha palustris (plant in lowest part of rock garden where plenty of moisture can be obtained), Campanulas in variety (these need a sunny exposure): C. barbata, C. carpatica and C. garganica are beautiful, as is C. muralis; Cardamine bulbifera (plant in shade), Cerastium alpinum, Cheiranthus in variety (sunny position), Colchicums and Croci in variety, Coronilla Emerus, Cypripediums in variety (require peat and moisture), Daphne alpina, Dianthus in variety (require sun), Dicentra thalictrifolia, Dryas octopetala, Edelweiss (give peaty soil), Erigeron salsuginosus, Erinus alpinus, Eryngium alpinum verum, Galanthus in variety, Gentiana in variety, Geranium in variety, Gypsophila alpina, Haberlea rhodopensis, Helianthemum in variety, Hutchinsia alpina, Iberis petræa (sunny position), Iris in variety, Kalmia alpina, Leucojum, Linaria alpina, Linum alpinum, Lithospermums in variety (require sunny position in peaty soil), Meconopsis cambrica, Menziesia empetriformis (give peaty soil), Mertensia ciliata, Michauxia Tchihatcheffii, Morisia hypogæa, Myosotis alpestris (requires moist position), Narcissus, Omphalodes verna (will grow on poor soil in the shade), Onosma tauricum, Oxalis floribunda, Papaver alpinum, Petrocallis pyrenaica (requires chalky soil), Phlox in variety, Potentillas in variety, Primulas in variety, Ramondia Nataliæ (plant on north side of a perpendicular rock in gritty peat), R. pyrenaica, Ranunculus alpestris (needs damp situation), Rhododendron Chamæcistus (give chalky soil), Saxifrages in variety, Scilla, Sedum in variety, Sempervivum in variety (require a dry, sunny situation), Senecio aurantiacus, Silene acaulis, Soldanella alpina (requires peaty soil in a partially-shaded situation and must be kept dry in winter), Thalictrum adiantifolium, Trillium grandiflorum (requires peaty soil and moist situation), Trollius europæus, Veronica in variety and Viola calcarata. D. B. A.



A ROCK GARDEN IN THE MAKING. THE DRAINAGE FOR THE CENTRAL MOUND IS WELL SHOWN.

THE FLOWER GARDEN.

DAFFODILS AND THE HEAT.

FROM communications received I find my notes on this subject, which appeared a few weeks ago, have created a good deal of interest both at home and in Holland. This is not very much to be wondered at, for the evil is more widespread than I imagined, and few are the growers or traders who have not had some experience of it in their stocks.

About the same time that my article appeared I submitted examples of the affected bulbs to the scientific committee of the Royal Horticultural Society, and in reply Mr. Chittenden informed me that they were attacked by a fungus called Fusarium bulbigenum. He wrote that until now he could find no record of its appearance in Britain since it was first described in *Grevillea* (a cryptogamic periodical) about twenty-three or twenty-four years ago. He suggested that they might have been left on the beds exposed to the sun and weather when they were lifted. The particular variety among my own stocks which suffered most may have been, but others were as well; and, furthermore, last year a certain lot of J. B. M. Camm, which were all the time of their being out of the ground left on the beds, gave far better results than others dried off, stored and replanted in the usual way. Hence I am pretty certain this leaving out was not the primary cause.

A letter from Mr. Jan de Graaff, who is a member of the famous wholesale firm of de Graaff Brothers of Leiden, and also a member of the Royal Horticultural Society's Narcissus committee, tells me that he, too, submitted samples to the Phytopathelogical Institute, Willie Commelin Scholten, Amsterdam, and that they reported it to be an attack of Fusarium bulbigenum, adding the pregnant and interesting fact that this fungus "only thrives when the temperature gets above a certain degree and also when there is a certain moisture." Mr. de Graaff remarks: "As regards the temperature, this was well above the degrees wanted for weeks, at least here in Holland. Moisture there always is when you put three or four bulbs together, especially in the early part of the season, when the bulbs still develop a certain moisture of their own. Bulbs kept spread out absolutely dry from the moment they were lifted did not suffer. Bulbs from the ground, moist, but kept in a cool cellar, also did not suffer." He then goes on to say, "There is also a great deal of difference at different places." I am sure of this, for I know one very small stock, where the costliness would certainly ensure the greatest care being taken and where there were not enough bulbs to make crowding possible, which was affected; while so many larger ones, where necessity compelled thick layers, have come off "scot free."

I suppose it is the difference in something which "no fellow can understand" that accounts for these vagaries. Still, I think we have got the cause, even if we do not understand all about it: Fusarium bulbigenum—heat—moisture, combined together and acting in concert. Given these, then subsidiary conditions, such as an unsuitable store place, a long journey in a close case and a too thick piling together, would naturally help its development. I sincerely hope we shall not have such a hot summer again for a long time, for Fusarium bulbigenum is a visitor we do not want to encourage.

Following up this train of thought, the behaviour of bulbs left in the ground will be anxiously and eagerly watched. I trust Mr. Herbert Chapman will be a true prophet. He anticipates "better flowers than usual from bulbs planted last year (*i.e.*, 1910) and left undisturbed," while another correspondent, Mr. John Pope, writes (and may his surmise be correct, too): "What do you think the tropical heat will do to the bulbs? I think it is likely to colour the blooms." Well, we must "wait and see." JOSEPH JACOB.

SWEET PEA NOTES.

NOTES ON VARIETIES.—A great man in the world of Sweet Peas is Mr. C. W. Breadmore, and to him growers owe more than a few of the finest varieties in cultivation. Consistently, season after season, he has sent out something of outstanding quality, and if they have not always done precisely as they should, one has not had serious cause for complaint, for the rogues have commonly been distinct and handsome. This season the one variety is Iris, and Mr. Breadmore feels constrained to call attention to the fact that he holds the entire stock of the real Simon Pure, not a single seed having left his establishment. I hope that a few thousands will leave it this winter, for Iris is one of the most exquisitely-refined Sweet Peas that it has fallen to my lot to see. Although it has been shown by Mr. Breadmore only, it has varied considerably in quality and slightly in colour, but the refinement has always been present. It is a pale salmon Spencer, and the price is high; but that matters little if it will help to win a fifty-guinea pot. Those who want it for this express purpose are warned to shade it judiciously, for unless I am much out

in my judgment, it will burn with a thoroughness that is worthy of a better cause. Others to come from Mr. Breadmore are King Alfred, large, rich orange pink; Jack Tar, dark blue; Dazzler, already well known as of fiery colour; Alpha, lilac; Annis Gibson, mauve purple; A. N. Dickson, violet and purple, immense size; Charlie Irving, deep orange salmon; Mollie Clegg, another monster, lavender mauve in colour; Mrs. Holroyd, glowing maroon; Coccinea Spencer; and Freda, white, which is claimed to be superior to Etta Dyke, a claim that some of us will not admit.

Mr. Robert Sydenham raises no new Sweet Peas, but if a man in the world has one that is good and "Uncle Robert" hears of it, he promptly sets out to purchase the stock, provided that there is nothing much short of a ton. An odd hundredweight or two of a novelty feeds the early birds, but the late ones have to accept more abundant fare. This year there will be a set of twelve either quite new or nearly so, and they are Barbara, the first-class certificate salmon orange self which Mr. Holmes showed so splendidly; Charles Foster, satiny pink and perfectly distinct—it is worthy of note that this variety is usually much better late in the season than it is early in the flowering period; Edith Taylor I do not know at all—it is described as a rosy cerise; Millie Maslin Spencer needs no colour words; Mrs. Eyre (probably Lady Evelyn Eyre is meant), pale pink; Mrs. Warren, blue veined, variable; Orion, reddish crimson; Red Chief, red maroon; Scarlet Emperor, the finest scarlet up to the present in the opinion of many sound judges; Scarlet Empress, a waved Queen Alexandra; Thomas Stevenson, the grand orange scarlet; and Iris, which is specially noted as Holmes's stock. These sound promising enough to satisfy the most fastidious, and no doubt they will be extensively grown and shown. Neither Messrs. Bide and Sons nor Hallams are offering any new varieties this season, but each hold excellent stocks of the finest standard sorts in cultivation, while the first-named have several that have been sent out and warmly welcomed in previous years. Messrs. Hallam have secured the services of Mr. Thomas Stevenson to write a brochure on Sweet Pea culture, and it is superfluous for me to say that the information is sound and reliable.

Messrs. Aldersey and Marsden Jones are young as a firm, but Mr. Aldersey has long been known as one of the supreme Sweet Pea enthusiasts. Their list is a model of brevity, since it contains only sixteen varieties in all. Among the pick are Amethyst, described as bishop's violet standard, peacock blue wings; Flamingo, vermilion; Helen Grosvenor, cerise and rose on buff; Moonstone, lavender grey; Mother o' Pearl, plumbago blue; Pearl, white; Romani Rauni, cream salmon; Royal Scarlet; Ruby; Scotch Pearl, lavender, flushed pink; Seashell, pale rose lilac; and the elusive Syeira Lee, gloriously beautiful, but unreliable.

A. B. ESSEX.



FLOWERING SHOOT OF THE RARE CÆSALPINIA PULCHERRIMA.

COLOURED PLATE.

PLATE 1440.

NEW HYBRIDS OF DIMORPHOTHECA AURANTIACA.

THOSE who are familiar with the beautiful orange-coloured flowers of Dimorphotheca aurantiaca, a half-hardy annual introduced to this country a few years ago by Messrs. Barr and Sons from South Africa, and which is known to many under the popular name of the Namaqualand Daisy, will welcome the new hybrids of which we give a coloured plate in this issue.

These hybrids have been put into commerce by Messrs. Haage and Schmidt of Erfurt, and seeds of the same are being distributed in this country by Messrs. Barr and Sons of Covent Garden and Taplow, to whom we are indebted for the painting from which our coloured plate is prepared. These hybrids are the result of a cross between Dimorphotheca aurantiaca and D. (Calendula) pluvialis, the old Cape Marigold. The first cross was made in 1909, and produced three hybrids, namely, a pure satiny white with yellow on reverse of petals, an ivory white, and a lemon-coloured variety.

Seeds saved since then have given the further beautiful range of colours as seen in the coloured plate. These Dimorphotheca hybrids must be classed as half-hardy annuals. The habit of growth, foliage and height of the plant (12 inches to 15 inches), also the size of the flowers (2½ inches to 2¾ inches across), resemble the parent D. aurantiaca. Seeds sown in spring produce plants which commence blooming in summer and go on flowering for a very long period. As pot plants these Dimorphothecas will be greatly appreciated in the cool greenhouse for their elegant growth and the great abundance of attractive flowers that they produce. Under glass the flowers develop to a larger size than in the open.

During the past summer, when most of the other annuals were scorched up, D. aurantiaca was giving us a rare display of its brilliant flowers, and if these new hybrids prove as useful as this parent, we predict a great future for them. Indeed, they promise fair to occupy the same position among annuals as the beautiful Gerbera hybrids do among herbaceous plants, with the additional merit that they are easy to cultivate successfully.

FRUIT GARDEN.

THE AMATEUR'S VINERY IN DECEMBER.

PRUNING EARLY VINES.—The cultivator of Grapes has a good opportunity in seasons like the present one to get the wood of the Vines well matured. Ripe wood and plump buds are two very important factors in the production of a full crop of Grapes on early-forced Vines. It is an accepted fact that maturity of bud and branch is, in nearly every case, essential to success, especially where some artificial forcing of the growth is carried out. Even before the Vine leaves commence to fade and fall off, the side branches may be partially cut back, thus letting in light and air to the basal leaves and buds.

The final pruning must be done directly all leaves part from the branches when the latter are shaken by the hand. Up to this stage, and until the house is actually closed for forcing, the ventilators must be left open, and on dull, cold days and nights the pipes must be warmed. Before Vines are started it will be necessary to thoroughly clean the interior of the structure. This is best done by washing the glass with clean water, and all woodwork with soft soap and water. All wires, hooks and pins should be painted with undiluted paraffin oil, so as to make sure of killing all injurious



Dimorphotheca aurantiaca hybrids.

Hudson & Kearns, Ltd., London.

insect pests lurking there. The work of cleansing must be commenced at the top of the house, the border being the last dealt with.

Pruning and Cleaning the Vines.—In all cases the amateur should retain at least two eyes or buds at the base of the side shoots that are to be cut back. If one bud does not contain an embryo bunch of Grapes, probably the other one will, and by early disbudding of the young shoots in spring the best one bearing the most compact bunch of Grapes may be retained. Cut off the branch about half an inch above the bud, not quite close to it, and use a very sharp knife so as not to run the risk of splitting the end of the branch. Remove only the loose bark from the rods; do not peel them, as such treatment is quite wrong, and only justifiable in cases where the rods are badly infested by mealy bug, a white, loathsome insect. Having finished pruning and cleaning the rods, very carefully clear off all rubbish and loose soil from the border and burn the refuse in a garden smother.

Watering and Top-dressing the Border.—Carefully fork up the surface portion of the border, but do not turn over the soil; simply loosen it. If quite turned over, probably many roots would be broken off as a result. Then give a thorough watering through a rosed watering-can, and the following day repeat the watering. Nothing but clear water must be given at this stage. The best way to top-dress the border is to first put on a coating of fresh lumpy turf, that in which the grass has just died. If it has been cut three months it will do. Now in starting the Vines the day temperature should not exceed 50° and the night 45° during the first few weeks. A syringing during the morning on fine days will assist the swelling of the buds, and when the young shoots are about an inch long all syringing of the Vines must cease; but the walls and border may be damped every day, and twice or thrice as the warmer weather comes. Old Vines do not require any depressing, but young ones are all the better for it, as, if tied straight up, the sap flows to the top of the rod and young shoots appear there, but the basal ones either remain dormant or the growth is weakly and backward. By arching or depressing the rods the flow of sap is arrested, and so the basal buds are strengthened and the new growth along the entire rod is more even. Cold draughts must be guarded against, and to this end, when ventilating the structure, try to admit air from the opposite side to that from which the wind blows. When the young shoots are 1 inch long, increase the artificial heat by 5° at night and 8° in the daytime. If any insect pests have been missed at the first cleaning of the Vines, watch for them and kill them as they crawl out in sunny weather.

B.

CÆSALPINIA PULCHERRIMA.

THIS beautiful Cæsalpinia, a native of the West Indies and other tropical countries, has been in cultivation for a great many years. It was introduced in the seventeenth century, and has long been cultivated as a warm greenhouse plant under the name of Poinciana pulcherrima; but it was not until November 21 of the present year that it received an award of merit from the Royal Horticultural Society. This year, like the hardy allied species C. Gilliesii, it has flowered remarkably well. It is a prickly shrub, with ornamental and Acacia-like foliage. The flowers are of a deep orange red colour, with long, protruding stamens. A mixture of loam and leaf-mould suits this plant quite well. All of the species are handsome in foliage, and their beauty is greatly enhanced when they can be induced to flower, as is the case this year.



THE DWARF COTTON LAVENDER IN THE ROCK GARDEN AT NYMANS, HANDCROSS, SUSSEX.

THE DWARF COTTON LAVENDER.

(SANTOLINA CHAMÆCYPARISSUS ALPINA.)

THIS dwarf, almost prostrate Cotton Lavender is one of the best of all plants for the rock wall. It differs from the ordinary S. Chamæcyparissus in habit and increased density of its foliage and the silvery tomentum with which it is covered. Planted in a well-drained, sunny fissure, with a moderate amount of sandy loam for it to root in, it grows slowly but surely, gaining character each season until, in about four years, it becomes a beautiful cloud-like mass similar to that shown in the illustration. It does not suddenly collapse and leave its label to do duty as a tombstone, but can be trusted to fill its station without encroaching unduly on its neighbours, and to present a bright and pleasing appearance at all seasons. Cuttings inserted in September in pots of sandy soil will, if removed to a greenhouse shelf in November, form roots during winter and commence to grow in early spring. Give water sparingly, as the cuttings, on account of their woolly nature, are liable to decay if the soil becomes at all sodden.

J. COMBER.

Nymans Gardens, Handcross.

ROSE GARDEN

SOME RAPID-GROWING WALL ROSES.

I AM often asked to recommend Roses that will cover a wall quickly and flower over as long a period as possible. Unfortunately, the two qualities do not often go together, but yet there are some that would meet the case. Of white or pale-coloured Roses we have Mme. Alfred Carrière, a variety that must be given time before a great display of bloom follows. In fact, this is the case with most climbers. We cannot command a free blooming all at once. When the wall is well covered with growth, we may expect abundant bloom, and it should first be our object to secure such growth. Mme. Alfred Carrière is suitable for a south or west wall. Climbing Kaiserin Augusta Victoria is a real beauty; its grand, showy blooms are produced in fine clusters, if anything of superior quality to the original dwarf form. A south wall would be best, but it will grow also on a west wall. The writer has it upon an east wall, exposed to the north, and it has withstood two winters quite unprotected. Climbing Niphetos is a fine snow white sort, but requires a very warm position; so also does Climbing Devoniensis, a really beautiful Rose, but rather shy in blooming, but if plenty of lateral wood is encouraged and not pruned, the plant will bloom freely. Lamarque is fine, but requires a warm position; best for the Southern Counties. In France it is one of the greatest favourites. It would do well under a glass coping. Alberic Barbier is very rampant, not very perpetual, but a fine sort to cover a wall with glossy foliage; so also would be François Guillot. Mr. Walsh's new Lady Blanche should also make a fine wall Rose. It is a large-flowered rambler and very sweet.

Among yellow and golden shades, Rêve d'Or stands out as one of the best, only here again time is needed and very sparse pruning; in fact, one might almost say no pruning at all. Duchesse d'Auerstædt and Climbing Perle des Jardins are good, the latter rather addicted to mildew. E. Veyrat Hermanos is a splendid Rose, but not very showy. It flowers best from the ends of its summer growths. When good it is equal to Comtesse de Nadaillac. Gloire de Dijon or W. A. Richardson cannot be omitted, but both need careful attention in the early stages so as to ensure a basal growth, as they soon become "leggy." Claire Jacquier, although flowering in June only, is a fine, vigorous grower, superior in growth to Alister Stella Gray, but not so good a Rose, as it is non-perpetual, whereas the latter is beautiful in September. The Yellow Banksian should be given a lofty south wall; then it will be a feature in a few years. The small spray growth must not be pruned away. Shower of Gold is very fine in growth, not very continuous in blooming, but a good colour when cut. A fine large-flowered pink Rose would be Climbing Caroline Testout, and its growth is so vigorous.

Among non-perpetual sorts I can recommend Tausendschön, Tea Rambler, René André, Leontine Gervais and Joseph Lamy. All of them possess beautiful foliage and clothe the walls very quickly. Dorothy Perkins is very fine if red spider can be kept off. This necessitates free watering and spraying. This good old sort will give bloom right up till Christmas. A good deep pink sort would be American Pillar, recommended as much for its foliage as for its lovely clusters of single blooms. A lovely salmon buff variety is Mme. Berard, a Rose that should be in every garden. Its shapely buds are very fine. Good red climbers are often asked for, and no one should miss planting François Crousse, Dr. Rouges, Reine Olga de Wurtemburg, Noella Nabonnand and Climbing Cramoisie Supérieure, and, of course, Grüss an Teplitz, but we can scarcely group it with rapid-growing wall Roses.

Then among non-perpetual sorts there are Excelsa, like a red Dorothy Perkins, and a real good thing; Hiawatha, Delight and Troubadour, this latter one of Mr. Walsh's novelties that is most promising. Its colour is bright red, shaded maroon. The flowers are produced in large clusters, each spray making a most perfect bouquet. P.

ROSE AMERICAN PILLAR GROWING OVER RUSTIC POLES.

WE have on many occasions referred to the beautiful effect that may be created by growing Rambler Roses over rustic poles. This mode of culture is so simple in design and so picturesque in effect that we wonder it is not more often adopted. The poles selected should be strong and firmly placed to give support, and so arranged that the wild and rugged beauty of the rustic-work when clothed gives to the mantle of flowering sprays their truest character. Rose American Pillar is particularly suited to this mode of culture, and a bold display is depicted in the accompanying illustration. There are numerous climbing Roses that might be allowed to ramble about unfettered over rustic-work of this description, such, for instance, as Lady Gay, Hiawatha, Dorothy Perkins, Aimée Vibert, Crimson Rambler, Bennett's Seedling, Longworth Rambler and Penzance Briars.



ROSE AMERICAN PILLAR GROWING OVER RUSTIC POLES.

THE TOWN GARDEN.

THE SHRUBBERY BORDER.—As often as not the shrubbery border of the town or suburban garden is a wearisome place, a spot savouring of neglect, of unkemptness, a covert or thicket of bad things run wild, a species of garden tangle, a problem impossible of solution, often enough, to its owner. In the circumstances one has in mind

THE INITIAL STEP will naturally be to get rid of the weeds, to clear out the soil-robbing thickets of Lilac, to make a bonfire of the unbeautiful, meaningless, often evil-smelling Privet, to stem the ever-rising tide of the ubiquitous Laurel, and, in fine, to resolve that the jungle shall give place to gardening within the limits of the garden proper. Reformation, indeed, must be the order of the day, and, having decided upon this course, the very desire to do better and make up for lost time will constitute a sort of halfway house to more complete success. The ground being cleared, there is no better way of ridding one's self of a nuisance such as this than by a fire on the spot.

THE FIRST ITEM ON THE NEW PROGRAMME will be the trenching of the soil. Naturally, too, after such a time its enriching will also require attention, and the twain are possible, as well as convenient and seasonable, at one and the same moment. Dig or trench the soil, then, as deeply as circumstances will permit, adding well-decayed stable manure liberally, and taking care that by incorporating it low down it does not interfere with the planting arrangements. In other words, the manure should be 1 foot or 15 inches below the surface, and if of a quite short nature, it is then easily kept under. During the digging of the ground the operator should keep a sharp look-out for such insidious weed pests as Bindweed or Coltsfoot, a pair not easily matched for tenacity of purpose or the trouble their eradication involves.

THE NEXT MOVE will be in the nature of a personal catechism, and it has now to be decided what shall be grown. In conjunction with this comes the size of the border, and in the average town or suburban garden it is not large. In such circumstances flowering shrubs or others whose leaf-beauty entitles them to be present may be introduced.

FOR MODERATELY HEAVY SOILS the selection should include Weigela or Diervilla, the Flowering Currants or Ribes, Deutzias and shrubby Spiræas, and Lilacs of a modern type, of which there are now, in both single and double varieties, many excellent sorts. In such a soil and in the more favoured localities Hydrangea Hortensia should find a place, the very handsome H. paniculata being more hardy, and therefore more generally useful. The Flowering Thorn and a bush of Magnolia where space permits would afford attraction of the right kind and provide not a little fragrance to boot.

FOR SOILS OF A LIGHT CHARACTER, or for those of a sandy, peaty nature, one cannot too strongly urge the merits of the Ghent Azaleas, so-called, Rhododendron sinensis and its near allies. Not only are the varieties of these singularly beautiful and varied in colour when in flower, but in autumn-time there is a leaf-beauty that is also of much value. Again, where these Rhododendrons thrive there is ever a good opening for not a few Lilies, and such as Henryii, tigrinum in variety, speciosum and candidum will not come into competition with the shrubs in their season of flowering. Berberis Darwinii is a plant ever to be borne in mind, so free-flowering and beautiful is it. And if in conjunction with such shrubbery planting as this Snowdrop and Squill, Grape Hyacinth and Chionodoxa be made to do duty as soil carpeters in spring, the gardener will have prepared a feast that will endure for many a day. S. N. N.

GARDENING FOR BEGINNERS.

THE PROPAGATION OF WILLOWS, ELDERS AND POPLARS BY CUTTINGS.

WILLOWS, Elders and Poplars may be propagated from cuttings during the winter months. Cuttings of Willows may be inserted at any time between October and March, and, unlike many other subjects, the shoots may be of any size and any age. They must be inserted in moist soil and be maintained in a moist condition, and there will be no difficulty whatever in raising a large number of young plants in a comparatively short time. These remarks apply to the ordinary kinds. The writer knows of numerous instances in which large stakes or poles of the Willows have been driven into soil that has always been cool and moist, and these same poles have subsequently developed roots and produced trees of great value and beauty in the course of a few years. It is one of the simplest subjects imaginable to root and control. The choice kinds are usually grafted on the Goat Willow (Salix caprea) in March, or else budded on the same stock in July. The bud is generally bandaged with damp moss. The Willow is a quick-growing, hardy, deciduous subject, and includes plants of a distinctly ornamental character, having yellow and red barked varieties that are especially beautiful in the winter when the leaves have fallen. The specific name of these ornamental kinds is S. vitellina. There are others, however. There are also the Osier Willows and those grown for timber, such as the Goat Willow already mentioned.

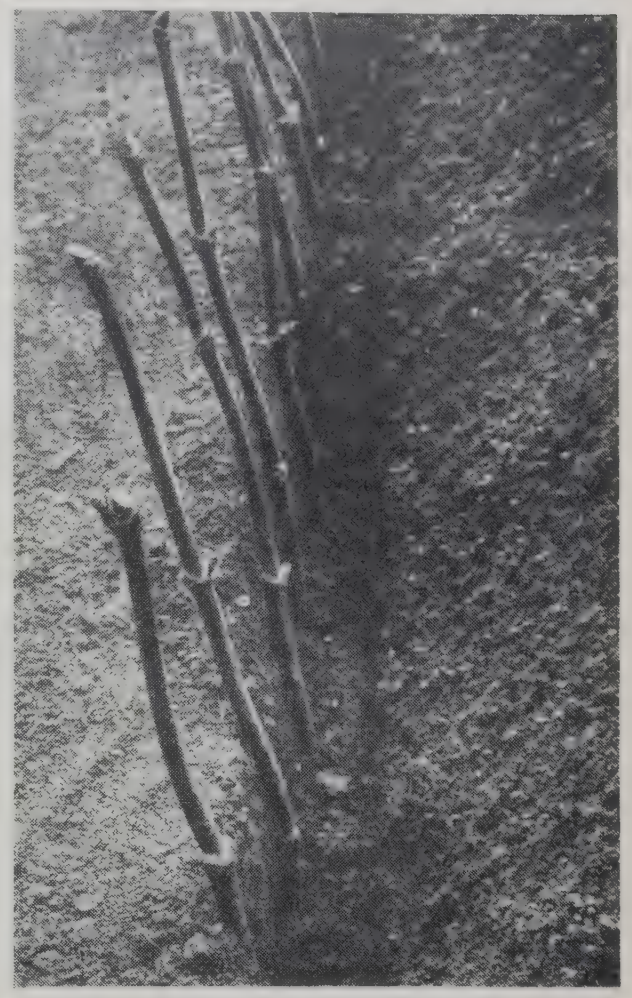
The Elders, known to botanists by the name of Sambucus, are represented by herbaceous and shrubby species. Plants of the herbaceous species are usually cut down in November. Of the shrubby kinds the common Elder (S. nigra) is probably the best known to most readers, and the beautiful Golden Elder (S. nigra foliis aureis) is much valued in the pleasure grounds, where its ample growth and foliage are a "thing of beauty" throughout the summer months. The shrubby Elders are increased by cuttings at any time from October to March, and cuttings are made of shoots or branches, which may be obtained in abundance from most specimens at this season. The cuttings should be about a foot in length, and after being prepared, by cutting through the stem of the shoot immediately below a joint and removing the point of the shoot just above an "eye," as shown in Fig. 1, they will be fit and ready to be placed in position in a small trench, wherein the greater part of each cutting should be embedded. The soil should be moist for this subject.

Poplars, like Willows, grow freely in low-lying marshy ground, and they also succeed very well in many other positions less moist. They form excellent screens for tender subjects, and rush up in a comparatively short time. The Poplar is a hardy, deciduous tree, and there are many species and varieties. Generally speaking, the Poplars need soil that is fairly moist; dry soils are not suitable. The period when propagation by cuttings may be done is somewhat restricted, October or November being the generally recognised period during which this work should be carried out. Any ordinary soil that has been properly dug and broken up answers very well. The length of the cuttings should be 8 inches to 1 foot, more or less, and they should be of the character depicted in Fig. 1, and be prepared as shown therein.

Fig. 1 serves to portray cuttings of the Willow, Elder and Poplar before and after preparation, and the beginner, to appreciate and understand the kind of shoots that are necessary and the method of preparation, would be well advised to carefully note the character of each shoot before and after the cutting is made. These cuttings are usually inserted outdoors in rather shallow trenches, such as that depicted in Fig. 2. If a large number of cuttings have to be inserted, it is a good plan to cut the trenches 1 foot apart, and then to adjust the prepared cuttings 1 foot or rather less asunder in the trenches. In the bottom of the shallow trenches it is a good plan to place a layer of light, gritty soil, and on this the bases of the cuttings should rest. After adjusting the cuttings in position, fill in with ordinary soil, and tread in or make quite firm the soil at the base of the cuttings. Unless this latter is done, satisfactory rooting will not take place. Let these simple rules of propagation be observed, and there should then be no reason why good results should not accrue. D. B. Crane.



1.—CUTTINGS UNPREPARED AND PREPARED OF WILLOW, ELDER AND POPLAR, READING FROM LEFT TO RIGHT.



2.—METHOD OF ADJUSTING CUTTINGS OF TREES IN TRENCHES OUTDOORS.

HINTS ABOUT FRAMES AND HOT-BEDS IN WINTER.

The cool frame alone is a most valuable asset in a garden, and where it can be placed on a hot-bed, thousands of young seedlings may be raised early in the new year, cuttings propagated and newly potted plants induced to make new roots early. The necessary work entailed in the management of a frame and its contents in winter-time is very interesting. It is really wonderful how quickly Tulips, Hyacinths, Jonquils and Narcissi may be hastened in their growth and flowering by simply plunging the pots to their rims in the ashes, Cocoa-nut fibre, or sand used as a surface covering to the bed. Owing to the gentle heat arising from the bed, only a light covering of straw, mats or other material will be required to exclude frost, even when the latter is rather severe.

Very wet, strawy litter heats quickly and violently, and then the bed as quickly becomes cool. Now, of course, this is not at all a desirable condition. A gentle, lasting heat is what we want, and such is obtained by using the strawy litter only slightly damped, and, in addition to it, if procurable, nearly the same quantity of freshly-fallen tree leaves. The whole of the material must be placed on a dry base and be vigorously shaken out as each forkful is placed in position. Avoid treading down the material; it will sink down sufficiently when the frame and soil or ashes and pots are put on. The settlement will be gradual and even, and the heat more lasting. Cocoa-nut fibre or ashes are best for plunging pots in, as any excessive moisture is absorbed, and so less risk is run of cuttings being lost through damp. On no account must the frame be quite closed at any time during the month following its being placed on the hot-bed, because some outlet must be provided for the steam arising from the bed. When it is necessary to ventilate more fully, the glass lights must be tilted on the side opposite to that from which the wind blows.

Excessive moisture is the great enemy of such plants as Pentstemons and Calceolarias, and so the cultivator must ventilate freely when the weather is favourable. Shamrock.

THE KITCHEN GARDEN.

EARLY PEAS.

LATE in the year and early in the new year the grower who likes early vegetables should make a start with the early dwarf Peas, and, thanks to recent introductions, there is no lack of suitable varieties. As regards culture, much depends upon the convenience to start the crop. I place much importance upon new seed; it has more vigour and gives a better return.

Varieties.—For frame work I advise the dwarf section not exceeding 2 feet to 3 feet, though I have grown much taller kinds, such as Early Giant, 3 feet to 4 feet; May Queen, 3 feet; Bountiful, 4 feet; Empress of India, 4 feet; Gradus, 3 feet; Early Morn, 3 feet, and others. These, when about two feet or even less, have been topped, and they then branched out and gave wonderful crops. But there is no lack of good dwarf kinds from 12 inches to 2½ feet, and these are excellent for frame culture or for borders, pots and boxes. Hundredfold, 2 feet; Pioneer, also 2 feet; Harbinger, a dwarfer variety, rarely exceeding 12 inches; Excelsior, 18 inches; the new Laxtonian, a wonderful cropper, 18 inches, a deep green pod, large and of excellent flavour; Little Marvel, very dwarf, under 2 feet, and a heavy cropper for its size; the older William Hurst, Exonian and Chelsea Gem are all good for first supplies, and these are not weak, thin growers, but, given good cultivation, pod freely and are very prolific. There are many others of recent introduction, but I have given the leading varieties suitable for the purpose. For years I grew Daisy, a dwarf, wrinkled Marrow, for earliest dishes, also Gradus. Both of these are difficult to beat as regards crop and quality, but those noted above are dwarfer and earlier for border work. I do not think they can be beaten for crop, and to this list such kinds as Early Giant, Snowdrop, Daffodil and Mayflower (a Pea after the William Hurst type, but a larger pod and quite dwarf) may be added. Laxtonian, a dwarf Pea of the Gladstone shape, is also good.

Sowing.—I prefer to sow late in December or early in January, and use 3-inch or 4½-inch pots. If for frames, 3-inch pots; for potting on, 4½-inch pots, and the same size for early borders, as the larger size pot gives a stronger plant. Use good soil. If at all heavy, add a portion of old spent Mushroom soil or wood-ashes. The latter is excellent, as it is open and checks mildew in damp weather. Do not crowd the seeds. Four to six in a 3-inch pot and six to nine in a 4½-inch pot are ample. Sow regularly, so that the seeds are an equal distance apart. Make the compost firm and, instead of the usual small drainage, place one large piece at the bottom and cover it with some sifted spent manure. This when planting out facilitates the work, also there is a compact ball of roots, strong and healthy, and the manure feeds at a time when the seedlings are gaining strength in the pots. I do not advise much heat; so much depends on when the produce is required. Just a little to exclude frost and start germination will suffice. At the same time, for border work I have found it best to raise in cold frames, keeping the frames close till the plants show above the soil, when ventilation must be afforded in fine weather. In severe weather frost should be excluded by using protective materials. Frames are best in which to raise the plants, as they can be ventilated easily, an important point, and the seedlings, being near the glass, are so much stronger. They plant out better and go away freely, being less affected by extremes of weather.

Planting.—The seeds may be sown in frames, but I do not advise it, as the plants transplanted into the frames, say, early in February, go away freely, and the frames up to that date are available for other things. Give a generous soil. If at all poor, use some decayed manure and some bone-meal for the surface soil. Plant firmly in rows, and in doing so open the lower part of the ball of roots carefully, so that they can expand or run freely. Do not attempt to force too much. Give the plants all the light and sun possible and close the frames early, well covering the glass at night to maintain an even temperature. A little weak liquid manure during growth will help. At the same time, do not overfeed till a good set is secured, when liberal quantities, also fertilisers, may be given to strong plants.

Pot Culture is simple. The seedlings, when large enough, are potted up into their fruiting pots. Those in a 3-inch pot may have an 8-inch or 9-inch, or seedlings in a 4½-inch pot two sizes larger. These plants I have grown well in fruit-houses on shelves or stages for a time, removing to cooler quarters, such as later fruit-houses, as the earlier ones get too warm. Avoid too high a temperature; this means a weak plant and a poor crop. The soil for the pots should not be too light; good loam with some bone-meal. Pot firmly and leave a good space at the surface for food and moisture. Good results may also be secured by growing in boxes if a light position can be afforded and ample ventilation from the time the plant begins to run. I prefer pots, as they are so readily removed; but, of course, if a house can be devoted to these plants, my remarks do not apply.

Early Borders.—This is probably the most popular mode of culture, as many can hasten an early crop who are unable to give glass culture as above. I have referred to sowing and the early work. For borders there is a great gain as regards time of gathering to those sown in the open. The old plan of sowing in November in the open does not find universal favour, as there are so many losses by pests and bad weather; whereas, if the weather is bad, the pot plants for planting out can be sheltered, and by giving weak manure growth is not retarded; hence my previous remarks. Do not sow too early. At the same time, with cold-frame culture, the dates or season given will give a strong plant. Some years ago, when we had intense frost in February and March, the ground was not in condition for sowing or planting till April was well advanced. I sowed over three thousand pots of Peas in March for succession to the first early in the open, which were not planted out till six weeks after the usual time, and they gave splendid results. Though a little dwarfer, they soon made up for delay in a generous root-run. The borders for first-early Peas should be prepared early in the winter and turned up rough, so that the weather can sweeten and pulverise the soil. Of course, a warm south border is essential. A heavy or wet soil should be made lighter, or be drained, and as growth must be rapid to be profitable, food of a quick-acting nature should be given. Plant early in March, or even earlier in a warm garden. Protect from cold winds by well moulding up—indeed, I prefer to plant in rather deep drills and mould up—then protect with Spruce or other branches. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Herbaceous plants for London garden (*A. C.*).—You omit, unfortunately, the size or extent of the garden, which is of importance, for a list of plants suited to a garden of the villa pattern may be quite unsuitable to one of larger size. However, assuming that you desire to garden with gay flowering subjects, you cannot do better than grow English, Spanish and Flag Irises, the two first-named being of a bulbous nature and requiring to be planted during the autumn months. These would flower in May and June, and at about the same period Trollius and single and double flowered Pyrethrums, which are most effective, would make a good show. Following these the Larkspurs would appear, and the Pæonies in conjunction with, or to be followed by, blue and white Lupines, Gaillardias, many species of Campanula, such Lilies as croceum, umbellatum, candidum, testaceum, tigrinum and colchicum, Alstrœmerias, Heleniums in variety, Galegas in mauve and white, Pentstemons, Columbines (singularly beautiful and pretty), Achilleas of sorts, Coreopsis, early-flowering Chrysanthemums and those of the perennial Marguerite set, Aster lævigatus, A. acris and A. Amellus in many forms, any of the Aster ericoides or A. cordifolius varieties, a selection of Phloxes, Border Carnations, Galtonia candicans and a large number of other things suitable for border decoration at the season indicated. All bulbous plants should be put out at once.

List of perennials and annuals (*A. M. W.*).—Of the former for providing a long season of flowering, we should recommend Arnebia echioides, Alstrœmeria aurea, Aquilegia cærulea hybrida in many shades of colour, such Flag Irises as pallida, p. dalmatica, Dr. Bernice, Chelles, aurea, Mme. Chereau, Queen of May, Mrs. Darwin, Princess of Wales and atropurpurea, Spanish Irises in variety, Gaillardias, Helenium pumilum, H. p. magnificum, H. autumnale, Helianthus Miss Mellish, single and double Pyrethrums, particularly such as Hamlet, James Kelway, Pericles, Ne Plus Ultra, Carl Voget, Captain Nares and J. N. Twerdy, Gypsophila paniculata, G. p. fl.-pl., Campanula Moerheimii, Helenium Riverton Gem, Chrysanthemum Leucanthemum Robinsonii, C. L. maximum, Aster amellus, A. acris, A. Novi-Belgi densus, A. lævigatus, A. ericoides Perfection, A. e. Desire, Achillea Ptarmica The Pearl, white Everlasting Pea, herbaceous Phloxes, garden Pinks and many besides. Both hybrid Pentstemons and Snapdragons should prove sufficiently hardy in your locality to be of much service for flowering. The free and continuous flowering of annuals is very much a question of cultivation, thin sowing, timely thinning, or early transplanting. Pentstemons and Antirrhinums are frequently treated as annuals, and sown in heat in January give good results the same year. Others suited to transplanting and requiring to be raised in a greenhouse or frame are Asters, Stocks, Godetias, Zinnias, Marguerite Carnations, Scabiosa, Gaillardia picta and Sweet Sultans. Those that are best if sown where they are to flower include Poppies in variety, Tom Thumb Nasturtiums, Mignonette, Candytuft, White Alyssum, Chrysanthemums (though these transplant readily), Eschscholtzias, Linum rubrum and Orange King Marigolds.

THE GREENHOUSE.

Standard Fuchsias and Heliotropes (*Hampton*).—Neither pruning nor repotting should be done now, though any unduly long, straggling shoots may be shortened at will. In early February you may prune back the shoots to within two or three joints of the junction from which they started this year, thinning out entirely any small, useless twigs or shoots. The Heliotropes should be given the warmer end of the house, and the pots or tubs raised a few inches above the floor-level. Very little water will suffice for these, and extreme degrees of temperature should be avoided. Prune these at much the same time as the Fuchsias, though less severely.

Bulbs (*A. W. J.*).—The three bulbous subjects named are, in all probability, now growing; hence they should be shaken clear of the ashes and taken into the greenhouse, giving them a good light position in that structure. Being in active growth, they need to be freely supplied with water.

Cactus (*A. B.*).—There has certainly been some cultural error in connection with the Cactus, and the appearance of the shoots suggests that it has been suffering from an excess of water, while possibly the reverse may have been the case. We can only suggest keeping it moderately dry during the winter, and with the return of spring it may recover from its indisposition. The name of the Fuchsia is Mrs. Marshall.

Freesias (*N. R. L.*).—As far as we can judge from your letter, the Freesias could not have been given more suitable treatment. Still, there must have been a cultural error somewhere. You do not say at what time you potted them last year, and the only suggestion we can make is whether they were kept out of the ground too long at first, so that they were partially exhausted when potted. If so, this would account for their dividing up into numerous small bulbs, and, of course, the entire energy of the bulbs would be devoted to the development of flower-spikes.

Belladonna Lily (*A. K.*).—No; the bulb must not be dried off. In the case of established examples, new leaf-growth appears soon after the flowering ceases when the plant is grown under glass, and when severe frosts have departed when the plant is grown in the open ground. For fuller particulars of culture see THE GARDEN for October 7. Judging from your letter, we imagine the bulb to be a freshly-potted one; if so, we advise that it be pot-grown until spring, and then planted at the base of the greenhouse wall in the sunniest position you can command. Water freely so long as good growth remains, and give the bulbs a good rest by withholding all moisture for a time.

Rose Marechal Niel in greenhouse (*F. E.*).—The sample of soil sent is not at all suitable for Roses. We should advise you to procure some turfy loam from another part. Frequently this may be secured from fields where building operations are going on; if so, try to procure the top spit of virgin soil. If you open out a border about three feet long and the same in width and depth, this should suffice for your plant. Add some basic slag to the lower soil and quarter-inch bones to the upper. You are well advised to plant a half-standard of this Rose, but do not try to get one in a pot. In the first place, we think you would find a difficulty in doing this, and we do not think you would obtain so good a tree as one growing in the ground. You must select a nice young Briar stock, one that will bend a little. It is a pity you cannot make the border inside. These outside borders are seldom satisfactory for Maréchal Niel.

Carnation rust (*T. S.*).—When one bears in mind the light, well-aired structures, fitted with all the latest appliances, in which Carnations are grown in the large trade establishments, it is easy to understand how handicapped you are in having only a small lean-to house to devote to their culture. Even in the case of houses built especially for Carnation-growing, this disease often gives considerable trouble, and so we are not at all surprised that you experience some difficulty therewith. Different remedies have been suggested, but when the disease once makes its appearance, none of them seems effectual in thoroughly eradicating it. Sulphide of potassium dissolved at the rate of 1oz. to three gallons of water and sprayed over the plants has been often referred to as a successful application. If syringed on to white paint, this quickly discolours it. Veltha Emulsion is also recommended by some of the principal growers as a remedy against rust. The variety Mrs. Burnett has been notoriously liable to attack by this disease, so much so that some growers have given up its cultivation owing to this failing.

FRUIT GARDEN.

Vine Madresfield Court (*T. T.*).—When you have carefully removed some of the loose surface soil without disturbing the roots, put on bone-meal at the rate of 6oz. per square yard and kainit at the rate of 2oz. to the square yard. Then add the new loam, which should be fibrous and laid on to a depth of about three inches. Finally, put on a surface mulch of fresh horse-manure 2 inches deep. After clearing off the loose soil, and before adding the bone-meal and kainit, give the border a thorough soaking with clear tepid water. For an early crop you must start the Vine gently very early in February.

Layering Loganberry canes (*L. T. S.*).—The sooner these are layered the better. The way to proceed is to dig a narrow strip of soil at a distance from the base of the canes convenient for the points of those to be layered in the soil, say, at 5 inches apart. If the soil is of a heavy nature, mix with it when digging a liberal quantity of road scrapings and fine soil. Draw the branches you wish to layer to this strip of soil, cut away from each branch the weak extreme point to the extent, say, of 12 inches; then, 15 inches below the top of the shoots which have been slightly shortened, cut a shallow notch with a sharp knife on the under side of the branch. This will induce the shoots to emit roots sooner. Take care not to cut into the branch too deeply, or it will break. Scoop out some soil with a trowel 3 inches deep and insert the part of the shoot which is notched in the soil, pressing it down firmly, at the same time securing it to the ground by pressing a wire or wooden peg over the branch. This finished, cover over with the 3 inches of soil scooped out, and tread firmly. The point of the shoot which is left out of the ground must be staked to bring it into an upright position, taking care not to break it in the attempt. The layered branches will require no further attention than to see that the ground is kept free from weeds and that the canes are occasionally watered in dry weather.

Injury to Cherry tree (*W. S.*).—The Cherry was attacked in the early part of the season by aphis For this attack spraying either with quassia and soft soap or with nicotine wash should be done as soon as the insects appear, that is, about the time the buds burst in spring. Later (and at present) they have been attacked badly by red spider. This attack has no doubt been encouraged by the hot, dry weather. It rarely occurs in ordinary seasons if the house is properly damped down. Spraying with potassium sulphide (1oz. to three gallons), repeated after a week, is useful, but thorough spraying with water will generally be efficient. As the trees are under glass, they may be fumigated with Abol or XL All twice at intervals of three days.

MISCELLANEOUS.

Various queries (*Pongo*). — 1. The Sycamores could be planted at any time before March. The Hops may be planted now or in March or April. 2. Take the thermometer in the hand and at arm's length swing it sharply from the shoulder level, horizontally held to the upright position of the leg. This usually readjusts the position of the mercury in the tube, although it may be necessary to repeat it once or twice before complete readjustment is secured. 3. The Galtonia may be placed in a cold frame. The Passiflora and Agapanthus should be placed in the greenhouse where a temperature of at least 45° or 50° is maintained. Cover each seed-pot with a sheet of glass after the soil has been watered.

Various questions (*Felicier Browne*).—For training to a trellis in order to form a hedge or screen, the wichuraiana hybrids form a very desirable class, and, apart from any other consideration, their foliage is so handsome. Planted 6 feet apart and secured to the trellis till the allotted space is covered, the following are, in addition to those named by you, all good: Alberic Barbier, Auguste Barbier, Edmond Proust, Excelsa, Gardenia, Hiawatha, Jersey Beauty, Le Perle, Leontine Gervais, Joseph Lamy, Lady Godiva, René Andre and Schneeball. (2) You may certainly cut any dead wood away as soon as it makes its appearance, as it detracts greatly from the beauty of the plant. (3) Iris reticulata and small Daffodils may be planted in the beds without injuring the Roses. (4) Bulbous Irises, Tulips, Gladioli, and Anemones of the tuberous-rooted section should be lifted when the foliage has completely died down. (5) For the sheltering tree or shrub, Cupressus macrocarpa may suit your purpose, as you say it is doing well with you. Cupressus lawsoniana and Thuja gigantea are two other conifers suitable for the same purpose. They are all amenable to pruning. Though of slower growth than the above-named, the Holly forms a good hedge or shelter plant. (6) As the wash that you were recommended to use was to be applied when the trees were dormant, we should advise you, if used now, to employ it only at half the strength recommended for dormant trees.

Peat-moss litter (*H. E.*).—Because of its sponge-like, absorbing nature and its capabilities for retaining the ammonia-charged urine of the stables, it is not advisable to use the above manure in a fresh condition, or in near proximity to the roots of crops at any time. It takes a much longer time to decay than strawy manure, and for this reason should be stacked for some months before being used. By adding a little lime and a third part of garden soil to any given quantity of the manure, turning the whole a few times during a period of six months, it would be the more early available for the flower garden. For kitchen garden and farm crops, ordinary stacking and turning would suffice. The fact that farmers continue to fetch this class of manure does not prove much. All intelligent farmers know which they would have for preference, and obligation knows no choice.

Window-box gardening (*F. P. G.*).—If by "permanent evergreens" you mean plants of a shrubby nature, we fear the conditions would be opposed to permanent success, and that an annual overhauling of the subjects, with renewal of the soil, would be more or less essential. There are so many useful flowering plants suitable for the purpose that we should prefer to employ shrubby plants only for the winter months, *i.e.*, shrubs in conjunction with dwarf Tulips and Daffodils, the latter springing from carpets of greenery afforded by Saxifrages and the like. Mossy Saxifrages, Alyssum, Campanula muralis and setecea Phloxes would all be pleasing for fringing the margins of the boxes, and Pinks would give a later display. Of shrubs we might name Skimmias, berried Aucubas, gold and silver Euonymus, with Retinospora squarrosa, R. pisifera aurea and others.

How to make skeleton leaves (*A. F. J.*).—The Journal of the Pharmaceutical Society gives the following directions for skeletonising leaves: "Immerse the leaves for two minutes in boiling water; then transfer them to a strong solution of potassium permanganate, and generally heat on a water bath. In an hour or two the cellular tissues may readily be removed with a brush. The skeletons thus obtained are then bleached in a solution of chlorinated lime or sulphuric acid. Another method is to immerse the leaves in a one in eight solution of nitric acid until, on brushing with an old tooth brush or shaving brush, the cellular tissue rapidly separates and leaves the skeleton. When the soft tissue has thus been removed, wash thoroughly, first in a very little diluted ammonia, then in plain water. Finally, bleach by immersion in a solution of hydrogen peroxide freely exposed to the sunlight. This is done in a wide-mouthed bottle. The time required to soften the cellulose depends on the texture of the tissues."

Woodlice (*A. C.*).—We are surprised that you have not been more successful in getting rid of the woodlice, for with a fair amount of perseverance we have never known such treatment as yours to fail. A good deal may be done with boiling water judiciously applied, and vast numbers can be trapped. One of the most successful of all traps is to take some Potatoes, cut them in halves, hollow out each portion, and place them concave side downwards on the stage. The small pieces of Potatoes may be mixed with a little dry hay or moss and placed loosely in small pots and laid on their sides in the most likely spots for the woodlice. It is, of course, absolutely essential that these are gone over every morning and the woodlice dropped into boiling water. Of the different proprietary articles that we have tried, we have found the most effectual to be Beetlecute, which can be obtained from any horticultural sundriesman.

Names of fruit.—*F. H. O. Pease.*—1, Lord Derby; 2, not recognised.——*E. Ballard.*—1, Roundway Magnum Bonum, attacked by bitter-pit; 2, Golden Noble; 3, London Pippin; 4, Ashmead's Kernel.——*F. Hicks.*—1, Fearn's Pippin; 2, King of the Pippins; 3, Blenheim Orange.

Names of plants.—*L. G. Read.*—Vallota purpurea.——*H. Jones.*—Begonia semperflorens and Epidendrum ciliatum.——*J. M.*—Alhagi maurorum, Camel Thorn or Persian Manna Plant.——*T. L.*—1, Pyrus pinnatifida; 2, Sequoia gigantea; 3, Abies nobilis; 4, A. grandis; 5, Pteris serrulata; 6, too scrappy to identify; 7, Aspidium angulare.——*Reader.*—1, Kleinia repens; 2, K. articulata; 3, Mesembryanthemum candens; 4, Crassula conjuncta; 5, Mammillaria stellata; 6, Sempervivum Haworthii; 7, Aloe serra.——*A. G.*—1, Maxillaria picta; 2, Begonia semperflorens var.; 3, Crassula coccinea.

THE EDITOR'S TABLE.

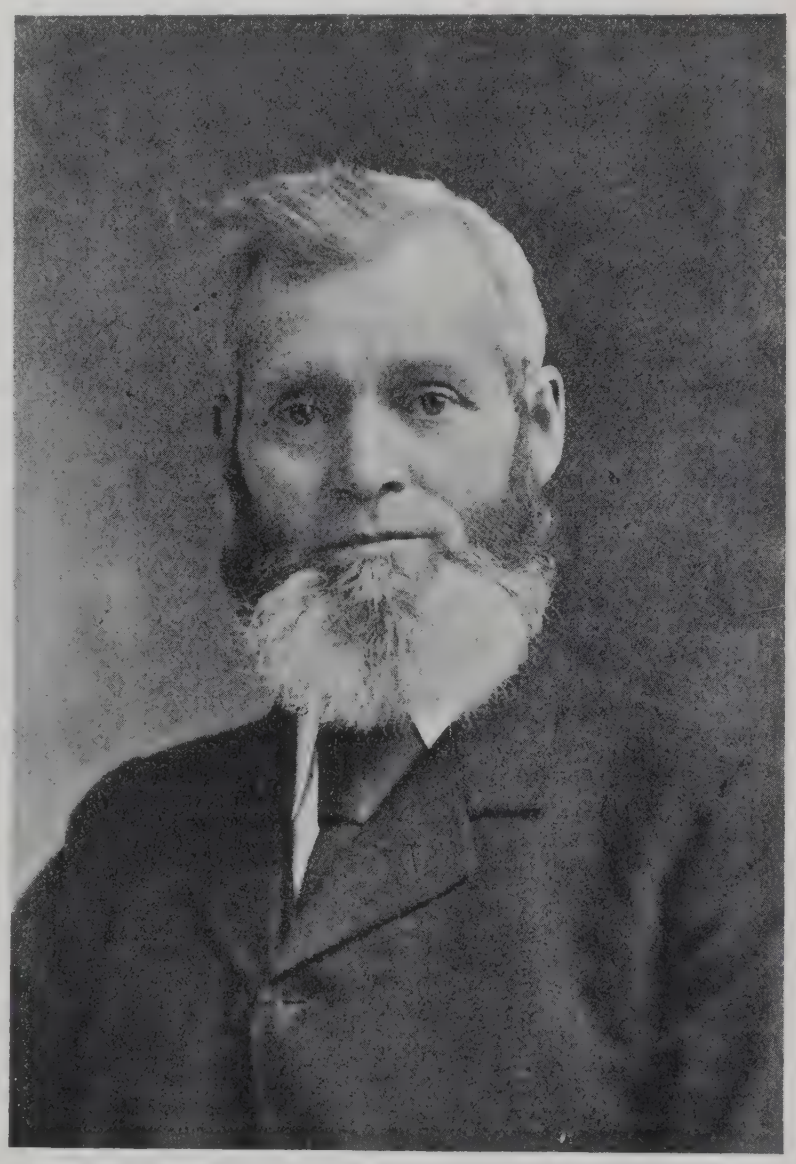
PRIMULAS IN DECEMBER.

From Dr. MacWatt, a well-known Primula enthusiast of Morelands, Duns, Scotland, we have received a number of interesting varieties and species gathered from the open. The Blue Primroses and Polyanthuses were fresh-looking and of remarkably good colour. The collection included Primula capitata, P. Poissonii, P. denticulata and the rare and little-known P. Listeri.

OBITUARY.

JAMES DOUGLAS, V.M.H.

TO many readers, news of the all too sudden death of this very eminent florist and gardener will come as a great surprise and with profound sadness. For very many years as a grower of Auriculas and summer Carnations Mr. Douglas stood unrivalled, and his little nursery at Great Bookham, Surrey, was to numerous florists a sort of Mecca, to which many found their way both to admire the beautiful flowers presented and to gather knowledge and wisdom as to their culture from the lips of the veteran grower. How often have we seen at the meetings of the Royal Horticultural Society exhibits of James Douglas' specialities, and specially so of Auriculas, such as none other has ever displayed. Our departed friend was one of a fast-dwindling band of eminent florists, of whom before his death had passed away Ben Simonite, Samuel Barlow, R. Bently, Charles Turner, E. S. Dodwell, Peter Barr, W. Bragg, R. Dean and many others, leaving yet in his distant home at Kirkby Lonsdale that eminent member of the order, the Rev. F. D. Horner. There seem to be but few left now who worship at the old florists' shrine. In their day they rendered great service to floriculture, and none perhaps more so than James Douglas. Living for the past few years at Leatherhead, on higher ground than is Edenside, Bookham, he had enjoyed fairly good health, although not at any time a robust man. In addition to cultivating so well Carnations and Auriculas, Mr. Douglas took an active interest, during latter years, in all pertaining to horticulture. He was for some years a member of the Council of the Royal Horticultural Society, and up to the time of his death was a member of the floral and scientific committees of that body. He was also on the committees of the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund. When the Victoria Medal of Honour in Horticulture was founded by the Royal Horticultural Society in 1897, Mr. Douglas was one of those honoured by the receipt of that medal. A quiet man, of a lovable disposition and keenly interested in flowers, his death leaves a hiatus that will be difficult to fill. From time to time he contributed articles to these pages, and so recently as April 15 we published an article by him on the Auricula such as few men of to-day could write. The end came all too suddenly on Sunday, the 26th ult., and his burial took place in the churchyard close by his residence on Wednesday afternoon, the 29th ult. No doubt largely due to the shortness of time which had been allowed to elapse between death and burial, the sad event or its final result had become known to very few. As though to do honour to one whose life had been so peaceful, and during it had done so much to beautify the earth with flowers, the weather was of the finest, the sun being bright and beautiful, and as the body was lowered into the grave the sun set in the West in great splendour. Besides the widow, son and daughters, there were present Mr. and Mrs. Young of Witley Court, Worcester; Mr. and Miss Bennett-Poë, Mr. W. Bain, Mr. A. Dean, Mr. G. J. Ingram and members of the Edenside staff.



THE LATE JAMES DOUGLAS, V.M.H.

SOCIETIES.

DUNDEE CHRYSANTHEMUM SHOW.

THE annual Chrysanthemum show of this society was held on November 24 and 25, and was an excellent one in point of quality, although the number of entries was small compared to what would be expected in a centre of horticultural work like Dundee. The fact that the Dunfermline show, which offers very liberal prizes through its support by the Carnegie Dunfermline Trust, was held on the same days made it a powerful rival in attracting exhibitors. At the same time, the quality of the Dundee exhibits was of a very high order, and in the 245 entries there was hardly a poor exhibit. The leading competition in the class for cut blooms was that for the City of Dundee Corporation Cup, with a sum of money added, the class being for twelve vases of Japanese in twelve varieties. The winner was Mr. James Rae, gardener to the Earl of Northesk, Ethie Castle, Arbroath, who had grand blooms. Among his best flowers were Mrs. A. T. Miller, Master David, F. S. Vallis and Hon. Mrs. Lopes. The second place was taken by Mr. A. Duncan, gardener to Mrs. Grimond, Carbet Castle, Broughty Ferry, with a nice lot of good flowers. Mr. J. E. Davis, gardener to Colonel Richardson, Ballathie, Stanley, Perthshire, was third. In the class for eight vases of Japanese in eight varieties, Mr. A. Duncan took the first place with good blooms. Sprays, bouquets and other specimens of florists' work were very fine and tastefully executed, the principal winners being Mr. James Bethel, The Grange, Monifieth, and Mr. James Beats, Binrock, Dundee. The pot plants were well shown, and vegetables were of high quality. Amateurs also gave a good contribution to the show, Mr. James Denholm taking the leading honours in their classes.

DUNFERMLINE CHRYSANTHEMUM SHOW.

THIS show was held in St. Margaret's Hall, Dunfermline, on November 24 and 25, and proved a very successful one. The liberal support given to this and other shows in Dunfermline by the Carnegie Dunfermline Trust enables better prizes to be offered than is possible at most Scottish provincial shows, and, in consequence, some of the leading exhibitors in the kingdom entered and sent good Chrysanthemums and other produce of the garden. The show was thus an excellent one, and the Chrysanthemum blooms were of superb quality. The leading prize—that for the challenge cup in the open section for cut blooms—was well won by Mr. G. Stewart, gardener to Sir James Sivewright, Tulliallan Castle, Perthshire, with very fine blooms, equal, some considered, to those shown in the leading classes at Edinburgh, the eight vases in eight varieties being of marked quality. Mr. John Waldie, gardener to W. H. Dobie, Esq., Dollarbeg, Clackmannanshire, was second; and Mr. H. M'Rae, gardener to J. A. Avon Clyde, Esq., M.P., Brooklyns, Fossoway, third. In the classes for pot plants the leading prize-taker was Mr. J. Reid, Tranzylaw. The other sections of the show were well contested, and much good produce was shown. Amateurs also exhibited very well, and their classes were of high quality, as a rule. The cup in the class for flowers confined to amateurs was won by Mr. T. Morrison, Grieve Street, Dunfermline, while Mr. J. Wilson, Albany Street, sent the best plant in the amateurs' section.

HAWICK CHRYSANTHEMUM SOCIETY.

THE annual show of this society was held in the Exchange Hall, Hawick, on November 24. The show was the best the society has yet held in point of quality of Chrysanthemums, while that of vegetables was exceptionally fine. The entries were numerous, there being about six hundred in all, and the show was a highly creditable one to the horticulturists of the Border. In the open class for cut blooms, four vases of three blooms in each vase, the exhibits were of a very high class, and the first prize was awarded to Mr. R. Honeyman, gardener to W. Ramsay, Esq., of Bowland, Stow, the winner of the Scottish Challenge Cup at the Edinburgh Show, for vases of grand flowers. The second prize was awarded to Mr. J. Cochrane, gardener to A. D. F. Gordon, Esq., Langlee House, Galashiels. For two vases Mr. Honeyman was again first, the second prize falling to Mr. A. Williams, gardener to Lord Stratheden and Campbell, Hartrigge House, Jedburgh. Mr. F. M. Urquhart, gardener to H. Mungall, Esq., Gattonside, Melrose, was the winner for six blooms of Japanese, Mr. A. Williams coming in second. In the special open section Mr. Honeyman was again to the front, securing the first prize for six vases of Japanese in six varieties, three blooms of each. Mr. W. J. Rutherford was second. The dinner-table decorations were good, Mrs. W. Oliver taking the first prize with a neat effect. In the pot-plant classes the competition was good, and the chief prize-winners were Mr. F. M. Urquhart, Mr. G. Hogg, Mr. A. Williams and Mr. A. Leithhead. Fruit was a generally good class, the principal winners being Mr. Urquhart, Mr. A. Elder and Mr. G. Hogg. The vegetable classes were exceptionally fine, and the leading prizes were awarded to Mr. J. Spalding, Mr. J. Glendinning, Mr. J. Fleming, Mr. R. Andison, Mr. F. Urquhart, Mr. A. Bruce and a lady, Mrs. Oliver. Amateurs showed well.

READING GARDENERS' ASSOCIATION.

THE excellent attendance which has characterised the meetings during the present session was fully maintained at the gathering of Monday of last week, at the Abbey Hall, kindly lent by Messrs. Sutton and Sons. Mr F. B. Parfitt presided over a large assembly. The president, in opening the meeting, congratulated the members generally, and those in particular who contributed in any way, on the successful carrying out of the recent exhibition in the Corn Exchange. The hon. secretary then submitted the balance-sheet relating to the recent show, which conveyed to the meeting the gratifying information that a net profit of £16 9s. 6d. had been realised, which sum would be equally divided between the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund. The speaker for the evening was Mr. F. G. Drew, Instructor in Horticulture at University College, Reading, his subject being "The Education and Training of a Gardener." In the able hands of Mr. Drew such a subject was bound to be highly interesting. The lecturer advocated aiming at high ideals. Though from the fact that the gardener's work lay on the earth, he would not advise them to soar and live as it were in the clouds, but to recognise that intelligence, thoroughness, skill and knowledge of technical details, combined with tact, adaptability and a due recognition of proportion, were qualities which should be carefully cultivated. Mr. Drew pointed out that the younger men, particularly in remote districts, often suffered from want of direction in their studies, and that, too, at a critical period in their career. He urged head-gardeners to afford every assistance to their juniors in pursuit of knowledge. The lecturer stated he held particularly optimistic views with regard to the future of the profession, and felt sure that with the advantages offered by University College and similar institutions in other large centres the studious gardener might look forward with certainty to a "good time coming." At the conclusion of the address Mr. Drew was loudly applauded, and at the close of the meeting received a hearty vote of thanks. There was an excellent discussion.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE BEST TREES FOR WIND SCREENS.

THE usefulness of trees which endure violent winds without serious injury cannot be overestimated, for without their aid it would be impossible, in some parts of the country, to rear more delicate kinds to anything like maturity. This is very noticeable in South-West Lancashire, where the coastline is made up of a series of sand dunes of varying heights, interspersed with considerable areas of level sand which open on to low-lying agricultural land. The region is thus fully exposed to the prevailing westerly winds, and for several miles inland it is almost impossible to find a really good Oak unless it is growing within a shelter belt. Hedgerow trees are generally stunted and one-sided, the head inclining towards the east. But where a good wide Pine belt exists round a garden or estate, perfect trees may be found. The same thing occurs in parts of Norfolk and other places on the East Coast, while a similar state of affairs may be noted in various other parts of the country, both near the coast and inland.

Several cone-bearing trees are valuable for providing shelter, while they have the faculty of being able to establish themselves in pure sand within a few yards of high-water mark on the coast. A good object-lesson in the formation of shelter is to be found on the Holkham estate of the Earl of Leicester, where for many years past experiments have been conducted in the reclamation of sand dunes. Here three of the principal trees used are Austrian Pine, Corsican Pine and Scots Pine. The first of the three is the best shelter tree, for its dense habit, free branch system and copious leafage make it practically windproof. In exposed positions on the Sandringham estate the same thing applies, for wherever Austrian Pine occurs on the outskirts of a wood, it is seen as a dense bush from the ground-line to the summit. Scots Pine is also a good wind-break, but less so than the former, and both this and the Corsican Pine thrive better behind the Austrian. They, however, are the best timber trees.

The secret of success with these trees in exposed situations is to plant them when very small. Those 6 inches to 9 inches high are likely to prove much more satisfactory than older ones 2 feet high. In some cases people have even gone to the trouble of establishing little trees in turves to put out. Once they become established, however, they keep going, and often reproduce their kind by natural regeneration.

Another Pine which stands well in the vicinity of the sea is the Japanese Pinus Thunbergii. It is used extensively in Japan for shelter and for the reclamation of sand dunes, and use has been made of it for shelter in Ireland. For the milder parts of the country, Pinus insignis and Cupressus macrocarpa are excellent subjects, for they stand wind well and are not readily injured by salt spray. These two are less useful than those mentioned previously for inland planting, as they are less hardy. Another conifer which has obtained a reputation as a shelter tree is Cupressus lawsoniana, while Thuya plicata is also sometimes used.

The width of the belt in which the trees are planted will depend a great deal on the position and the use for which they are wanted. As a rule, from three to nine rows of trees will provide shelter for any ordinary purpose, and with the wider belt the inner rows may be encouraged to make clean timber, lower branches being allowed to develop on the outer trees only. When planting on the seashore, clumps of Marram Grass are usually established first, and these are followed by Goat Willow and Birch, among which the young Pines obtain a little shelter while roots are being formed.

Among broad-leaved trees the Poplars are frequently planted as shelter trees, while Birch, Thorn, White Beam, Mountain Ash and Holly all stand wind well. The common Ash also stands a lot of wind, and a healthy plantation was noted on a hillside fully exposed to Swansea Bay a few years ago. At high tide the trees were washed with spray. Beech is sometimes spoken of as a shelter tree, and where large, mature trees exist they naturally break the wind well. But it is almost a hopeless task to try to establish Beech unprotected in a very exposed situation. It is really a tree which requires a lot of protection itself during its early years, for it is very susceptible to injury from late spring frosts.

In many parts of the country the Sycamore can be used with success, especially where the ground is not of the best, for it reproduces itself freely from seeds, and a dense thicket of young poles often occurs around parent trees. Among these poles

there are always a certain number which form fine trees. As a rule, however, such a tree is inferior to a Pine, for its branch system is less dense and it has the disadvantage of being deciduous. On bleak hillsides Birch often has the best chance for a time, but Pines established among the Birch will form the most satisfactory shelter in the end; therefore it is advisable to rely on evergreen rather than deciduous trees for very exposed places, and care must be taken to plant them while quite small, for evergreen trees 2 feet to 5 feet high are rarely a success. Where the ground is naturally wet, Picea sitchensis should be used instead of a Pine. In the Southern Counties the Evergreen Oak (Quercus Ilex), might be more often planted for shelter, for it stands wind well and its dense head is a good wind-break. Its slow growth is, however, rather against it. D.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

December 18. — National Chrysanthemum Society's Executive Committee Meeting.

December 19.—Royal Horticultural Society Committees meet. No exhibition.

December 21.—Linnean Society's Meeting.

Our New Year Number.—Following our usual custom, the first number for next year, to be published on January 6, will be considerably enlarged, and will contain a number of special articles of more than usual interest. In addition, there will be a coloured plate of a handsome border of annuals and other flowers, as well as a beautifully-illustrated calendar giving the dates of the principal horticultural exhibitions to be held during 1912. We shall be glad if those secretaries who have not already done so will kindly send us the dates of their exhibitions, so that they may be included. The price of this special number, for which there is certain to be a great demand, will be, as usual, one penny.

"Irish Gardening."—With the December issue of *Irish Gardening*, Mr. D. Houston, F.L.S., the present editor, retires, and Mr. C. F. Ball of the Royal Botanic Gardens, Glasnevin, and late of the Royal Gardens, Kew, takes over the editorship.

Proposed dinner for gardeners at the International Exhibition —A movement is on foot to organise a reception and dinner for British gardeners attending the International Exhibition next year, similar to that held in 1903. A meeting of the dinner committee of that year has recently been held, and before taking any definite action the committee would like to ascertain the feeling of gardeners on the subject. No doubt the reception and dinner would be fixed for the day that most gardeners and their wives would be likely to attend, and would provide a fitting opportunity for them to meet under pleasant conditions. The proposal is that dinner tickets shall not exceed 5s. each, and that gardeners' wives, and, we hope, daughters or other relatives, would be welcome. Those gardeners who view the proposition favourably are asked to write to Mr. Alexander Dean, 62, Richmond Road, Kingston-on-Thames, so that the committee may have some definite data on which to base their decision.

Birmingham Chrysanthemum Show. We are asked to announce that the next Birmingham Chrysanthemum Show will be held at Bingley Hall on November 5, 6 and 7, 1912. The secretary is Mr. A. Noakes, 148, Bristol Street, Birmingham.

National Diploma of Horticulture.—The Council of the Royal Horticultural Society have requested the following gentlemen to be so kind as to act as a committee to enquire into the desirability of establishing a National Diploma of Horticulture, and, if it is thought desirable, to recommend what steps should be taken for the purpose: The Right Hon. A. H. Dyke Acland, Mr. W. Bateson, M.A., F.R.S., Mr. E. A. Bowles, M.A., Mr. F. J. Chittenden, F.L.S., Professor J. B. Farmer, D.Sc., F.R.S., Mr. C. R. Fielder, V.M.H., Mr. W. Hales, Mr. J. Hudson, V.M.H., Professor Keeble, M.A., D.Sc., Sir Daniel Morris, K.C.M.G., V.M.H., Lieutenant-Colonel D. Prain, M.A., F.R.S., Mr. H. J. Veitch, V.M.H., and Mr. Walter P. Wright.—W. WILKS, *Secretary*.

Root crops during 1911. — The preliminary statement regarding root crops during 1911, just issued by the Board of Agriculture and Fisheries, contains several interesting particulars: "The yield per acre of Potatoes is slightly larger than in 1910, while the total production, owing to an increase of more than 30,000 acres, is some 350,000 tons more than in 1910. Turnips and Swedes have yielded only 10½ tons per acre in Great Britain, the Scottish returns being much better than the English, and little more than 2 tons below the average, whereas in England the deficiency is nearly 5 tons. The total of nearly 16½ million tons represents a shortage of about 6½ million tons as compared with the average of the past 10 years, and the crop is the smallest since 1899. Mangolds are returned at 3½ tons per acre below the 10 years' average, being the lowest yield since 1896, while the total of under 7½ million tons is the smallest since 1903, in which year there were, however, 50,000 fewer acres under the crop than at present."

East Princes Street Gardens, Edinburgh.—Some important proposals for the improvement of the East Princes Street Gardens, Edinburgh, have just been laid before the Parks Committee of the Town Council by Mr. J. W. M'Hattie, the city gardener. These are in the form of two alternative schemes, called A and B. The former provides for the retention of the existing railings between the street and the gardens, and for a change in the beds on the upper plateau, by reducing these from fifty-four to fourteen. These would be less formal, and would have a greater grass space between them. It is also proposed to form a garden on the lawn space next the railway, and to lay out there thirteen new beds. The border between the railway and the gardens would also be broadened by adding 20 feet to its width, making it 30 feet wide. The scheme virtually makes the gardens into one, with ample grass space for pedestrians, and improving the general effect in every way. The alternative scheme suggests the removal of the present railings between the street and the gardens, and dividing the upper plateau into four sections, each being surrounded with a low fence for the protection of the beds. The cost would be small, the first scheme being carried out without any additional expenditure, while the second would cost £456. The annual cost would not be increased by either scheme.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Late-flowering Roses. — It may be interesting to record that on Saturday, December 9, I gathered good flowers of Roses Gloire de Dijon, Jessie and La France in my garden in Essex. The first-named was planted three years ago, and this year it commenced to bloom on May 14. Since then it has not been without flowers, a trait that more than compensates for its deficiencies.—E. A.

Single Chrysanthemums.—"A. D." in his interesting comments on my remarks about single Chrysanthemums touches upon the question as to what should be taken as our standard of excellence. He suggests the beautiful flat, broad-petalled Mensa. I agree that it represents the present high-water mark; but to my eye the ends of the ray florets (popularly called the petals) curve under themselves rather too much and give me the idea of its always having got to the "curling up" stage, an association which I could never allow in my type. If only we could get a Mensa with its petals straightened out, I think we should have nearly all that the most fastidious could want. On December 5 I had the opportunity at the Royal Horticultural Society show of seeing some splendid examples of new singles. My florist-eye was very pleased with a beautiful rosy cinnamon, or, as I heard it described, pale crushed strawberry over buff. This was exhibited by Mr. P. Ladds of Swanley, and is named Isabel Gray. I liked it very much indeed. Possibly not everyone thought of it as I did, for I was surprised to be told by the attendant that a paler, much more loosely-built variety, Margaret Gray, was preferred by the ladies. That was shock number two. The first took place some minutes previously in front of Messrs. W. Wells and Co.'s fine collection. A friend was making notes about what to order. "You have Ruby Beauty (very lovely soft ruby red) down, of course; and Lady Furness (an extremely taking shade, of a sort of salmony brick-red) and Merstham Jewel (reddish terra-cotta with a gold centre)?" "Yes." "And Mensa?" He gave me such a look and sharply said, "Weed Killer!" I always say it *is* lucky we do not all like the same thing. It must, however, be nearly this as far as Lady Furness is concerned. I spent a long time in front of Wells' charming group, and everyone went for Lady Furness. The moral, with which I think "A. D." will agree, is: Do not let us (those, that is, who have the power of life and death) be too exclusive in our judgments. The world is not all florists. The majority are *flowerists* who to-day do not like what to-morrow they will.—JOSEPH JACOB.

Ferns in towns. — The recent notes in THE GARDEN on Ferns and rockeries serve to show the great value of our hardy Ferns in town and suburban gardens. What is more, I have in London obtained great pleasure from a border of hardy Ferns in which no rockwork of any kind is used. The border, 4 feet wide, is at the foot of a wall which shuts off all direct sunshine, though the position is fairly light. The situation is, however, so dry that it was necessary to husband every drop of water that fell on the border, either in the shape of rain or when applied artificially. With this object in view I made the border to slope slightly to the back against the wall, so that no water whatever was wasted. The soil was fairly

good, and, a little leaf-mould being mixed with it, the Ferns were planted therein. The Ferns chosen were superior forms of the Lady and Male Fern, selecting only those of good free growth, all stunted and depauperated varieties being omitted. The result exceeded anticipations, for the Ferns grew luxuriantly and were so beautiful as to gain the admiration of everyone. The great advantage of Ferns being planted in this way is that in hot, dry weather one can of water will go as far towards moistening the soil as half-a-dozen would do if poured on a sloping bank. Of course, only the more vigorous Ferns are suitable for this method of treatment, but there is now a great choice among those of a good free habit of growth.—H. P.

Bitter-pit in Apples.—It may interest "Scientist," who writes on page 581, to know that at the Four Northern Counties Fruit Congress and Show on November 15 and 16 at Newcastle, no bitter-pit was reported. I was present at the British Fruit Show (Royal Horticultural Society) in October, and it is common knowledge that bitter-pit was largely in evidence. Is not this a sign that the disease is largely due to climatic conditions? for in the North we never feel drought (speaking generally) as do Southern growers.—J. BERNARD HALL, *Rawdon, Leeds.*

Late flowering of Yuccas.—We have fifteen plants of Yucca recurva growing in clumps and as isolated specimens in various parts of these gardens. On November 20 I counted nineteen flower-spikes appearing on the plants. Although old-established, during the last five years only seven plants have produced flowers. I attribute this late and unusual flowering to the hot, dry summer, when the plants made no growth and were thoroughly ripened. Since the autumn rains fresh growth has been made, and the flower-spikes, which are 12 inches to 18 inches in length, have made their appearance, and will, no doubt, be destroyed by frost.—J. LISNEY, *The Gardens, Berwick House, Shrewsbury.*

Colletia cruciata.—This singular Chilian shrub, alluded to in THE GARDEN for December 2, page 588, apart from its other striking features, furnishes one of the best examples of dimorphism among our hardy shrubs. It was introduced in the year 1824, but would appear to have soon dropped out of cultivation. The plant itself is almost built up of large, triangular-shaped, flattened spines of a woody texture arranged in pairs, each pair set crosswise to the next. Soon after another Colletia was introduced under the name of C. spinosa or horrida. This is a shrub of the same style of growth as C. cruciata, but instead of the triangular spines, those of spinosa are rigid, awl-shaped and from 1 inch to 1½ inches long. They are arranged as in C. cruciata. There was a specimen of C. spinosa which, about sixty years ago, produced seed in the garden at Bicton, and this seed being sown, one of the plants which was produced therefrom at once attracted attention from its distinct appearance. As it grew, specimens were sent to Dr. Lindley, who, overlooking the fact of its identity with C. cruciata, named it bictoniensis, a name frequently used now. Mr. Barnes, who was then gardener at Bicton, stated that it was a seedling from C. spinosa, but this was disputed by many. Time, however, proved that he was right, for in 1877 a specimen of C. cruciata in Italy pushed out shoots identical with C. spinosa. The same thing has been frequently noted since that date, thus proving that these two plants, although so unlike each other, are really but one species.—A. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

PRUNING PEARS.—When the conditions are suitable, the work connected with this department should be pushed on. The pruning of Pears should follow the pruning and training of Cherries, Apricots and Plums. Wall-trained trees which have attained their full dimensions, provided they are in a healthy, fruit-bearing condition, will need nothing more than the cutting back to one or two buds of the growth which was made in the summer and the judicious thinning of the spurs, should these have become too crowded. Young trees which have made overstrong growth should be root-pruned, and when filling in the soil mix a good quantity of old brick rubble with it and ram it quite firm. The pruning of pyramid and bush trees may be done when the wall trees are finished. In effect the pruning of these will be much the same as advised for the wall-trained trees. Each branch should be treated as a single cordon, and the branches must stand out clear of each other, in order that light and air can penetrate right through the trees. When pruning is finished, the prunings should be collected and burnt. Afterwards fork up the ground beneath the trees. In some circumstances it will be beneficial to fork in a quantity of lime rubble to sweeten the soil.

Insect Pests.—An effort must be made to destroy the various insect pests which attack all kinds of fruit trees outdoors. American blight is one of the worst offenders, and very hard to get rid of when once established. An effective way to deal with this pest is to touch the affected parts with a small brush saturated with methylated spirit, but this must be used with extreme care. On no account must the spirit be rubbed in. Petroleum emulsion, too, is an excellent remedy if used according to the directions. This is best used during mild, damp weather. Trees which have been affected by green or black fly should be thoroughly saturated with this insecticide, and if they are growing on walls, the walls too must receive attention in this respect. Petroleum emulsion is also an effective remedy for red spider. Scale should not be given much freedom, as once it gets fairly established it is difficult to get rid of. Trees affected by this pest should be saturated with a mixture of lime, soot and soft soap. In two or three days it will be found that the insects can be easily removed with a brush. Orchard trees may be cleansed of moss and lichen by the use of this mixture. In some districts birds do a great deal of damage by bud-picking. Gooseberries, Plums and Cherries should be occasionally syringed with a mixture of lime and soot; this is usually sufficient to keep these marauders at bay. Ants have been very troublesome of late years. These busy little insects are capable of doing a great deal of damage, especially among the fruit-blossoms. A mixture which we have found very effective in destroying this pest is the Ballikinrain Ant Destroyer. The present is the best time to use this mixture, as the ants are now working in the warm houses and their food supplies are more limited than during the summer months.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

STRAWBERRIES.—The first batch of plants may now be prepared for forcing if ripe fruits are required early in the season. Select only the strongest and best plants for early use. Do not commence with a high temperature. If sufficient heat is circulated in the pipes to keep them safe from frost, the plants will soon show signs of active growth, after which the temperature may be gradually raised. A position near the glass is essential, and if the staging can be erected over a bed of fermenting material, it will be found better than plunging the pots, as is sometimes recommended, in a slight hot-bed. Ventilation should be given freely during mild weather, and the plants sprayed overhead on bright days. Do not neglect to supply a sufficient quantity of water to the roots, and as growth proceeds a little soot-water and artificial manure may be given at intervals.

Early Figs in Pots.—These should now be removed and plunged in a hot-bed of fermenting material that has been prepared for the purpose. The temperature of the hot-bed should not be allowed to rise above 70°, and if any rapid decline of the heat is noticed, some fresh material must be added. The atmospheric temperature may now be raised to 55° or 60° at night, with a corresponding rise during the day.

Early Vines in Pots.—Where these are used for the earliest supplies, they should now be making some progress, and the development of buds and leaves will be the best guide as to the gradual raising of the temperature; but unless there is an ample command of heat, it is not a wise plan to allow the temperature to rise too high until all danger of very severe frost is past. As often happens, the thermometer may reach its lowest point during the month of February, when it is found very difficult to afford the heat that has been easily maintained during the previous two months. Any check at such a critical time will seriously affect the crop. It is advisable then to provide a temperature which will allow of a gradual rise even in the most severe weather, trusting to a vigorous forcing when better conditions prevail. Disbudding should be done while the shoots are quite young, leaving only the strongest and best placed, and, when the bunches have formed, stop the growth at the second leaf beyond the bunch and remove all duplicate bunches, leaving the final thinning of these till after the berries are set.

Vine Borders.—If Vine-planting is contemplated next spring, the present is a suitable time for preparing the materials, the mixing of which will require to be modified according to the quality of the turf at the disposal of the planter, which forms the basis of all artificially-compounded fruit borders. Medium loam requires the addition of lime or mortar rubble and half-inch bones, but other ingredients may be added according to circumstances, such as road scrapings, wood-ashes and soot, or charcoal and sand where the staple is of a heavy, clayey nature. The turf should be procured, if possible, from an old pasture and cut after it has got a little frost, as this serves to get rid of some soil pests that might afterwards prove troublesome. Drainage must be in a perfect condition. As a rule, Vines do best in a rich and heavy compost, with perhaps a lighter mixture for Muscat of Alexandria. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle.

THE FLOWER GARDEN.

VARIETIES OF NARCISSUS TRIANDRUS.

A NEW LINE IN NARCISSUS HYBRIDISM.

IN the Daffodil Number of THE GARDEN dated August 19, page 392, is a short note by Mr. Malby on Narcissus triandrus, giving at the end a list of varieties of this species. In a subsequent issue is a critique by the Rev. J. Jacob, I think, who asks where Mr. Malby got his names and references from, as he had not seen them in any work; and



NARCISSUS TRIANDRUS PULCHELLUS.

as I have not seen Mr. Malby's answer, I wish to give the information on my own account and to call attention to the possibilities to be got from one (an obscure form) of the sub-species of triandrus. Narcissus triandrus pulchellus (see illustration).—The references to this and all other species and sub-species of Narcissus are in Baker's "Amaryllidæ," page 5; also most are figured under one or other varietal names in the *Botanical Magazine*, sometimes one form being subsequently redescribed under another name. References are as follows:

N. triandrus cernuus (Salisbury).—*Botanical Magazine*, plate 48; also Sweet's "Hortus Britannicus," page 681, Series 2; habitat, Portugal, 1629.

N. triandrus nutans (Haw.) = *N. trilobus*.—*Botanical Magazine*, plate 945, August 1, 1806, says: "Flower sent as nutans by Mr. Haworth seems to be intermediate between Jonquilla and triandrus." This form (from the illustration) has pale yellow perianth and short, deeper cup.

N. triandrus concolor (Haw.).—*Botanical Magazine* (see plate 1262). This is a uniformly pale yellow form, and is usually offered by Messrs. Barr and Sons.

N. triandrus pallidulus (Graells).—*Botanical Magazine*, plate 6473A, Vol. 36, 1880; also Baker in *Gardeners' Chronicle*, 1869, page 686.

N. triandrus pulchellus (Haw.). — *Botanical Magazine*, plate 1262; Sweet's "British Flower Garden" ("Hortus Britannicus"), Series 2, page 99, Portugal. In the *Botanical Magazine* it is called variety luteus.

But little difference is shown between colour of perianth and corona, while as grown by me for two or three years the corona is creamy white and perianth of a butter yellow, the only known form of Narcissus which has a corona paler than the perianth. Attention is also drawn to a form called triandrus juncifolius reflex, which I do not know, and quoted as follows: "There are three or four reflex Jonquillas—1, yellow; 2, all white; 3, cup yellow, petals white; and 4, cup white, petals yellow." This last, pulchellus, is responsible for my notes. It is the latent possibilities of this sub-species that I desire to call attention to.

The trend of Narcissus hybridisation has been for large, shapely white trumpets; large, flat-eyed Engleheartii and Poeticus; and, of course, the white-perianthed Ajax, with red trumpet of our dreams, which, by the way, judging by recent breaks of colour, is nearer than we thought it a few years ago; and last, the most graceful and taking of all, the triandrus hybrids.

Now a new line of hybridisation is open to us through triandrus pulchellus — a golden Ajax with white trumpet, a golden Gloria Mundi with a white, red-rimmed cup, and a white Ajax with a real white cup, not a cup of the colour a Sweet Pea-grower would call rich full yellow. The opportunity is there if we like to take it. I am convinced that there is in the triandrus blood a tendency towards white coronas, even when the parent used is t. albus or calathinus, as notice the beautiful triandrus hybrid Chloe, shown at Birmingham Show, April, 1909. This has a distinct white edge to the cup, and is strikingly beautiful; also the long trumpet triandrus hybrid Dorothy Kingsmill frequently throws a white-edged trumpet with me. Both are from triandrus calathinus. So we have here undoubtedly a tendency, without using triandrus pulchellus, towards white in the trumpets.

Now, by using triandrus pulchellus we shall increase this tendency, and if the other parent used is the correct yellow one, we should have at least paler cups than petals. It is, of course, no use for us to use an ordinary lemon or yellow Ajax, as, when you carefully consider, there are so very few which have trumpets even so pale as to be as light as the petals. Nearly all have paler petals, and, should pulchellus be used on these, you would probably only neutralise the pale cup of pulchellus by a darker cup. At the same time, you may get white-edged ones like Chloe.

My greatest difficulty has been to get a truly concolorous Ajax with good constitution and form, and after quietly studying the Ajaxes I determined on the common obvallaris, particularly as it is, like pulchellus, an early flowerer. It is a concolorous Ajax of faultless form, and holds its head up, which is wanted. Having at last procured bulbs of N. triandrus pulchellus (from Messrs. Barr) and flowered them, I got seeds on pulchellus. I tried on obvallaris, but they did not take, and I have some few healthy seedlings just breaking through for their third season, and hope to see in another year a lemon perianth and cream cup—a reversed bicolor.

Withington, Manchester. J. HENRY WATSON.

DEAD LEAVES AMONG ALPINES IN WINTER.

A GOOD deal of injury is frequently caused to alpine flowers in the winter months by dead leaves from trees and other plants being allowed to remain about them and to cover them partially or even entirely. In theory these may be useful in protecting some of the more tender plants, but in reality they are injurious in several ways. Our winters are too wet, and the leaves keep the foliage of the alpines constantly in a moist condition. They also provide harbour for slugs about the plants, Clearing them away calls for both time and care, but it will be compensated for, and, where there appears any need for it, a little sand and soil about the necks of the plants will serve a much more useful purpose. S. A.



A LARGE PLANT OF HIBISCUS SYRIACUS. (*See page* 605.)

TREES AND SHRUBS.

COLLETIA CRUCIATA.

(THE ANCHOR PLANT.)

THIS Chilian shrub is grown in a few gardens, and were its merits better known, the number would certainly increase. "Nicholson's Dictionary" gives the height as 4 feet. There is, however, a plant at Kew, growing in a sheltered position outside, 9 feet in height; while at Bicton, Devon, it grows 12 feet high, five plants covering a space 50 feet in circumference. The bright green growths are very rigid, the branching dichotomous, each branchlet terminating in a stiff spine.

The leaves are quite tiny, not more than a quarter of an inch long. The flowers are small, but freely produced, urn-shaped, waxy white or cream in colour. There is a decided Hawthorn-like fragrance, which is very noticeable some distance from the plants when in flower. The season of flowering appears to vary in different localities. At Kew it flowers in autumn, while in Cornwall the blooms are produced during November and December.

Colletia cruciata is perfectly hardy in warm districts in the open, but in other parts of the country a sunny south wall would be the best position. When not in flower the distinct character of the plant gives it an attractive and interesting appearance. Clothed with flowers such as depicted in the illustration, no doubt should be expressed of its beauty. The lasting qualities of the flowers are noticeable.

THE SYRIAN HIBISCUS.

(HIBISCUS SYRIACUS.)

THE Syrian Hibiscus may be numbered as one of those unfortunate plants that are known under various names. It is a deciduous shrub belonging to the Natural Order Malvaceæ, and is sometimes wrongly referred to as the Tree Mallow, a name which rightly belongs to Lavatera arborea. There is also a little difference of opinion regarding its Latin appellation, for while it is, correctly speaking, Hibiscus syriacus, yet it is just as well known in gardens as Althæa Frutex. It is said to have been introduced to this country during the latter end of the sixteenth century, and, considering that it has been known for such a very long time, it is more than surprising that it has not made greater strides in public favour. As a sun-loving plant it was put to a severe test this year, and after many rainless weeks it continued to create a bright show of flowers. There are numerous varieties, of great diversity in colour, and they all seem to be at their best throughout the month of August. The bushes vary from 4 feet to 20 feet in height, so that they are very accommodating subjects for informal planting. A warm position in a light, sandy soil seems to suit this Hibiscus best, although it is not fastidious as to its surroundings, for it is one of the few flowering shrubs that will succeed in the heart of a large city or town. This year some very creditable trees in full flower were to be seen in the Embankment Gardens, London. A few of the most approved varieties are alba (single, white) and albo plena, pæoniflorus (double, pink), Leopoldii (light crimson, large flowers), Hamabo (single, pink, dark centre), cœleste (single, blue), Violet Clair (double, blue) and Pompon Rouge.

EUCALYPTUS GLOBULUS IN NEW ZEALAND.

I AM sending two photographs of views in our Christchurch Botanic Gardens. One is of a very fine specimen of Eucalyptus globulus, or Blue Gum [page 606], and the other of a fountain which has only recently been erected. [The latter is not suitable for reproduction.—ED.] As they are particularly good pictures, you may care to reproduce them in your valued paper. W. G. CARL BENMELBURG.

St. Albans, Christchurch, N.Z.

THE FRUIT GARDEN.

VINES AND PEACHES IN THE SAME HOUSE.

WHERE these two kinds of fruits are grown in the same structure, there will not be much difficulty on the part of the cultivator in giving them proper treatment at this season of the year when the fruit is all gathered. The common mistake made by inexperienced cultivators is that of neglecting to give sufficient water to the roots. In the case of Peaches, this lack of water seriously affects the buds. Not in the autumn, however, is the bad effect to be seen, but in spring, when the time comes for the buds, both of fruit and leaves, to swell. The fruit-buds often at that time drop off wholesale, and although a too dry border is not the only reason for this unsatisfactory condition, it is the chief one. Much watering in spring will not repair the mischief done in the autumn by neglecting to keep the border soil sufficiently moist. Vines, too, must not be allowed to go without water in autumn-time, but in neither case must the soil be saturated from week to week. If the drainage is deficient, extra care must be taken to avoid a water-logged border, else the soil will soon become sour and unfit for free root action. The shanking and generally unsatisfactory state of Grapes in summer-time often results from lack of attention to the Vines in the autumn.

Ventilation is also an important matter. Even in slightly frosty weather the ventilators must be left open night and day where the Vines and Peaches are leafless and the sole occupants of the house. If some Grapes are still on the Vines, a rather dry atmosphere is necessary, and care must be taken to keep out frost. The temperature must not exceed 50°. Many amateurs like to grow other kinds of plants in their fruit-houses also. In such instances it will be obvious to all cultivators that no set rule can be followed; but moisture-loving plants should not be placed in houses of this kind in the winter-time. Zonal Pelargoniums, Heliotrope, Fuchsias, Ageratum, Petunias and similar plants used for bedding-out purposes may all be safely kept in such houses without the least injury to the fruit trees, as they do best in a rather dry atmosphere and require plenty of air. The watering of these pot plants should always be done early in the day. AVON.



A FLOWERING BRANCH OF COLLETIA CRUCIATA.

FRUIT NOTES.

WASHING TREES.—When all the leaves are down and the trees are at complete rest for the winter, thorough washing ought to be done, the main trunk and accessible branches being dealt with by a short-bristled brush, and the others by the aid of a knapsack or other efficient sprayer. Excellent washes can be purchased from advertisers in THE GARDEN, and if they are used according to the directions supplied with them, the result will prove eminently satisfactory. No efforts must be spared to get into all crevices, cracks, crannies and forks, because it is therein that enemies and their eggs like to lurk. When dealing with the head of the tree, see that the solution is distributed in the form of a mist, as it will then adhere, whereas

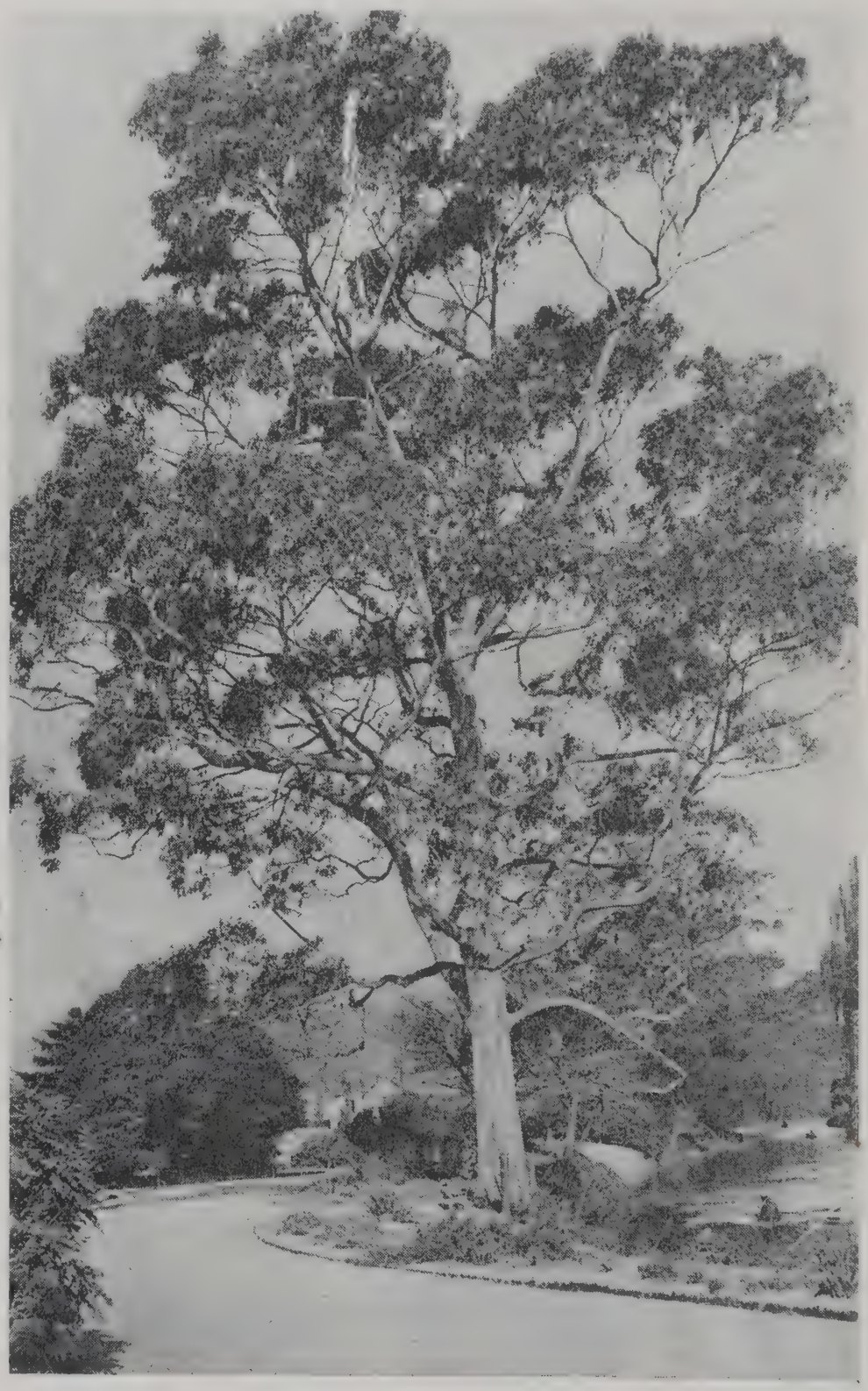
if applied heavily much would run off. In winter spraying the operator should always work from the windward side of the tree, and it is wise to wear old clothes, hat and gloves, as the burning properties of these washes will cause discomfort and ruin good clothes.

GREASE-BANDS.—These will have been in position on the trees for several weeks, and it is imperative that they shall be examined at frequent intervals, so that their tackiness may be fully maintained. The particular enemy for which they are used is the wingless female winter moth, and she is always quietly making her way up the tree. To find a dry band means an easy passage, while the effective one stops the advance forthwith. Prepared bands are readily procurable, but cart-grease answers splendidly, provided that the necessary time to examine and restore the stuff according to requirements can be found.

MULCHING.—In frosty weather, which we hope that we shall have in the next month or so, the manure required for mulching fruit quarters can be wheeled on with a view to spreading immediately or later, as may be the more convenient. Subsequently, when the ground has opened up sufficiently, the stuff may be dug in, care being taken not to work so deeply as to injure the roots. On borders it is usually wise to make absolutely sure that the soil at the foot of the wall is pleasantly moist before mulching. The soil may be tested if there is any doubt on the point, and if it is found to be dry, water heavily, say, four gallons to the square yard; and if the trees are old-established ones, supplement the pure water with equally generous applications of weak liquid manure. As soon as the surface has dried sufficiently to permit of it, hoe carefully or prick over lightly with a fork, and finish the task by spreading the short manure.

OLD TREES.—Trees in standard or other form which have been planted for many years frequently suffer through lack of food, and opportunity ought to be taken of slackness in the winter to improve the soil in which the roots are working. Such trees often bear large numbers of small fruits and make little new growth, and both these things would be benefited by the use of strong liquid manure. When the ground is open, the stuff can be poured on and left to soak in. Three or four, or even half-a-dozen, applications will be required, but this must be decided on the merits of each case. When the trees are in grass, holes 3 feet deep and the same asunder must be bored with a crowbar, commencing within a couple of feet of the bole and extending outwards to a similar distance beyond the spread of the branches. The holes must have a good diameter at the top, and may be repeatedly filled between now and the end of February, afterwards filling in firmly with rich soil. The strongest natural liquid manure at command may be safely given at this season, whereas in the summer it would have to be weak, owing to risk of injury to the roots.

WALL TREES.—The pruning of trees trained on walls should be pushed forward with all possible speed. There must be no scamping of the work; but the desirability of getting it all finished as quickly as can be made convenient is undisputed. See that there is ample space left for the leaves to have full light and air when they are produced. Recently planted trees must not be nailed or tied in until soil settlement has ceased.



THE BLUE GUM TREE, EUCALYPTUS GLOBULUS, IN CHRISTCHURCH BOTANIC GARDENS, NEW ZEALAND. (*See page* 605.)

BASIC SLAG AND KAINIT.

MANY large growers apply basic slag and kainit at this season, to be followed by a smaller dose of superphosphate in spring. This is, beyond doubt, the best plan of feeding fruit trees with phosphates and potash. FRUIT-GROWER.

THE ROSE GARDEN.

THE WINTER PROTECTION OF ROSES.

[*In Reply to a Correspondent.*]

I TAKE the opportunity in reply to your correspondent's queries to state my views upon this somewhat debated question. In my opinion there can be no worse practice than to cover the soil of the Rose-beds and borders with wet farmyard manure and to allow it to be placed close to the growths of the plants. I commend the practice of lightly digging in some good, well-decayed manure during November, and of leaving the surface soil as rough as possible. By rough I mean leaving the soil in small lumps, and not raked level and powdered down as our jobbing gardener is so fond of doing. The damp, cold manure on the surface not only keeps the roots cold and wet, but it excludes air and sunshine, and when frost comes, if the manure touches the growths, they undoubtedly suffer thereby.

I advise your correspondent to remove the manure and Fir branches at once, and to only replace the litter when the winter seems really to have set in. Instead of the manure, just draw around each bush plant some loose soil, ashes or burnt earth, the latter for preference, heaping it up about four inches around each bush. This can remain until the end of March, and if the winter happens to be very severe, it will be found that the lower eyes are quite unharmed. Even though the soil is frozen, when a thaw sets in the frost departs out of the wood without leaving any injurious effects. It is a strange fact that tender plants upon north walls have been known to suffer less from the effects of frost than those upon south walls, simply because they were shielded from the sun's rays when thawing took place. Newly-planted Roses should be protected upon the same lines, excepting the Hybrid Perpetuals and other hardy groups. Last year I planted out Rayon d'Or, and although this Rose is admittedly a very erratic one as regards the solidity of its growths, the plants emerged from the winter unharmed. They had a covering at the base of burnt earth. The tops were quite black, as far as the burnt earth, before the winter was over.

Some dry Bracken, Fern, or evergreen and Gorse boughs stuck among the growths of Roses are good, as they form a lodgment for the snow—Nature's own warm blanket—but they should be removed at mild intervals. Standard Tea and Hybrid Tea Roses should have dry Fern, Gorse or straw stuffed into the centres of the heads and lightly tied around with straw-bands or osiers, and tender Roses on walls may be protected with mall evergreen branches, and when the weather

is very severe bast mats should be hung up in front. This would only apply to very tender sorts, such as Lamarque and Climbing Devoniensis.

There are many who become quite alarmed about the matter of protecting their Roses, and they have foretold a winter of great severity. The writer has a number of Tea Roses growing as huge bushes that have never had the least artificial protection this last five years, and they are marvellously vigorous. The location is near the sea, which undoubtedly counts for much; but I think there is far too much concern about the winter. Of course, we may have a severe winter that will try a number of our later introductions, so that it is well to carry out the soil covering at once, and the matter of evergreen boughs can wait until frost threatens in earnest. In reply to your correspondent, I should say that the wet manure was responsible for the damaged growths, and an over-abundance of strawy manure notoriously engenders mildew. P.

THE NATIONAL ROSE SOCIETY'S AWARDS TO SEEDLING ROSES.

THE explanatory statement issued by the president, the Rev. J. H. Pemberton, which appears in your issue of December 2 under the above title, appears to require some comment. In supposing a gold medal to have been awarded, Mr. Pemberton proceeds to say that all that is conveyed to the public is that on a given day and at a specified hour the judges considered that six blooms of a seedling Rose were so good as to justify a gold medal being awarded to the raiser. Here let careful attention be drawn to the fact that it is the general impression conveyed not to the elect, but to the public—whose rosarian education, be it noted, is avowedly one of the society's objects—which is the all-important point. Speaking with all due respect as one of the afore-mentioned public, I venture to suggest that it conveys very much more than that. Undoubtedly it conveys that the variety so honoured is one of outstanding merit, and, by inference, that it will well repay the extra cost involved.

Mr. Pemberton further states at the end of his article that an award does not help the public in selecting the best sorts, to the exclusion of worthless varieties or those of little value. That, alas! is only too true, as my own unfortunate experience readily proves; but surely, is it not a little extraordinary to expect the uninitiated to know that the gold medal—the highest award the society can give—is not to be taken, as it would be in any other society, formed for whatever purpose, as the hall-mark of the superlative? No! he is expected to understand—again to quote Mr. Pemberton—that the award is given for the encouragement of the raiser! In view of the contention that the award is *not* to be taken as a guide, is it not a little curious that one at least of our noted growers makes a point of advertising a complete set of gold medal Roses, while in all catalogues the magic words "awarded gold medal of N.R.S." are affixed to varieties so honoured? Must it not be the opinion of the trade (and who so likely to know their own business?) that such an affix undoubtedly does help to sell a variety?

Let the president, for whose magnificent work on behalf of the Rose all lovers of that noble flower will be for ever grateful, imagine the afterthoughts of a new-comer in the ranks of Rose-growers, and a small man at that, who, having no rosarian friends and knowing not of the National Rose Society, orders a selection of gold medal Roses from one of the catalogues, and then consider whether it is not time for some other method to be adopted.

In conclusion, may one suggest as a possible means of ensuring more satisfactory results the formation of a trial-ground, to be placed under the charge of a resident superintendent—preferably an amateur—to whom, say, one dozen plants of each variety should be forwarded by would-be medal winners. These at certain intervals should be considered in judgment by an "awards" committee, whose decision should be final. If all plants were to be eligible for an award for, say, two years only after planting, and then to be removed, together with any variety which had been awarded the gold medal in its first season, the difficulty as regards space would be largely obviated.

Would not the winning of a medal under some such conditions as the above ensure that the public would indeed be getting a lead from the society, and so induce them to become, even as the writer, A MEMBER?

REFERRING to your correspondent Mr. W. Kitley's remarks and queries on page 554 *re* the above, I respectfully submit that before your correspondent again puts pen to paper he should make himself acquainted with the facts, and he cannot do better than join the National Rose Society, whose literature will give him all the information he desires. If he had been a member of that society, he would not, I venture to say, have been under the misapprehension that he appears to suffer from, *i.e.*, that every Rose is eligible for, and has been submitted to, the judgment of the National Rose Society under this competition. He gives you a list of about a dozen beautiful Roses. He might have made it a hundred. But I think, with one possible exception, not one of his list of Roses was ever "entered" for the competition, and therefore has not been adjudicated on. Under these circumstances I submit, to use Mr. Kitley's opening words, that it is *not* "worth while to consider" the questions your correspondent raises. HERBERT E. MOLYNEUX.



THE NEW WINTER-FLOWERING BEGONIA ALTRINCHAM PINK (*See page* 610.)

THE question, "Is the gold medal awarded to the best Rose?" is answered in the negative by the Rev. J. H. Pemberton in the issue of December 2, which in my opinion shows conclusively the worthlessness of the award. Instead of being the blue ribbon or the Victoria Cross of the rosarian, the gold medal is practically valueless. The last question, "Is it the best way to ensure perfection and progress?" is answered in the affirmative, "in so far as it encourages the raiser." But how can a worthless award, as it is shown to be, have any stimulus or encouragement to a man who is well aware of its character? If, as it is hoped, it could be raised to the same value as the Victoria Cross and blue ribbon, then it would be a prize to strive for, and would undoubtedly result in giving rosarians a grand new race of Roses. WILLIAM KITLEY.

THE GREENHOUSE.

CHRYSANTHEMUMS.

DECEMBER NOTES.

NOW that exhibitions are over, the interest of cultivators will be chiefly centred in the matter of selecting varieties to grow for next year's display of bloom. This year, more than in any other that I remember, naturally late-flowering varieties have been more unsatisfactory on early crowns than on later ones. I need only refer to one sort, Hon. Mrs. Lopes. Last year many rather late crowns were useless; this year, buds taken quite a month later than usual have turned out the best of all. Cultivators, however, must not on that kind of behaviour of the plants treat them for late crowns next year, as the weather conditions may be altogether different. The wisest plan is, of course, to treat a few plants of nearly every variety for the production of early crowns and a few for later ones; then a certain number of blooms may be expected to develop at the right time.

The Number of Plants and Varieties to Grow.—There are so many lovely sorts to select from that the amateur may well be excused for giving way to temptation and cultivating quite a host of them. It is, however, much the wisest plan to resist the temptation and to make a very close selection, growing fewer varieties and more plants of each. Whether for exhibition or grouping and cutting purposes at home, the best results are obtained when a fair quantity of a limited number of varieties are grown. Where six plants of one sort are cultivated, there is a good chance of obtaining at least half-a-dozen excellent exhibition flowers, some suitable for placing in several stands on the show table or for making a good display in a group. Although there are, as I have already stated, a large number of very fine new varieties available, the amateur cultivator especially should not discard too many old ones and depend upon the new in their place. The very best and most reliable of the older sorts should be retained, and the new ones tried on a scale consistent with the convenience the cultivator possesses. Then, if some of the new varieties fail, the grower will not be entirely put out and disappointed.

How to Treat Plants with Few Suckers.—Some varieties produce suckers much more freely than others, and, of course, the shy cutting-producers must receive special treatment. There are two ways of dealing with the plants, both being, as a rule, successful. Having cut down the old stem about a foot from the base, the surface soil in the pot is removed carefully and then replaced by some nice gritty loam in which plenty of leaf-soil has been mixed. This compost must not be rammed hard down, but gently pressed with the fingers. The other way of dealing with the old roots is to turn out the ball of soil, remove most of it from the roots, and then plant the latter fairly close together in boxes about 6 inches deep. The new compost must be light and gritty, but of good quality. After the first thorough watering much care must be taken not to keep the soil in a saturated condition, and if placed in a little heat and near the glass the old roots will soon be surrounded by sturdy, healthy suckers.

The First Insertion of Cuttings.—The latest-flowering varieties must be propagated first, a suitable time to commence being the middle of December. Propagate the cuttings under cool conditions and singly in small pots. Simply guard them against frost and excessive moisture. AVON.



ROSE CAROLINE TESTOUT IN A TOWN GARDEN.

THE TOWN GARDEN.

GROWING GOOD GARDEN ROSES.—If there is one thing more than another that the amateur in gardening delights to have, it is a good Rose, and whether it be intended for personal adornment—a sort of wherewithal to talk about in the morning train and as a further proof of his own abilities in that direction—or for the embellishment of his own home garden, the result is the same, and affords the cultivator a good deal of satisfaction. Indeed, the home-grown Rose, like the home-made jam, should, as a matter of course, recommend itself—so obvious is its superiority—to one person at least. Gardening has well been described "as the purest of human pleasures," and if the pleasures of it are occasionally interrupted by a few failures—the Thorns or Briars by the way—the ultimate successes that such failures invariably lead to will be the more highly esteemed when that long-looked-for consummation is finally attained.

A GOOD GARDEN ROSE.—This phrase might very naturally confuse the amateur, who would imagine all Roses to be garden flowers. This is not always so, however, since many sorts require greenhouse treatment to ensure that their continuity of growth be turned to good account. Apart from this, there is a significance in the term better understood of the professional than the amateur. It carries with it, indeed, the implication that the variety possesses decorative merit in greater or less degree, is hardy, vigorous and free-flowering, and as such capable of giving a good account of itself. These, then, are the primary attributes of a good garden Rose, and any variety living up to such a reputation will not long remain unpopular.

ONE OF THE BEST OF SUCH ROSES, and therefore one of the most popular, is that depicted in the accompanying illustration. It is the more valuable for our present purpose, since it plays its part so well in a town garden but little removed from the great metropolis itself. How well it has played its part no words of mine can tell half so vividly as the picture. What is there conveyed, too, has been attained in a town garden not wholly given up to Rose-growing, or even to the extent of making a speciality of them; rather has it shared with much else—choice shrub, herbaceous plant, or Carnation—a garden space not altogether ideal, yet eminently satisfactory so far as this fine and well-established bush is concerned. Hence it is given here on the principle that others may "go and do thou likewise." Not least among the good attributes of this excellent garden Rose is the fact that the tree or bush will often last well into mature and sometimes even old age, and with nothing more than intelligent pruning and thinning provide quite a rich harvest of flowers.

PLANTING RATHER THAN PRUNING should, however, be receiving attention at this time, and, if not yet completed, I would urge that the work be taken in hand forthwith. An essential to success in all Rose-growing in the open is the preparation of the ground. To scrape out a shallow hole without the least preparation of the soil below, and to cram roots and fibres into such a place, merits what it invariably receives—failure. Therefore, at the beginning dig the ground as deeply as circumstances will permit and incorporate well-decayed manure and bone-meal in the lower soil. S. N. N.

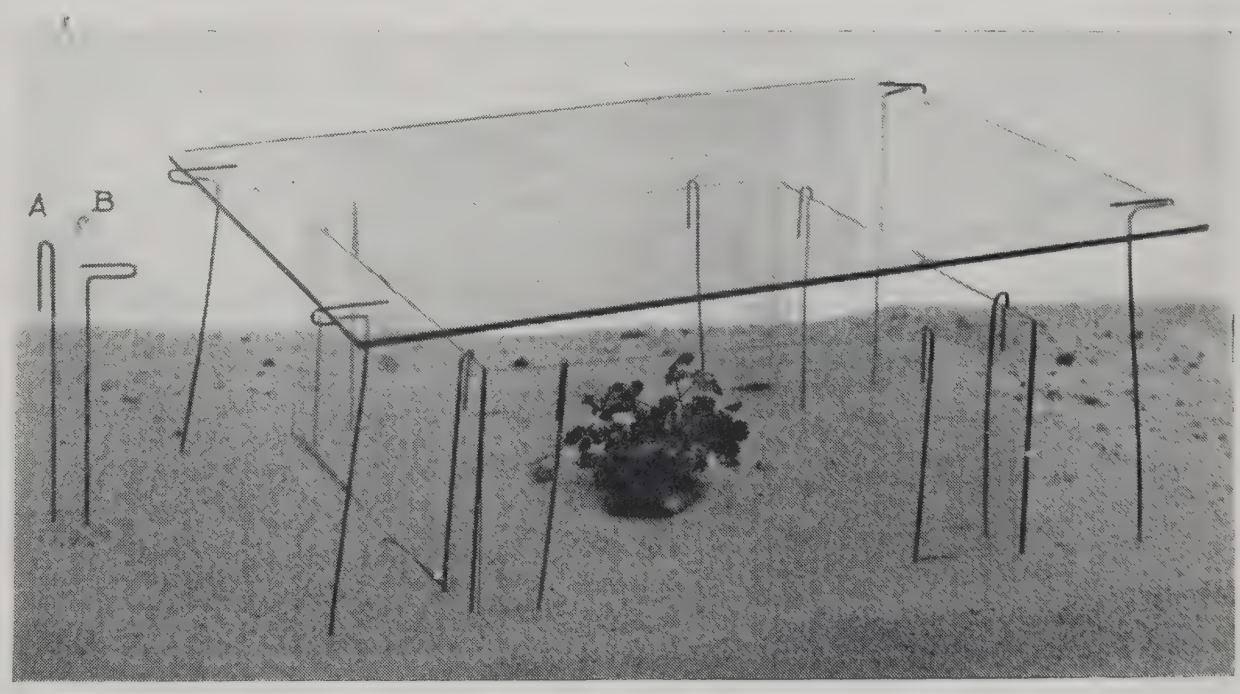
GARDENING FOR BEGINNERS.

PROTECTING ALPINES AGAINST WIND AND RAIN.

WET and windy weather is now upon us, and, in addition, the more or less ever-present fog, with all its accumulated dirt and grime, which it deposits upon our choicest winter-flowering alpines, particularly the silky Androsaces. Hence the time has arrived to take steps to combat this evil, which we suburban-dwellers feel to an even greater extent than country ones. A very effectual, inexpensive and rapidly-arranged "protection" is made as follows, and it has the further advantage of cutting off the minimum of light, being readily adapted to various sizes, such as single plants, or clumps, and so useful for winter Crocuses, early Narcissi, &c., in the rock garden. Moreover, while it is rigid, it is capable of giving sufficiently to render a good account of itself in windy weather. All that is needed to protect, say, a clump of a dozen Crocus Imperati flowers from wind and rain are four pieces of glass, each 4 inches by 8 inches, one piece 10 inches by 10 inches, and twelve pieces of wire about 8 inches long and not less than one-sixteenth of an inch thick. Bend eight of the wires like A in the accompanying illustration, now hold one of the strips of glass so as to form one side of a square about the clump of blossoms, press the lower edge gently into the soil three-sixteenths of an inch deep, then put in *close* beside it and about an inch from one end one of the A wires; press this down till the hook engages over the top edge. Then do the same at the other end of this strip, taking care to place this second wire on the opposite side of the glass to that against which the first one is. Do likewise with each of the four strips of glass, and a rectangular box will have been formed quite close enough at the corners to keep off any damaging wind. All that now has to be done is to bend the remaining four wires, as B in the illustration, and to put two in an inch or so from one side of the glass box and similarly two in at the other side, and into these wire clips the piece of glass 10 inches by 10 inches can be sprung. If the soil or a small stone is then firmly pressed against the four wire supports, the glass roof will be quite safe during the stormiest weather. When this roof glass is in position, it can with a steady pressure be brought down until it is as much above the sides of the glass box as seems desirable to give sufficient ventilation, and yet not allow too much wind to enter. The size of the roof glass may be increased if the ventilation space is to be more than three-quarters of an inch, so that it may spread out far enough to keep out driving rain. It is well to let one end of this glass be lower than the other, so as to rapidly drain off all dirt and wet. If the height of the flowers necessitates wider strips of glass than 4 inches, it may, in exposed places, be advisable to put a turn or two of flower wire round the glass box when formed, as the extra size will offer more surface for the wind to act upon; but this has never been a necessity with me.

For plants like Androsaces and all those requiring a dry crown during winter, the roof glass and B wires answer admirably, provided the glass is sufficiently larger than the plant to intercept driving rain, and I would recommend that the sides be used only for *flowering* plants, the same to be removed as soon as the blossoms are over. I have used these roof glasses for several years, and have never yet had one dislodged by wind, while their construction permits a current of air to pass over the plants at all times and so lessens the liability to mildew. To remove the whole thing is the work of a moment, and if galvanised wire is employed, the supports last for several years. Another advantage is the compact way these glasses and wires can be stored during the summer, a hundred going safely into a small wooden case—a matter of no small moment to the average gardener who has little spare room. Of course, an occasional rub with a wet cloth or leather is advisable to keep the roof glasses clean, especially after fog. After experiencing the difficulties of a bell-glass partly raised, or the cumbersome and ugly hand-light, I feel sure that other gardeners will appreciate this simple form of protecting their especial treasures through our trying winters.

REGINALD A. MALBY.



A SIMPLE METHOD OF PROTECTING ALPINES FROM RAIN.

HOW TO KEEP FROST OUT OF FRAMES.

THERE are hundreds of amateur gardeners who are obliged to winter the majority of their bedding-out plants in cool frames and pits that are only slightly heated with hot-water pipes. In such instances it is absolutely necessary to make use of litter, straw, Fern, or sacks, and much depends upon the way in which the covering material is used. Dry litter will exclude more frost than that which is damp, and the same applies in the case of matting or sacks. Of course, while the coverings are in position they are sure to get well soaked in rainy weather, but the proper way to deal with them is to turn over the straw in the daytime once or twice when it has been taken off the glass lights, and so get it as dry as possible before the time comes for placing it on again. Mats and sacks must be suspended to rails or placed on fences; but the best way is to throw them over a line in the open air, and in wet weather over rails in a covered shed if one be available. The edges of the frames must be covered quite as deeply with the litter as the centre; in fact, it is advisable to place rather more on the extreme edges of the frame, as the cold, frosty air enters there. It is also best to allow the litter to project about a foot over the sides in the case of wooden frames. In cases where litter is scarce and frosts are severe, the cultivator should shake up the top portion of the covering material two or three times during the evening, the last shaking being given about midnight. It is really wonderful how much frost a covering so disturbed will keep out.

SHAMROCK.

CLEANLINESS IN THE GARDEN.

BOTH the young gardener and the beginner will make a most favourable impression on all who inspect their work if they practise cleanliness in regard to all details in connection with it. The present is a most favourable time for the young enthusiast to make a beginning; he will have ample time to put everything in order. There should be no litter or faded haulm of plants left lying about in the garden. All Potato haulm, that of Peas and Beans, weeds, especially coarse ones possessing long tap roots, and rank grasses must be burnt. Asparagus refuse must be gathered up carefully and reduced to ashes in an open fire. The ashes are very valuable, and ought to be returned to the borders in due course. Where, as is sometimes the case in town gardens, fires are not permitted in them, all rubbish collected should be placed in a heap and freely sprinkled with common salt sufficient to destroy insect pests. In due time mix some ordinary soil with the rubbish and turn over the heap, thus reducing all to a condition when it will be suitable for digging in as a manure. All such decayed and prepared rubbish must be dug

into the ground deeply in open quarters, and not in shallow borders.

The winter prunings of fruit trees must also be gathered up and reduced to ashes. All pots, both those that are empty and others containing plants, should be washed clean. Stages, on the top and underneath, must be kept clean, and all green surface soil removed from pot plants. The rafters and the glass of houses need cleansing. Old cutting-boxes must be painted inside with pure paraffin oil before they are used again. Old stakes need shortening, so as to get rid of the soil adhering to them and the decaying portion, prior to being placed as supports to new plants. Old soils, unless quite free from fungi and insects, should not be added to new. The foliage of hot-house plants needs sponging, and the branches of fruit trees gently scrubbing and dressing with insecticides. The potting-shed must be clean, and even the stokeholes. If all this very necessary work is attended to, less labour will be needed in getting rid of plant diseases and insect pests, the crops will be heavier, of higher quality, and the garden generally more interesting and enjoyable. B.

THE KITCHEN GARDEN.

FORCING EARLY CAULIFLOWERS.

THE spring of 1912 will, I fear, be none too plentifully supplied with choice vegetables, and though early Cauliflowers are not within everyone's reach, much can be done with ordinary frames to get good results. The autumn-sown plants are not a success in all gardens, though large growers have their own excellent methods of wintering and starting plants for early supplies; but what I write now applies to the smaller grower, who has to adopt various shifts to get an early supply. There are now fewer autumn plants raised in private gardens since the introduction of the small early Cauliflowers of the Snowdrop type, but we have at least half-a-dozen excellent forcing sorts. Some may vary little except in name, but this does not much affect the grower who gets a good early variety which is reliable. Years ago the Early London and Walcheren were largely sown for autumn supplies; but now the small, compact, early or forcing sorts can be grown in half the time and with fewer losses.

First Crop, a variety of dwarf habit and with few leaves, is an ideal forcer and of delicious quality; indeed, I may go further and state that there are few vegetables that are superior in May. Extra Early Forcing is also invaluable for sowing early in the year for a spring supply. The plant makes very dwarf growth, few leaves, and even when grown from seed sown in February may be had fit for table in May. Of new varieties, Forerunner is certainly a splendid acquisition, one of the earliest of the dwarf section, and has a close, pure white, compact curd. It is superior to the older Snowball in every respect. Forerunner, in addition, is a splendid frame Cauliflower; it can be grown in a small space, and with glass culture will give nice heads in less than three months. Defiance Forcing, an older variety, is valuable for sowing in frames in winter and planting out for an early supply. Earliest of All is excellent. I have referred to the older but useful Snowball; this is still much grown for early crops in the open in June. I have given half-a-dozen reliable forcers, which are quite enough to select from.

So much depends upon the grower's appliances for forcing in growing early Cauliflowers; but no matter how grown, to be successful there must be a rich rooting medium. Growth is made in such a short time that a starved plant will not be worth its room. Sowings made in January or February in pans, boxes, or a frame will give excellent results. For many years I made it a practice to sow on February 1 on a thick bed of leaves and litter in frames. Here were also sown Brussels Sprouts, Leeks, Lettuce, and Celery, and the result was that we had an ample supply of early vegetables and the later ones which required a long season's growth. For small quantities seed may be sown in shallow boxes in a warm house and then transferred to cold frames, and when large enough the seedlings may be pricked out in a generous soil in boxes and again given frame protection for a short time; or, if desired, they may be pricked out in a frame and lifted later on with a ball of soil to the open ground. So much depends upon the season as regards the date to plant; indeed, the grower in an adverse season will be somewhat handicapped, as, no matter what the variety is, shelter will be necessary. I have found a deep drill or shallow trench of great help at planting, as this affords protection and also facilitates watering. Great care should be taken that the seedlings, when being planted in the open, have their roots and balls of earth intact. Plant firmly, and as growth is made give small quantities of fertilisers in showery weather. If a few rows of plants can be covered with hand-glasses or cloches, the grower will find much less difficulty in securing an early crop. G. WYTHES.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

ZEPHYRANTHES AUREA.—When first exhibited on June 9, 1908, this unique species secured an award of merit by a unanimous vote, the same mark of unanimity now characterising its elevation to first-class certificate rank. The plants — for there were several—were now shown in a basket, and bore some eight of the glorious golden yellow flowers; and remembering that but two and a-half years have elapsed since the original plant was shown, and that the increase indicated has resulted from the solitary bulb first received in a little more than three years, our gardens have the promise of being permanently enriched by this fine addition. The original plant carried two fully-expanded flowers, the scapes being rather more than one foot high. Hence, apart from the intrinsic merit of the plant, there is also the promise of great freedom of growth and flowering and general amenability to cultivation in this country, attributes which render any plant of signal value to the cultivator. Our former good opinion of the plant is therefore confirmed and emphasised, and in a few years doubtless the new-comer will be seen in the choicest collections of plants. The species is a native of Peru, but was originally received by Sir Trevor Lawrence, Bart., from his son, who sent it home from West Africa as a great rarity.

Sophro-Cattleya Lotte Müller.—The outstanding feature of this Sophro-Cattleya is its glorious colouring. The petals are of a brilliant rosy carmine, the lip vivid crimson with gold markings. Although of good form, the flower is rather small. Parentage: Cattleya Petersii × Sophro-Cattleya Nydia. Shown by Messrs. Charlesworth and Co., Hayward's Heath, Sussex.

AWARDS OF MERIT.

Begonia Altrincham Pink.—A very charming and beautiful double-flowered variety of deep pink colour, the plant being of model growth and very compact. It may be likened to a refined Julius at the latter's best. Exhibited by Messrs. Clibrans, Hale, Cheshire. For illustration see page 607.

Begonia Glory of Cincinnati.—This is one of many hybrids raised from B. socotrana, and having in more decided form the peltate leaves of this plant than any we have seen. In colour and freedom of flowering it is a glorified Mrs. Bedford, than which we think no better tribute could be paid it. Exhibited by Mr. G. Lange, Hampton-on-Thames.

Carnation Bath's Premier.—The finest yellow-flowered Perpetual-flowering Carnation to date, and a worthy one at that. The flowers as shown were particularly fine. The variety, we are informed, has the Lawson blood in its veins, and there is certainly that ruggedness of petal outline that would suggest such a parentage. It is quite an acquisition, of which its raisers should feel not a little proud. From Messrs. R. H. Bath and Co., Limited, Wisbech.

Chrysanthemum Isabel Gray.—A single-flowered variety of terra-cotta shade, quite a good colour in decoration. From Mr. Philip Ladds, Swanley, Kent.

Chrysanthemum Mrs. David Syme.—One of the drooping Japanese type, of moderate size as shown, and of a singularly pure whiteness. The purity of colour is indeed remarkable, and will be welcomed even amid the almost overwhelming host of white-flowered Chrysanthemums in cultivation to-day. Exhibited by Messrs. William Wells and Co., Limited, Merstham, Surrey.

Trichopilia Gouldii. — An interesting Orchid hybrid with fragrant flowers. The perianth is almost covered with dull red spots on a white ground, with golden markings in the throat. Parentage: T. suavis × T. fragrans. Shown by Messrs. Charlesworth and Co.

Cypripedium Draco Westonbirt Variety. — Although innumerable Cypripediums were shown on this occasion, this was the only one to receive recognition. The flowers are massive and the dorsal very broad—more than two inches across—and spotted brown and pale purple. The sepals are bronzy green. Parentage: C. insigne Harefield Hall × C. Euryades. Shown by Lieutenant-Colonel Sir George Holford, Bart., Tetbury.

The foregoing were shown before the Royal Horticultural Society on December 5, when the awards were made.

BOOKS.

The Genus Rosa.*—The outcome of many years of observation, labour and study, this magnificent folio must take a higher place than any existing botanical work dealing with the Rose species. Hitherto the best of the Rose books have been those of Redouté, published in 1802, and John Lindley's "Rosarum Monographica," which appeared in 1820. But Redouté's beautiful drawings were of the then known garden flowers only, and in John Lindley's time many of the species now in botanic gardens and private collections were unknown to European botanists. Miss

* "The Genus Rosa," by Ellen Willmott, Drawings by Alfred Parsons, A.R.A. London: John Murray, 1910.

Willmott has throughout kept her own judgment much in reserve, preferring to collect and carefully verify the conclusions of other botanists. The collaboration of Mr. Alfred Parsons, who appears on the title-page as an Associate of the Royal Academy, but whom the world of fine art has since been glad to acclaim as of full academic rank, has supplied this monumental work with the Rose portraits that can best be described by Miss Willmott's own words applied to those of Redouté: "In delicacy of drawing, in excellence of colouring and in fidelity to nature, it surpasses any other flower-book. The drawings are portraits—at once precise and artistic." There is no need to remind lovers of flower and landscape beauty ot Mr. Parsons' sympathy with all that is finest in Nature. In these Rose pictures, painted for a definite botanical purpose, he has submitted his artist's hand, which, normally, would desire to be free, to the discipline of a hair-line edge to petal and foliage, the better to define the exact form; but it is treated with so much delicacy that there is no sense of intrusion or marring of the beauty of the drawings. The gratitude and admiration of all who are fortunate enough to possess or have access to this sumptuous book will go out to the author and artist. Mr. Murray may be cordially congratulated on his share in the production of this most important work.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

FLOWER GARDEN.

Lily of the Valley (*K. A. W.*).—March is certainly not a good time to move these Lilies, and if lifted at that season they may be weakened for some time to come. Your better plan in the circumstances would be to lift them now, any time within a month, and having shaken or washed all the soil from their roots, lay them in a bed of coal-ashes against a north wall. The lifting and clearing away of the soil will exercise a retarding influence on the plants, and a further disturbance of the whole lot a month prior to your removal will check any attempt at growth. By these means and replanting them as early as possible, not much harm should ensue. You have acted wisely in looking so far ahead; far too many of our correspondents wait until the eleventh hour, when we can do so little to help them.

Canterbury Bells (*G. L.*).—There must surely be in you a sense of the fitness of things, seeing that you reside in Canterbury, that you should desire to grow Canterbury Bells, and our regret is that we have to tell you it is now too late to sow seeds for producing exhibition plants for next year. The plants should be now of good size, the outcome of seeds sown in April last and duly transplanted. You may, of course, purchase plants quite cheaply, but for your purpose you require a good strain. You do not say whether you desire to exhibit them as cut flowers or as pot-grown plants. If the latter, you will need to select the more compact-habited plants—not the coarse-leaved or largest—as these are invariably of better quality. Doubtless a large number of plants are grown in your neighbourhood and some brought into the markets around. Lilium candidum, as a rule, flowers somewhat in advance of the Canterbury Bells, though much depends upon the age of the plants and the position in which they are grown.

THE GREENHOUSE.

Forcing Roman Hyacinths (*A. W. N. M.*).—You may keep the plants in the darkened conditions named until the spikes of flowers are fully grown and the earliest flowers on the spike—those lowest down—have begun to open. Hence a rather deep box is required. If, after thoroughly soaking the plants with water, you could cover them with a few inches of Cocoanut fibre, a more uniform degree of warmth would be assured and longer stems would result. Any Hyacinths or Tulips intended for very early forcing may be similarly treated, though only such Hyacinths as Grand Vedette and the old double Tour d'Auvergne respond to such early forcing. The best Tulips for the work are the Van Thols, La Reine (white), Yellow Prince, L'Unique and Vermilion Brilliant in the order named. This method of treatment is suitable for Lily of the Valley, but is quite unsuited to the Daffodil.

Daffodils in an unheated greenhouse (*W. B.*). Provided the plunging material is sufficiently deep, say, not less than 4 inches, the bulbs will be safe enough where they are till the end of January, or longer if you wish. The longer you leave them, however, the greater will be the top growth made; and in removing the pots from the plunging-bed some care will be required so as to avoid injury to the tops.

Expelling worms from pots of bulbs (*J. F. S.*).—Put two tablespoonfuls of mustard into a breakfast cup and, having rendered it into a thickish paste, mix with sufficient lukewarm water that your pots of bulbs will be just covered when plunged in a pail or other receptacle. Allow each affected pot to be submerged for a few minutes, when usually the worms will come to the surface or be killed within. Watering with lime or soot water or immersing the plants in the latter is also good, though lime is not so frequently at hand as is the mustard.

Camellia buds dropping (*R. J. A.*).—Any one of several reasons may account for your Camellia buds dropping. Too much or too little water would have a similar effect. Too little food would cause the buds to drop. Too many buds are also bad for the plant. We should advise you to thin the buds well, keep the plants moderately moist, but not wet, and give manure-water occasionally. We presume that there is nothing wrong with the drainage and that the soil is quite sweet. A maximum fire-heat temperature of 40° to 45° is quite sufficient for Camellias at any time, while it is better to reduce those temperatures 5° rather than place the plants in a warmer structure. The soil you describe is quite suitable.

FRUIT GARDEN.

Fertilisation of fruit blossom (*L. B. W.*).—Many Pears, Apples and Plums fail to set fruit with their own pollen. They must, in order to produce fruit at all, have pollen brought to their flowers either by wind or insects from another variety of the same kind. Experiments seem to show that the wind does not carry pollen far in the case of these trees, but that insects are far and away the most important agents in distributing it. Among them bees, both wild and hive bees, probably do the most work, but it is very desirable that observations upon the number of visits paid by different insects should be more extensively made in different parts of the country. In any case, the keeping of bees in or near a fruit plantation can do nothing but good. Comparatively few Apples and Pears will produce fruit at all without the aid of pollen from another variety. Of the former, Stirling Castle, Gladstone, Victoria and a few others may generally be relied upon; but even of those that are capable of producing fruit without cross-fertilisation, many seem to produce more fruit if crossing is possible. So far as we know at present, it does not matter much what variety of Apple produces the pollen, but the variety must, of course, flower at the same time as the fruit-bearing one. Such Apples as Cox's Orange, probably Blenheim Orange, Allen's Everlasting and so on appear to require foreign pollen, but the list is so long that it would be out of place to give it *in extenso*. The same is true of Pears; a few, like Durondeau and Conference, and probably General Todtleben, will set fruit without foreign pollen, but most of them require pollen from other varieties. So with many Plums. Victoria and others of the same type set fruit freely without foreign pollen, but it is a safe rule when planting fruit trees to intermix varieties flowering at the same time, Apples with Apples, Pears with Pears and Plums with Plums, and to encourage by every means in one's power the visits of insects to the trees during the flowering-time.

Old Nut trees (*C. B. S.*).—It seems a pity and a loss to cut the old trees down after they have attained such a size. It will be better, we think, to prune them rather severely and give them another chance. Nut trees will stand hard pruning with advantage better than most fruit trees. In starting to prune you must first bear in mind that the crop of Nuts the trees should bear next year is borne on shoots the growth of this year, and therefore enough of these young shoots must be left to produce a crop. Each of these shoots (of this year's growth) should be slightly shortened by having a few inches of the top cut off. Any small side shoots (laterals) which may grow out of these shoots should be cut back to within four buds of their base. Useless branches should be cut out bodily, in order to let abundance of light and air among the young shoots in summer, so that they will be developed and ripened and prepared to carry a good crop the following year.

MISCELLANEOUS.

Soil for inspection (*H. B.*).—It is very poor soil, both the No. 1 and the No. 2 samples. We should certainly advise you to blend the two together and add well-rotted manure liberally. If you can possibly obtain some turfy loam from a meadow, it would repay you for the expense of procuring it, and, should you be successful, add this to the other soil, placing any grassy parts well beneath the surface.

Cydonia fruits (*E. J. L.*).—Your plant of Cydonia (Pyrus) japonica is known under the common name of Japanese Quince. The fruit may be used for jelly in the same way as that of the common Quince (Cydonia vulgaris). Directions given for the preparation of common Quince jelly or Quince marmalade may be followed in this case. Jelly from this source is not considered to be so finely flavoured as that made from the fruit of an allied Japanese species, C. Maulei.

To dry ornamental Gourds (*Adel*).—If the Gourds have been grown on a pergola or in an open position where they get plenty of light and air, and have been left on the plant till well ripened, they should keep quite well for decorative purposes without much or any further treatment or preparation. If when cut or gathered they are not quite hard, they should be placed in a dry room where there is no likelihood of their becoming damp. Here the skin should get quite dry and hard, and they may then be placed where they are required. Any dry room with a fire in it, or where a current of air passes through, should do all that is required to make them keep well.

A new disease (*Mercury*).—The Azalea is attacked by a practically new disease in this country, due to the fungus Exobasidium japonicum. The galls should be picked off and burned as soon as seen. A similar disease is common in the Alps on Rhododendron ferrugineum. The Freesias appear to have failed to form sufficient roots before the leaf-growth occurred. Possibly they have been kept too warm and leaf-growth encouraged too much, or they may be suffering from the presence of manure in the soil; one of the roots has that appearance. Keep the plants cool and give as much air as possible during their growth, bringing them into a warmer situation only when the roots are well developed.

Various queries (*Q.*).—1. The fungus on the Sycamore and that on the Rose are regarded as two distinct kinds. Still, for safety's sake we should advise you to collect up the Sycamore leaves as they fall and burn them at once. The Rose leaves, too, should be treated in the same way. Next year, directly the disease appears on the Roses they should be syringed with a solution of potassium sulphide. 2. We do not know of anything that can be sprinkled on the plants named to make them distasteful to rabbits, and the probability is that if there was such a thing it would be sufficiently powerful to injure the plants. 3. Plants of Begonia Gloire de Lorraine have the shoots pinched back during their earlier stages in order to acquire a bushy habit of growth. It is not usual to pinch back Schizanthus; but if the plants are running up thin, it should certainly be done in order to lay the foundation of bushy specimens. A good deal depends upon the treatment they have received. Some cultivators put three plants in a pot in order to obtain very large specimens.

Names of plants.—*G. W. H. T., Sutton.*—1, Dryas octopetala; 2, Linaria species; 3, Sedum Lydium; 4, Paronychia capitata.——*Italia.*—The petals had fallen from the Roses when they reached us, but we believe the pink one is Souvenir de Victor Hugo, and the white one Mme. Alfred Carrière.

SOCIETIES.

PERPETUAL FLOWERING CARNATION SOCIETY.

THE eleventh show of the above society was held at the Royal Botanic Gardens on Tuesday and Wednesday, December 5 and 6. The exhibition was by far the finest in quality yet held by the society, the excellent blooms staged by Mr. W. E. Wallace, Eaton Bray, being marvels of perfection in both size, form and colour. There was a fair attendance on both days.

OPEN CLASSES.

For the best group of cut Carnations, Mr. W. E. Wallace obtained the society's gold medal with a splendid collection, including May Day, White Perfection, Carola, Beacon, Rose Pink Enchantress, Britannia, Enchantress, Gloriosa, Scarlet Glow, Delight, Winsor and White Wonder. He was closely followed by Messrs. Allwood Brothers, Wivelsfield Nurseries, who staged a splendid stand of the new variety Wivelsfield Wonder and several other seedlings; and for a light and artistic effect Messrs. Young and Co, Cheltenham, were third.

Mr. Bertie E. Bell, Guernsey, was winner of the Brunton Challenge Cup with three British novelties distributed since January 1, 1909, the varieties staged being Coronation, Judith and Constance.

For a similar set of American novelties, Mr. W. E. Wallace took the American Challenge Cup with Gloriosa, May Day and Scarlet Glow, Mr. B. E. Bell coming second and Messrs W. Wells and Co. third.

For two varieties of market Carnations, sixty blooms of each, to be shown in two vases of thirty-six, and two of twenty-four, packed for market, the Covent Garden Challenge Cup and silver-gilt medal were won by Mr. W. E. Wallace with Dorothy Gordon and White Wonder. Mrs. D. M. Collins of Swanley and Mr. Philip Ladds were next in order of merit.

For twenty-five blooms, Mr. W. E. Wallace secured first and special prize with a handsome vase of Enchantress, Mrs. D. M. Collins coming second and Mr. A. F. Dutton third.

For twenty-five blooms of May Day, Mr. Wallace again led, and was followed by Mr. B. E. Bell and Mr. A. F. Dutton respectively.

For twenty-five blooms of Rose Pink Enchantress or similar colours, Mr. Wallace was first; second, Mr. Bell, with Coronation; third, Mr. G. Lange, Hampton.

Mr. Bell took first for a vase of Mrs. C. W. Ward, and was followed by Mr. Wallace.

For twenty-five blooms of white, Mrs. D. M. Collins secured the leading place with White Perfection; second, Mr. Wallace; third, Mr. W. H. Page.

For a similar number of any scarlet variety, Mr. Wallace led with Scarlet Glow. Mr. B. E. Bell followed with Britannia and Mr. A. F. Dutton with Beacon.

For twenty-five blooms of any fancy, Mr. H. Burnett, Guernsey, secured first with a brightly-coloured variety, Mandarin, yellowish ground, edged scarlet; and Sir Randolf L. Baker, Bart., M.P., Blandford (gardener, Mr. A. E. Usher), followed with Imperial.

A special prize for twelve blooms of any registered variety not in commerce was secured by Mr. Wallace with his new seedling Una, of a bright cerise shade, which also gained an award of merit. Mr. Bell was second with Coronation, a brilliant rose pink (award of merit); third, Messrs. W. Wells and Co., with Merstham Beauty.

For a vase of thirty-six blooms, arranged for decorative effect, the Felton Plate was secured by Mr. Wallace.

The decorative trade classes were won chiefly by Messrs. R F. Felton and Sons, Hanover Square.

Mrs. A. R. Bide, Farnham, secured first prize in the open class for table decorations; and Sir Randolf L. Baker was first for amateurs.

OPEN TO AMATEURS AND GENTLEMEN'S GARDENERS.

A very handsome group of plants in bloom was staged by Mrs. Bischoffsheim, Warren House, Stanmore (grower, Mr. J. H. Bruce), which secured the handsome silver-gilt challenge cup; second, Lord Furness, Grantley Hall, Ripon (gardener, Mr. R. Barnett).

Sir Randolf Baker took the silver-gilt medal for a nicely-arranged table of cut Carnations. The Bush Hill Challenge Cup was also secured by Sir Randolf Baker, who took the Burnett Cup and the Engelmann Novelty Cup for six plants in bloom.

Lord Hillingdon, Hillingdon Court, Uxbridge (gardener, Mr. A. R. Allan), and Lord Burnham, Hall Barn, Beaconsfield (gardener, Mr. G. Johnson), were among the prize-winners in the amateur section.

Mr. G. H. Lawrence, Godstone, Surrey, was prominent as a prize-winner in the section of amateurs who employ a part-time gardener or who cultivate their Carnations unaided.

In the new county section for amateurs not showing in other classes where blooms are staged by the society, Mr. P. M. Patterson, St Anne's-on-Sea, was the only prize-winner.

TRADE AWARDS.

Mr. C. Engelmann, Saffron Walden, showed a very handsome collection of all the leading varieties, including several new seedlings. Large gold medal.

Messrs. Stuart Low also staged a similar collection Gold medal.

Mr. G. Lange, Hampton, showed Carnations. Silver-gilt medal.

The Newport Carnation Nurseries, Essex, showed a group of Carnation Lady Meyer. Silver medal.

FIRST-CLASS CERTIFICATE

American-raised variety: White Wonder.

AWARDS OF MERIT.

American-raised variety: Gloriosa.

British-raised varieties: Triumph, Old Crimson Clove colour, raised by Mr. C. Engelmann and exhibited by Mr. G. Clark, Leighton Buzzard; Una, bright cerise, raised by Mr. W. E. Wallace; Coronation, rose pink, raised by Mr. B. E. Bell, Guernsey; and Geisha, Orleans Plum tint, a unique colour, raised by Messrs. Fairbairn and Sons, Carlisle.

ANNUAL MEETING AND DINNER.

The annual dinner was held at Anderton's Hotel, and for the first time ladies were present, which formed a distinct innovation and a successful one. The chair was taken by Mr. J. S. Brunton, and several prominent members of the society were present. The annual meeting followed, at which the annual report and balance-sheet for 1911 were read and adopted. It was with regret that Mr Hayward Mathias found it necessary to resign the joint hon. secretaryship he had held during the past two years, having previously been secretary of the society since its formation and done excellent work. As an appreciation of these services the committee unanimously elected him a vice-president. The following officers were re-elected: Lord Howard de Walden, president; vice-presidents as previously, the general committee being given power to add to their number; Mr. W. E. Wallace, vice-chairman; Mr. L. J. Cook, hon. treasurer; and Mr. E. F. Hawes, who has been joint hon. secretary with Mr. Mathias for the past two years and show superintendent since the formation of the society, as hon. secretary and show superintendent.

NATIONAL CHRYSANTHEMUM SOCIETY'S CONFERENCE.

THE Charles Dickens Room at Carr's Restaurant, Strand, London, W.C., was crowded on Monday evening, December 4, in connection with a conference held under the auspices of the National Chrysanthemum Society. The meeting commenced at six o'clock, Mr. Thomas Bevan, in the unavoidable absence of Sir Albert K. Rollit, LL.D., D.C.L., presiding. Great enthusiasm characterised the meeting, many well-known and popular Chrysanthemum experts being present.

The first of the two papers that were read was by Mr. Frank Ladds of Swanley Junction, Kent, who is responsible for the management of the several extensive market nurseries of Mr. Philip Ladds. The paper dealt with the cultivation and general treatment of market Chrysanthemums, and as the author's firm is one of the largest cultivators of the subject under notice, it is easy to understand that his remarks were listened to with more than ordinary interest. He said great care was observed in the selection of stock plants. The best plants were marked, and any that were subject to disease, &c., were avoided. Details as to the treatment of stock plants were given, so as to make the most of them and to perpetuate healthy stocks. Many plants were shaken out and planted under glass, and plants in pots were top-dressed. As to the taking of cuttings, this was gone into fully, and the method of propagation of plants grown in a wholesale manner was laid down very clearly. One of their methods of propagation was to fix pieces of batten on edge, and to make up shallow beds of soil therein and to dibble the cuttings in 1 inch deep. Mr. Ladds emphasised the importance of not allowing the cuttings to flag at any time, and urged growers to see that a longer interval than two hours should never elapse between the detaching of the cutting and its insertion in the cutting-bed. He said the less they flag the better the cuttings strike. As soon as the roots are about an inch long, the cuttings should be potted up, two to four in a pot, according to the variety. Final potting should take place from May 7 onwards, and this work should be finished by the end of June, preferably by the 24th of that month. Mr. Ladds set great value on bones in the potting compost, and said ground bones were best—bones ground into a flour. He also advocated the addition of 1 per cent. of soot. Regarding the stopping of the plants, much depended on their condition. The lecturer was understood to say that the plants should be stopped once after they were in their flowering pots. As to the number of plants to grow in a pot finally, a few instances were given, such as Framfield Pink, four in a 8½-inch pot; Tuxedo, four in a 9½-inch; Thompson and its sports, two in a 8½-inch; W. J. Crossley, one plant in an 8½-inch; and so on. Adverting to the question of stopping the plants, Mr. Ladds told his hearers to stop plants of the respective varieties on three different dates at intervals of a week, and in this way place themselves in a position to cut the flowers over a period of three weeks. Disbudding should begin so soon as the buds are large enough to handle, and commence to feed the plants as soon as the disbudding is finished. Treatment of the plants under glass, with especial reference to ventilation, was considered, and many other points of interest were listened to with rapt attention. An excellent discussion followed, Messrs. Norman Davis, T. Stevenson, D. B. Crane and W. J. Godfrey each taking up points of importance. One speaker urged the necessity for giving greater attention to other types of the Chrysanthemum; large exhibition blooms as opposed to the smaller sorts were advocated by another. The advance and development of the single-flowered sorts was also called attention to. It was quite evident that market-growers will not have the single Chrysanthemums that have but one or two rows of petals. Four to five rows of florets are not considered too many, as the flowers travel better and also last much longer. The lecturer, in replying to the various speakers from time to time, gave some very practical hints. A spraying of a weak solution of Tobacco water at regular intervals during the season was a certain preventive of the leaf-mining maggot; an application of green sulphur for mildew, and liver of sulphur for rust, dissolving a piece of the size of a Walnut in a gallon of water and spraying the affected plants with this solution. Mr. Ladds said their plants at Swanley had never been affected with rust, and this he attributed to their plants being at the top of a railway bank and the sulphurous fumes of passing engines keeping them free from this fungoid disease. The cutting and packing of blooms was dealt with, and their grading also. After cutting, the blooms should be stood up to their necks in water for two hours before packing. Lifted Chrysanthemums also received attention. Framfield Pink was regarded as an ideal Chrysanthemum for market, and colour was a great consideration.

Mr. Percy Cragg, the senior partner of the firm of Messrs. Cragg, Harrison and Cragg of Heston, Hounslow, next gave his paper on the preparation of soils for growing Chrysanthemums. This proved to be a most interesting and valuable paper. It dealt with the subject in a distinctly scientific manner, and to do the reader of the paper justice should be read *verbatim*. The paper was brimful of invaluable hints to those who want to make the most of their soils. Mr. Cragg strongly recommended those who wished to succeed to procure competent advice, as he said they must know the character of the soil they had to deal with and its chemical constituents. A capital discussion ensued, several market-growers and others entering heartily into the matter.

A vote of thanks was proposed to the readers of the papers, and this was carried with acclamation, as was a vote of thanks to Messrs. Cragg, Harrison and Cragg for a large and comprehensive collection of market Chrysanthemums set up artistically in vases. The flowers were splendid examples of cultural skill, and proved most conclusively that the method of culture observed by these well-known growers was most successful.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of this association was held at 5, St. Andrew Square, Edinburgh, on the evening of December 5. There was a large attendance, presided over by Mr. W. H. Massie of Messrs. Dicksons and Co., Edinburgh, the president of the association. The exhibits were considerable in number and made a good display. The Edinburgh Distress Committee sent a collection of Chrysanthemums from their farm at Murieston, where Mr. Cairns, the committee's superintendent, grows them well. Mr. J. Bruce, Davidson's Mains, exhibited Chrysanthemum Felton's Favourite, of excellent character. From Mrs. D. M'Lean, Raith, Kirkcaldy, came some new single Chrysanthemums of considerable beauty. Mr. W. G. Pirie, gardener to Mr. C. W. Cowan, Dalhousie Castle, sent four new single Chrysanthemums, which were considered of such quality that a first-class certificate was given for Miss Callendar, a very beautiful one of cream colour; and certificates of merit were awarded for Mrs. G. F. Eyre and Miss E. L. Cowan. The other, Mrs. R. C. Cowan, was also a pretty variety.

For the ensuing election of office-bearers of the association, Captain Stirling of Keir was nominated as honorary president in place of Sir John Gilmour, Bart., of Montrave, and Mr. W. H. Massie was nominated for re-election as president. A satisfactory report of the finances of the recent Chrysanthemum show was made by the convener of the finance committee, Mr. D. King. It showed a credit balance of about twenty-five pounds, more or less. An excellent lecture on "Insects and Flower Pollination," illustrated with lantern slides, was given by Mr. T. Anderson, M.A., B.Sc., of the Edinburgh and East of Scotland College of Agriculture. It was of an exceedingly interesting and useful character, and the audience received it with much acceptance.

BOURNEMOUTH GARDENERS' ASSOCIATION.

AT the recent meeting of members, Messrs. H. G. Cox and F. Townsend of Messrs. Sutton and Sons, Reading, gave a splendid lecture (illustrated with lantern slides) on "Annuals Suitable for Growing in Pots for Greenhouse Decoration." There was a beautiful exhibition of Orchids and other kinds of flowers at the society's rooms. G. H. Rolls, Esq., filled nearly one side of the room with Cattleyas, Cypripediums and Carnations, about one hundred and fifty pots and pans of Orchids being staged, lightly arranged with feathery Palms and Grasses. Mr. Welch of the Park Nurseries had a long group of Begonias, Coleuses, Palms, Dracænas, Crotons and Ferns, very tastefully arranged. Mr. C. Nippard, gardener to J. J. Norton, Esq., Ashley Court Gardens, exhibited a very interesting collection of plants, including Turnford Hall and Rothschild varieties of Gloire de Lorraine Begonias, and Begonias Patrie and The Gem, new winter-flowering varieties, very charming. Of Zonal Pelargoniums he had Gertrude Pearson, Mary Hamilton, Dryden, Andrew Laing, Chartoni, Lady Sarah Wilson and King of Denmark.

Mr. Townsend's lecture on the annuals suitable for pot culture was a most instructive one. He advocated the sowing of the seeds in boxes instead of pots in spring, and said thin sowing was essential to success, and it could be better carried out in roomy boxes than in pots. He gave a long list of suitable kinds and varieties, and was heartily thanked at the close of the lecture, as also was Mr. Cox, who manipulated the lantern. All the coloured pictures, taken by the new process from Nature, were charming, and conveyed at a glance the suitability of the various subjects for greenhouse and conservatory decoration.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

DAFFODILS IN LONDON NEXT YEAR.

ALTHOUGH it has been known for some time that the Royal Horticultural Society had decided to hold a Daffodil show in the spring of 1912, it was only in November last that its schedule was published. I have carefully looked it over, and in it, as is natural, I find good points and bad points. Speaking in very general terms, it gives me the impression of having been rushed, and the mutual interdependence of its parts not sufficiently thought out. It is here that its weakness lies. Before, however, I pass on to details, let me give a rough idea of its main features.

The schedule is divided into four sections, and the amended classification for 1910 has been strictly followed. Section 1 is open to all, traders or amateurs. Any Daffodils may be shown, whether in commerce or not. There are nine classes, of which the chief is one for forty-eight varieties, "fairly representing the different divisions" of the classification of 1910. Then come twelve long trumpets, twelve incomparabilis, twelve Barrii and twelve Leedsii, then nine Poeticus, then nine selected from Divisions 5, 6 and 7, viz., triandrus, cyclamineus and Jonquilla hybrids; then nine Polyanthus or Tazettas, and, lastly, six doubles. Section 2 is confined to amateurs, and the classes which compose it are the same as in "one," only fewer varieties are requisite; and instead of triandrus, cyclamineus and Jonquilla hybrids being admitted in Class 16, triandrus hybrids only are allowed. Throughout the section any Daffodils may be shown, whether in commerce or not. Section 3 is also limited to amateurs, but the number of varieties in each class is less than in Section 2, three being the rule here.

For the first time in a schedule the sub-divisions of the classification are made use of. This is a step in the right direction; but as any Daffodils of any price, either in commerce or not, may be staged, I am, on mature consideration, very doubtful about its benefits to the smaller growers, for whom, I take it, this section has been framed. So important do I consider it that even at this eleventh hour I would beg those in authority to have it amended. It is vitally necessary, if it is wished to encourage smaller growers and beginners, to strictly confine this section to *varieties in commerce*, and, furthermore, to put *some limit on the price of the flowers* which may be shown. I know the intention of the framers was of the best; but I think I am right in saying that schedules, like Acts of Parliament, must be judged by what they say, and not by what it was intended that they should say. I hope for the best, and if no amendment is possible now, I appeal to big amateurs to confine themselves to Section 2, and to leave Section 3 for the lesser men. At the same time, I must admit there is nothing whatever to prevent them choosing either Section 2 or 3 as it suits them best.

As it stands, the schedule is a "big man's schedule." Section 4 is entirely given up to seedlings and new varieties, and the expressions "introduced into commerce" and "not in commerce" are used. I have looked in vain for any definition of the term "commerce." It is a serious omission, and likely to lead to endless disputes. Why should not the definition of the Midland Society be adopted? It has worked well and stood the test of time. It is as follows: "For the purposes of the Midland Daffodil Show, the expression 'being in commerce' means being offered for sale in a *retail* price list of the autumn prior to the show in which the flower is exhibited." I feel a little sorry that the single-bloom classes, 38 to 45, are confined to varieties "not in commerce." I have always understood that the object of such was to get at the best bloom of its type, whether new or old. However, the proof of the pudding has told me that this is by no means always the case, and it is possible that this limitation may have excellent results. Certainly it is *the* novelty of the whole schedule, and is well worth a trial.

Harking back to Section 2, undoubtedly flowers should be confined to those in commerce. If there is any price stipulation, the value of the bulbs eligible might be fairly high, say, two or three guineas. There are other points that I feel sure will be all the better for some alteration or amendment another year. I will content myself with mentioning just one. In the introductory remarks it is said, "All varieties, except new seedlings, must be legibly and correctly named." Without any qualification, a judge will have no option but to disqualify any competitor

who misnames any flower. The mature wisdom of years has (I think I am right in saying) decreed otherwise, and regards the accuracy of the naming as a *bene esse* not an *esse*. Take it into consideration, by all means, and drop on wrong names, but do not go to the length of disqualifying.

I have had my growl—the growl of an old stager with probably as wide an experience of Daffodil shows as anyone. The growl is worse than the bite. Failing my ideal—a National Daffodil Society, with two shows, one in London and one at Birmingham or elsewhere, with meetings and discussions, with a literature of its own—I heartily welcome this departure of the Royal Horticultural Society, and I am deeply grateful to those who have given their time to framing the schedule, and especially to that good, broad-backed man, Mr. Walter T. Ware, who is the predominant partner of the trio who have made themselves responsible for the money part of the show. I have only one wish, and that is to have the best schedule that Daffodil ingenuity can provide.

JOSEPH JACOB.

By the kindness and courtesy of Mr. Jacob, I have been allowed to see the MS. of the foregoing article. I think his criticisms very just; but as he has only seen the first proof of the schedule, I hope, when the amended form of it is issued, he will be able to bestow less faint praise upon it. E. A. BOWLES.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 27.—Irish Gardeners' Association and Benevolent Society's Meeting.

December 28.—Société Nationale d'Horticulture de France (Paris) General Meeting.

National Rose Society.—On another page of this issue will be found a report of the proceedings at the annual general meeting of the National Rose Society. This meeting was held at the Westminster Palace Hotel on December 14. A deep sense of regret was felt by all members present owing to the absence through illness of Mr. Edward Mawley, the esteemed and hard-working hon. secretary. Before the meeting was brought to a close, the following telegram was sent to Mr. Mawley by the Rev. J. H. Pemberton, president of the society: "Members of the National Rose Society greatly regret your first absence from annual meeting for thirty-five years; send hearty greetings and best wishes for your early and complete restoration to health." This, we feel sure, is a wish that will be echoed by all our readers who are fortunate enough to know Mr. Mawley.

Prevalence of the Large Cabbage White Butterfly.—In his second report on "Economic Biology," just published by The Midland Educational Company, Limited, Birmingham, Mr. Walter E. Collinge refers to the increasing prevalence of this troublesome pest, and mentions that in many districts prizes have been offered and awarded to school children for the greatest number of dead specimens. In one instance the premier prize was awarded to a box containing 2,974 butterflies. Considering the vast amount of damage done yearly by this pest, and the difficulties encountered in combating it, this method of waging war against the mature insect seems to us worthy of extension. Unfortunately, the crops in small gardens, where the owners can least afford the loss, are usually the most damaged.

Christmas Roses at Kew.—The Christmas Roses planted about the outskirts of the wild garden between the rock garden and the Palm-house at Kew present one of the most attractive features of the gardens for six or eight weeks in midwinter, and they form a good object-lesson for those who are desirous of taking up the culture of the plant. Grouped irregularly with hardy Ferns, the white flowers are set off by the brown Fern fronds, and the effect is a great deal better than when these plants are grown alone in a formal bed. Given partial shade and moderately good and moist soil, the Christmas Rose (Helleborus niger) thrives well and quickly forms good-sized clumps. It, however, is rather impatient of root disturbance, and clumps which have been divided sometimes fail to produce their best form again for a couple of years. When the flowers of the Christmas Rose are required for cutting, it is a good plan to cultivate a number of plants solely for that purpose. When this is done, a rough frame can be erected about the time the buds appear, and lights can be used to shelter the flowers from bad weather and to keep them clean. As a rule, small plants can be obtained at a cheap rate; therefore it is within everyone's reach.

Planting at the foot of house walls. A house, especially a well-designed house, is such a solid and important thing that it is a matter for regret that the planting immediately at its foot should be often so wholly inadequate. Lines of Wallflowers, Stocks and other "soft goods" are scarcely suitable accompaniments for masonry, whereas there is a quantity of useful material only waiting to be intelligently employed. Another thing that is commonly overlooked is that it is not necessary in planning a border close to a house that has projecting bays to carry the border in and out, exactly following the lines of the block-plan of the house. It is much better to let the line of the border run straight from end to end, even if it only encloses the bays by 1 foot or 18 inches. The larger recesses will then give spaces for planting with more important shrubs, while the narrow space will suffice for such as Pyrus japonica or a Cotoneaster, quite enough to clothe the wall under a window. The best plants for this purpose are low shrubs, such as Rosemary, Lavender, and the Olearias Haastii and Gunnii on the sunny side, with a lesser accompaniment of Santolina, Stachys and common white Pink; while to give additional interest and charming colour to the whole, some bushes of China Rose may well be added. Then, for cooler exposures there are Skimmias, Pernettyas, the dwarf Rhododendrons and Andromedas, with hardy Ferns, and for larger spaces Laurustinus and Box. The large-leaved Megaseas, for filling and front spaces, cannot be beaten as suitable accompaniments to masonry, and are especially good at the foot of steps. The plants named, which do not include climbers, with one or two exceptions only, are evergreen, so that the house foot is well clothed at all times of the year. The number of kinds of plants could be added to, but enough are suggested to illustrate the idea.—G. JEKYLL.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Coloured Primroses under Beech trees.—At our old place, Windfield, County Galway, my stepson's property, from the house to the lodge gate is a quarter-mile strip covered with Beech trees 200 to 300 years old. Under the trees were masses of Primroses. Their different colours surprised me—there were quite eight: white, yellow, pink, terra-cotta, black, two shades of purple, and lavender. Of the black and lavender there were only two or three roots. I write to ask if any reader can say what gave them the different colours. Would it be the manure of the Beech tree leaves?—W. PUGIN THORNTON, *Castle Bellingham, County Louth.*

Narcissus triandrus pulchellus.—The illustratfon of N. triandrus pulchellus and the notes by Mr. Watson in your issue for December 16 recall to me the fact that in the days of my youth I had an inspiration similar to his, and evolved in my mind's eye a new race of Narcissi with the perianths of deeper colour than the crown; alas! I never obtained any results worth recording. From triandrus pulchellus I could never get any seed, and the amount of pollen it produces is so small that this will probably account for my want of success with it as a pollen parent. In any case, it is in itself a charming and dainty little thing, a hybrid, some say, between either triandrus and Jonquilla, or triandrus and odorus. A small trumpet Daffodil was raised and exhibited some years ago by Mrs. R. O. Backhouse—Turncoat was, I believe, the name—in which the trumpet was of paler colour than the perianth, but I was assured that triandrus pulchellus had nothing whatever to do with its origin. I do not think there is much in Mr. Watson's contention that triandrus blood gives a tendency to white or white-edged coronas; in a considerable number of the trumpet Daffodils raised by the Rev. G. P. Haydon this peculiarity may be noticed; in these I can vouch that there is no triandrus blood.—F. HERBERT CHAPMAN, *Rye.*

Gold medal awards to Roses.—Your correspondent "A. D." is perplexed because he apparently attributes to the gold medal award a value which it does not possess.—JOSEPH H. PEMBERTON.

—— From the correspondence on this subject, I gather the gold medal is awarded in a very unsatisfactory way. I agree with the Rev. J. H. Pemberton that it is awarded to the best Rose on the show-table, but that does not mean that it is awarded because the Rose is in every detail qualified for it. These exhibits are specially prepared for the keen eyes of the National Rose Society, and the judges are men who undoubtedly know a good Rose when they see one under these conditions. I quite agree with "R. C." and "A. D." that if the object of the society is to award medals to the best new Rose, they ought to visit the nursery and see the habit of the plant. We want Roses which are mildew-proof, and strong, sturdy growers without coarseness. We want more distinct ones; at present there are too many too much alike. The National Rose Society aim at fostering and increasing the love of Rose-growing among the public, but if the council are not prepared to adopt practical methods, then they are theorists only.—WILLIAM KITLEY.

The Royal Horticultural Society's Daffodil Show. — I have just received a copy of the schedule of classes and prizes arranged for the show to be held at Vincent Square on April 16 and 17 next. After all the talk there has been about encouraging the small grower, I must say I am disappointed. It is true that there are several sections for amateurs, and that an exhibitor in one may not exhibit in the other. But an "amateur," according to the Royal Horticultural Society's definition, is a person who maintains a garden with a view to his own use or enjoyment, and not for the purpose of making a profit or gaining a livelihood. This means in effect that a small grower like myself, who only employs occasional help, may have to compete against those who can afford to employ a large staff of gardeners. As this is the first show of its kind, one can forgive this apparent oversight; but if the society really wishes to encourage the small grower, this definition of amateur must, for this purpose at least, be considerably modified. —SMALL GROWER.

A true yellow Perpetual-flowering Carnation.—An interesting exhibit at a recent meeting of the Royal Horticultural Society was a vase of a yellow Perpetual-flowering Carnation, aptly named Bath's Premier. It was exhibited by Messrs. Bath, Limited, of Wisbech, and deservedly received an award of merit from the floral committee. Mr. Leak, the genial manager, was kind enough to give me its parentage. The most interesting and outstanding feature about this flower is that its great-grandmother is the celebrated Mrs. T. W. Lawson. This was originally crossed with Miss Audrey Campbell, one of the earliest yellows which the late Mr. Martin Smith obtained with Germania. Among the resultant seedlings was a yellow with a pink stripe. This was again crossed with Mrs. Lawson, and in the second generation threw a good single yellow; then this was pollinated with the above yellow and pink. It was this union that gave Bath's Premier. The plant is a true Tree variety, with a splendid constitution, very free, a good winter bloomer and a non-burster. The flower, unfortunately, has no scent, but it is of good size and a real yellow, like its ancestor Germania, just the colour we have been so long waiting for.—JOSEPH JACOB.

Early and late Apples.—It is interesting to note that when collections of well-kept Apples are exhibited in December at the Royal Horticultural Society's meetings, they seem to get no higher awards than are given to collections of early, and therefore non-enduring, Apples in September or October. Possibly the early-exhibited fruits may show greater size than December-staged fruits; but when, as is more commonly the case, the higher awards are made to early varieties rather than to late keepers, it would seem as if early varieties were held to be of greater value. That from a purely commercial aspect such may be the case is possible, as when fruits of good size can be gathered direct into the baskets and at once hurried off to market, it is easy to understand that such give the best, because the quickest, returns. But it would be imagined that just in proportion as Apples kept sound and fresh well into the winter, so would they have enhanced value. To my mind, such a collection of nearly one hundred varieties of very fine, clean fruits as was exhibited at Vincent Square on the 5th inst. merited a higher award than would be given to one of equal, or even of greater, extent staged there some eight or nine weeks earlier.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANT-HOUSES.

CARNATIONS.—The first batch of cuttings of the Perpetual-flowering Carnations should be put in now, as by so doing the cuttings will not be so drawn and weak as if left on the plants for several weeks longer. These early-struck cuttings will, in all probability, supply flowers in advance of those which are put in later. The cuttings may either be rooted singly in 2½-inch pots or be dibbled thickly into a bed of sand, under which there is just sufficient heat to excite root action. The cuttings must not be induced to make any growth till they are rooted. An ideal place in which to propagate these cuttings is to erect a temporary frame on the stage at the lightest end of the house in which the old plants are now growing.

Cyclamen.—The plants which are flowering may, with close attention, be induced to continue flowering for some time to come. Keep them well supplied with moisture at the roots and afford them stimulants two or three times a week. These plants are extremely useful for house decoration, but they should not be left too long in close rooms; they must also be shaded from bright sunshine. The young plants which were raised in the autumn may be potted into 2½-inch pots and placed on a shelf near to the glass in a temperature which should not fall below 60°. Pot them in a nice light compost, keeping the corms near to the surface of the soil. It is good for the plants if the shelf is well covered with fine ashes or sand to hold moisture, as they appreciate a moist atmosphere.

Calanthes. — When the varieties Veitchii, Harrissii and others of the early section have been relieved of their flower-spikes, the pots should be packed closely together in a dry position in a temperature of about 45° or 50°. It is not good practice to shake the roots out till a week or two previous to the potting-time. The variety sanderiana is just now opening its flowers, and will require all the light possible and a dry atmosphere. The present season has so far been wonderfully free from black fogs, and in consequence the flowers have kept their colour well. Should there yet be a visitation of these fogs, the roofs of all houses containing flowering plants should be immediately washed.

Lily of the Valley.—There is no difficulty in keeping up a continual supply of Lily of the Valley by means of retarded crowns; but for the next few months the ordinary crowns may be forced quite well in the forcing pit. Pot up the crowns, about nine or ten, in a 5-inch pot as soon as they arrive, and place them in a cool house till they are required for forcing. Home-grown crowns may easily be forced in a heated-pit. Make a hot-bed of stable litter and leaves, on which place a thin layer of soil. Dig up the crowns in clumps, place them closely together on the hot-bed, cover them with a thin layer of soil, and water them in with a rosed can. Keep the glass covered till the flowers commence to open; then gradually inure them to light. A little air must also be admitted at this time to strengthen the flowers.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS

PLANTS UNDER GLASS.

CHRYSANTHEMUMS.—Before we are well through the annual exhibitions of this popular and indispensable flower, the exhibitor is making arrangements for next season, and as soon now as cuttings can be obtained they may be inserted. Some growers achieve wonderful results from spring-struck cuttings; but when it is realised that the Chrysanthemum is almost a hardy plant, and that a long season of cool treatment is better for it than pressure in a warm temperature, the advantages of early propagation are quite apparent where exhibition blooms or large specimen plants are aimed at. Another consideration is the necessity for getting rid of the old stools as soon as possible. These take up a lot of room, and must not be consigned to any out-of-the-way corner, or the quality of the cuttings will be affected.

Taking Cuttings.—Good sturdy cuttings about three inches long from the base of the stems should be selected. The soil for rooting them must be of a light nature, principally of loam, leaf-mould and sand. Cuttings placed singly in the centre of small pots is the method usually adopted, although they will emit roots more freely if inserted near the side of the pots or in boxes. Where three or more cuttings are placed in one pot or dibbled into boxes, a little more care is necessary when the time for repotting arrives; but where this is done carefully, no check in the growth takes place. A cool house should be selected in which to place the cuttings, but they must be kept close for a few weeks until rooted. A shallow propagating-frame or hand-light or any box that can be covered with a sheet of glass will prove equally suitable. Like most other plants, the advantage of an entire change of stock has been proved to be of the utmost importance in their successful cultivation. At this season there is still a good show of later sorts, although necessarily much reduced in variety; and for Christmas decoration Niveus and Western King still retain their popularity.

Begonia Gloire de Lorraine.—The present is a suitable time for raising fresh stock of this useful plant. Leaf-cuttings may be inserted in a light, sandy compost and placed where there are a brisk bottom-heat and a considerable amount of moisture. The leaves should be removed carefully with about an inch of the stalk attached, and inserted up to and including a tiny portion of the leaf, either singly in 2½-inch pots or in pans or boxes. When rooted, growth will soon be observed at the axis of the leaf and also from the base of the leaf-stalk, they can then be potted on, using a light soil and well-drained pots during the whole of the growing season.

Eucharis.—If kept growing in an even stove temperature all the year round, the plants are apt to produce flower-spikes intermittently throughout the year; but if water is withheld just to the point of flagging on the part of the leaves, and then applied liberally in a tepid condition with some soot added, the spikes will soon make their appearance. Supply the plants freely with water afterwards and repeat the process of partial drying again in June, when a large crop of flowers may be expected in July. Do not lower the temperature. The roots should be disturbed as little as possible.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FRUIT GARDEN.

SOME POSSIBLE CHRISTMAS FRUITS.

THE Colonial fruit exhibitions that are held from time to time by the Royal Horticultural Society are of extreme interest in showing the capabilities of our Colonies in the cultivation of native English fruits, not only for consumption in the Colonies themselves into which they have been introduced, but also for exportation back to the Mother Country from which the plants were originally taken.



FRUIT AND FLOWER OF THE AMATUNG ULU, CARISSA GRANDIFLORA.

There is, however, another side of the question of inter-Colonial trade that seems to be much neglected, viz., the lack of perseverance, until success is attained, in the exportation to this country of the native fruits of many of our Over-seas Possessions, especially of those situated in tropical regions. Particularly is this most apparent at the present day, when novelties and varieties of all kinds are so largely sought for. It is only on very rare occasions, such as at Colonial exhibitions, or sometimes at Covent Garden, that these fruits are seen in this country, and then only in small quantities. That there might be a demand created for some of them, so that they would become regular articles of import, is evidenced by the frequent references in the daily Press to new fruits and vegetables, and in this connection, referring again to the Royal Horticultural Society's shows, it is satisfactory to find that among the more uncommon fruits that have been more recently seen are the Golden Apple (Spondias dulcis), the Mammee Apple (Mammea americana), the Bread Fruit (Artocarpus incisa) and the Avocado Pear (Persea gratissima). The most likely, perhaps, of these fruits to suit the British taste is the Spondias, which is the produce of an anacardiaceous tree growing some 50 feet or 60 feet high, native of the Pacific Islands, and from thence introduced and cultivated in India and other tropical countries. In its fresh state it has an Apple-like smell, and in the best varieties its flavour is described as approaching that of the Pine-apple.

Perhaps four of the most likely fruits to find favour with the English consumer, but which are comparatively unknown here, are the Amatungulu (Carissa grandiflora), the Sapodilla Plum (Achras Sapota), the Kei Apple (Aberia Caffra) and the Rose Apple (Eugenia Jambos). The first is a native of Natal, where it is also known as the Natal Plum, the fruit varying in size from that of a large Olive to a Victoria Plum, which it somewhat resembles. At first these fruits are of a reddish colour, but change as they ripen to a dark violet. They have an extremely agreeable sub-acid flavour, and make excellent jam. Both the fresh fruits and the preserve have often been shown among Natal produce at the several International exhibitions, and have been commended, so that it is somewhat surprising they are still absent from English commerce. The plant belongs to the Order Apocyneæ, the characteristic properties of which are acrid and poisonous, both of which, however, are absent in the fruit under notice. Familiar examples of the Order are the Periwinkle and the Oleander.

Among West Indian fruits which for the last twenty years or more have been only occasionally seen in the English market, the Sapodilla Plum or Naseberry (Achras Sapota) would seem to be one of the most likely. It is about the size of a small Apple, slightly pointed at the apex. It is produced in great abundance, ripening from October to January.

It is necessary that the fruits should be thoroughly ripe or almost bletted before eating, because, belonging as the tree does to the Natural Order Sapotaceæ, to which Order the Gutta-percha Tree also belongs, it contains, especially in the fruits, a sticky, milky juice, which is quite dissipated when the fruit is dead-ripe. An amusing illustration of this occurred more than once at the Colonial and Indian Exhibition in 1886. In the Colonial market attached to the exhibition fruits and other vegetable products from the various British Colonies and India were sold from supplies brought in, almost daily, from the cold storage, and among the novelties in fruits the Sapodilla Plum had a prominent place. Quantities of them were brought from Demerara and arrived in sound condition, and those that had ripened on the voyage found ready purchasers, who consumed them on the spot; but a few had not become fully ripe, so that when they were eaten the milky juice became coagulated by the warmth of the mouth, sticking the lips of the eater together and producing a variety of facial contortions, to the amusement of the bystanders.

Aberia Caffra, known as the Kei Apple, is a native of the Cape of Good Hope, where it is grown for hedges in consequence of the long, sharp spines with which the plants are covered. The fruits are about the size of a small Apple, and of a golden yellow colour. They are used when ripe by the people for making into a preserve, or sometimes as a pickle, in consequence of their extreme acidity. Kei Apple jam is very good, but it is only occasionally seen in England. The plant belongs to the Natural Order Bixineæ.

The Rose Apple (Eugenia Jambos) is a close ally to the Guava, and belongs to the Myrtaceæ. It is a moderate-sized tree, extending through India, Burma and Penang to Australia, and cultivated both in India and the West Indies. The fruit has a flavour of rose-water; hence its common name. It makes an excellent preserve, and, as it is very productive, it seems to offer opportunities for more general use. It is probably too soft and pulpy to be exported in a fresh state, but preserved in syrup or candied with sugar it might well become better known. An attempt was made in this direction some years ago in Jamaica, the candied fruits gaining a silver medal at an exhibition in Philadelphia. They were afterwards introduced to the London market and were well received; but the experiment of fruit crystallisation being a new one in Jamaica and the supply at the moment being small, the matter eventually dropped. As the season for ripening these fruits in the West Indies is August and September,



FLOWERS AND FRUITS OF THE ROSE APPLE, EUGENIA JAMBOS.

the preserved fruits might well come into the English market at the most suitable season of Christmas, and this may be said of others.

Having had opportunities of tasting, either in the raw or preserved state, the four fruits here mentioned, I can endorse what has been said respecting them. It is to be hoped that at the great International Horticultural Exhibition to be opened in May next some advance will be made in a knowledge of the fruits as well as of the flowers of other lands. J. R. JACKSON.

THE ROSE GARDEN.

THE SINGLE WHITE AYRSHIRE ROSES.

THE beauty of our hedgerow Roses has for long been a theme for poets, and those of us who have no poetical fancies are not insensible to their beauty. There is one variety met with in certain districts known as the single white Ayrshire (Miss Jekyll's variety), which is illustrated herewith, and it may be procured of Messrs. Paul and Sons, Cheshunt, a firm who have done so much to enrich our collections of single Roses. This single Ayrshire, or Rosa arvensis, is found in Essex growing rampantly in the hedgerows, and the writer has found a variety that blooms quite a week or two later than the ordinary R. canina.

The simple beauty of single flowers appeals to all lovers of Nature. There is such a simplicity and grace of form and outline presented to the eye by a single flower; and, after all, it is Nature's own flower, for she rarely makes one double. We deplore the fact that they are so fleeting, and hope soon to see novelties of a perpetual-flowering character.

Those who love single Roses may have a real treat if they will visit Kew Gardens during June. Here there are hundreds of varieties, sorts that are not to be seen elsewhere, and I have spent many a happy hour among these lovely Roses.

Perhaps one of the grandest sights is the huge bed of Una, a Rose of exquisite creamy colouring, obtained by crossing R. canina with a Tea Rose.



SPRAY OF THE WHITE AYRSHIRE ROSE.

SINGLE TEA AND HYBRID TEA ROSES.

ONE cannot say too much in praise of these delightful Roses, for they not only possess a simple beauty in flower and a delightful charm of colouring, but they are so marvellously free in flowering, being in bloom practically from June to November. When cut, their lasting properties astonish one, that is, if cut in the early morning, or, better still, late in the evening, and placed in a plentiful supply of water.

Most visitors to the National Rose Society's exhibition at Regent's Park this year must have noticed the very beautiful first-prize table decoration, which consisted of Irish Elegance and the Lyon Rose. The single flowers of Irish Elegance gave to the decoration that light, airy appearance that always appeals to one, and which invariably secures for the decorator the premier prize. This variety is perhaps the most beautiful of the several sorts now in commerce; but I fancy it will have a formidable rival in Firebrand, a flower of a more coppery colouring, shown at the Crystal Palace this year by Messrs. A. Dickson and Sons, the raisers of both sorts. Messrs. S. Bide and Sons also have a very beautiful variety named Mrs. W. T. Massey, resembling but quite distinct from both. I have been somewhat surprised that we have had no pure yellows yet, for, as a rule, single Roses predominate when one is raising hybridised seedlings. I wish we could get one of the colour of Rayon d'Or, which is flowering before me as I write, looking for all the world like a beautiful rich Daffodil. Such a Rose with a growth like Irish Glory would be of untold worth as a decorative shrub. I say "shrub" advisedly, because I believe we should grow these Roses more as shrubs than as bedding plants. Irish Glory has a fine colour, a lovely silvery pink inside, and the reverse of the petals crimson. The flowers are quite 4 inches across and very sweet. Irish Beauty and Simplicity are two fine whites, the latter extremely large. Irish Harmony, Irish Modesty, Irish Pride and Irish Star are all good.

We seem to want a good dazzling scarlet of the free-flowering style of Irish Beauty. At present the bright-coloured varieties are not particularly free in blooming. Bardou Job is splendid, but not quite so free as one would wish; at least, it grows a little bit too strong, but is, nevertheless, very fine in colour. It is scarcely single, there being two rows of petals. Cooling's Crimson Bedder is a fine colour. It is of moderate growth, but is an excellent bedding Rose. Some of the sorts are badly addicted to mildew, which mars them considerably in autumn, and it is necessary to spray them well with V2 K Fluid or some other good mildew destroyer. As wall plants they are fine. I have Irish Elegance upon an east wall, and it seems to like the position, for it is gradually going upward, and will do so more if left unpruned, as I intend treating it. P.

THE FLOWER GARDEN.

SWEET PEA NOTES.

THE NATIONAL SOCIETY.—The fateful day—that of the annual general meeting — has come and gone and the society still exists. We were most solemnly assured beforehand that there would be such a furious disturbance that the society would die an instant, and perhaps I may interpolate premature, death. There was something in the nature of a stir-up; but instead of putting people's backs up, it gave them a greater conceit of themselves than they had ever had before, for each was convinced that the saving of the society was due to himself alone. I, personally, never believed that the society was doomed in this year of grace. Whether it will live out another decade is very much a different matter, and time alone can settle it.

THE FLORAL COMMITTEE.—In the public meeting the most unbounded confidence was expressed in the floral committee and its doings, but in private one heard the other note. To the managers of an association this form of criticism is unjust and irritating, because they have no chance of meeting the charges made, much less of refuting them. The bulk of the members at the meeting refused to acknowledge that there was the remotest feeling of dissatisfaction; but they are wrong, and the fact may be brought home to them in a manner

that will be more forcible than pleasant before the century has run a much longer course. There is real discontent, and to burke the matter is a mistake for which a price will have to be paid. I do not think that it is as serious as some would have us believe, and am convinced that proper steps taken by the committee would right things immediately; but I am certain that something will have to be done, and I shall expect to see it in less than two years.

THE FINANCIAL POSITION.—What will cause more disquietude to the thoughtful members of the society, and perhaps to those of the outside public who are interested in its welfare, is the present financial position. I do not desire to play the Jonah, but I have followed the fortunes of the society practically since its establishment, and am forced to the conclusion that it was never in a more parlous state. The balance is between twenty-five and thirty pounds less than last year, with £150 on deposit, which should not be considered as a credit balance in the ordinary working of the society—it is a reserve to be drawn upon in case of unanticipated catastrophe. Yet, with this lessened floating credit balance and the potentiality of having to disburse £25 in the event of loss on the International Exhibition of 1912, it was resolved to double the expenditure on the trials and to increase the already generous amount granted to the secretary as an honorarium. It may be pointed out that the increase of members is larger this season than in any other, which is true; but against it must be set the lapsed members, whose proportion is vastly greater than in any previous year. Then look at the cost of the trials next year, not less than £100, and the immense printing bill, £213. Is this last item likely to lessen? The society has had a splendid past; we all hope that it may have a more splendid future; but it must not rely on its past and say that what has been will be done again.

FAREWELL.—With this little grumble I take off the mantle that it has been an honour and a pleasure to wear for one year. The Editor decrees that it shall be borne upon the shoulders of Mr. Horace J. Wright during 1912. Let me simply say that I am glad. Other people may have made more fuss and sought for more recognition, but none has done more in the true interests of the Sweet Pea Society and its name-flower than he. Readers of THE GARDEN will, I am sure, give him a hearty welcome.

A. B. ESSEX.



MISTLETOE GROWING ON AN OAK TREE. (*See page* 619.)

RAISING DAFFODILS FROM SEED.

THE meagre response to my appeal of October 14 for help in the elucidation of one of the mysteries of cross-pollination of Daffodils is not very encouraging, but, with Mr. Lemesle Adams (November 4), I think that this question—which must be one of prime importance to hundreds of raisers—should not be allowed to remain where it is for want of further effort to seek a satisfactory explanation.

Mr. Chapman (October 21), in his reply to my note, misses the point of my enquiry, which, more clearly put, is this: What is the cause of the withering of the seed-pods of Daffodils in each of two groups, *i.e.*, (1) those that are commonly fertile, from which seed is easily obtained, as Emperor, Mme. de Graaff, the Poets, &c., and (2) those that form plenty of normal-looking pods but seldom produce seed, such as Sir Watkin, Seagull (with me) and Stella superba? There are other varieties that never, in my experience, form any pods at all, those already mentioned, Barri conspicuus and Ariadne being among them, and these may fairly be classed as sterile, their inability to reproduce themselves from seed being due, one may suppose, to atrophy or abortion of the ovules within the ovarium, or some modification of the style or stigma which prevents the pollen tubes from gaining access to the ovarium. These latter varieties may be left out of the discussion, as no amount of sunshine, no selection of pollen or most favourable conditions will bend them to our purpose. But what of those in Group 2, that so unmistakably try to set seed, that do occasionally produce plenty of it, and yet in so many seasons so bitterly disappoint us?

In giving names as examples I have purposely chosen those that are most familiar and most widely grown, and I will again instance Sir Watkin as an example in Group 2. Of this variety I grow many hundreds in beds, in borders, in grass, and in damp and in dry places. It always forms plenty of pods in all the positions, but I have never succeeded in getting a single pod of seed from it by artificial pollination. In 1909 a small group of this variety, not artificially pollinated, gave me a good crop of seed, from which I now have some seventy or eighty plants. Sir Watkin pollen is notoriously imperfect and infertile; under what conditions, then, did this always at other times infertile group of plants (presumably self-fertilised) all at once produce a generous quantity of seed? Is it possible that the organs of reproduction are perfect in some years and not in others on the same plants? It seems unlikely, and yet, when a consistent effort has been made to induce a large number of plants of this variety (these among them) to respond to admittedly potent pollens during a number of years, and under varying conditions, without success, one is rather driven to such a conclusion. I may mention that these particular plants have not been disturbed for seven years, are in stiff, damp soil, and have since resisted the most tempting overtures of fresh and varied pollens.

The answer to the general question as regards Group 1 will, I think, be found to be a cultural one, and a solution is as desirable in this case as in that of Group 2. Dryness at the roots, imperfect pollination, too much shade, not enough sun, may separately and together be suggested as possible causes.

Too much moisture at the roots is supposed to be bad for Daffodils; yet I have a colony of Horsfieldii growing in grass at the edge of a brook in the most unctuous soil one can imagine. During the winter the position is often under water, yet they grow with extraordinary vigour and always seed. They have not been disturbed for nineteen years!

It is certainly to be desired, as remarked by Mr. Lemesle Adams, that our present haphazard system of crossing and our tacit acceptance as inevitable of the many failures and disappointments met with in the pursuit of this delightful—shall I say hobby?—should give place not only to a more scientific comprehension of the plants themselves, but also of our methods of dealing with them.

JAMES SIMKINS.

[We welcome correspondence on this, as well as any other subject of general interest, but hope correspondents will make their replies brief.—ED.]



ree good single Chrysanthemums—
Pink: Mrs. Frank Hill.
Rose Carmine: Sylvia Slade.

COLOURED PLATE.

PLATE 1441.

THREE GOOD SINGLE CHRYSANTHEMUMS.

CORRESPONDENCE which has appeared in our pages recently anent single Chrysanthemums has denoted to some extent the increasing popularity which these flowers enjoy. The varieties shown in the accompanying coloured plate are all good, and may be regarded as fairly indicative of the best single-flowered Chrysanthemums. The pink-flowered one, Mrs. Frank Hill, is really a magnificent Chrysanthemum, the pure white zone surrounding the golden disc lending an additional charm to the blossoms. When shown before the Royal Horticultural Society last year by Messrs. G. Williams and Sons of Cardiff, it gained an award of merit, the large flowers borne on stout stems attracting a great deal of attention. Manor House Terra Cotta is also a beautiful variety of splendid habit and constitution, the soft warm colour being most welcome for decorations during the dull days of early November. Sylvia Slade, like Mrs. Frank Hill, owes not a little of its charm to the white zone that surrounds the central disc. It is a free-flowering variety, available for use in early November. The two first-named were raised by Messrs. Williams at Cardiff, and all the flowers from which our coloured plate was prepared were kindly supplied by them.

TREES & SHRUBS

WHY MISTLETOE IS USED AT CHRISTMAS.

MISTLETOE is one of the necessary ingredients of every well-appointed Christmas. How this came about is one of those interesting bits of history and legend which we are continually coming across when we try to find out the why and the wherefore for many of our present-day customs. Why should we wish to decorate our houses with Mistletoe at Christmas-time, and why should we be so careful to hang a bush of it up in some fairly conspicuous place? The answer is, that we are still following—"unknowns to most of us"—a tradition which had its origin in an older Norse tale of how Baldur, the beautiful, the god of poetry and eloquence, was slain by an arrow made from the Mistletoe.

He had had a dream which told him he would die, and to save him, his mother, Frigga, went to everything she could think of, earth, air, fire, water and all living things, and obtained from them a promise never to hurt her son. She forgot, however, the Mistletoe, or else did not think it possible that such an insignificant plant could do him any harm. Hence it came to pass that when Loki, the spirit of evil, wished to injure Baldur the Good, he took the form of an old woman, and in this disguise found out from Frigga which things had given their promise and which had not. He then searched for the Mistletoe, and, having found it, made it into an arrow. On a suitable opportunity, when the gods were at play, he got blind Hoder, the god of brute force, and directed him where to aim. Thus Baldur fell dead, pierced to the heart, and Loki triumphed. The sequel tells us how the gods restored the dead hero to life and how the Mistletoe was placed under the sole control of Frigga, so long as the plant did not touch the earth, the empire of Loki.



A WOODLAND SCENE IN WINTER.

The kisses that are even now given under the suspended bush are kisses of peace, designed in their origin to show that the Mistletoe is no longer an instrument of mischief.

But passing on to more historical days, we find that in the times of the Druids it held a position second to none in their sacred repertory. The cutting of the Mistletoe from the Oak, on which it is not often found, was a function of great importance and much solemnity. Milk white oxen were sacrificed, and a golden knife was used to sever the precious plant from the branch. When the sacrifice and the feasting were over, bits of it were distributed among the people. It has been suggested that it was its wonderful medicinal properties which more than anything else gave it its unique ascendancy in these distant times. Pliny, who lived from 23 A.D. to 79 A.D., mentions in his great work entitled "The History of the World" that it was called "Allheal" by the Druids, "for they have an opinion of it, that it cureth all maladies whatsoever" (Holland's translation, first edition, page 497).

Here, then, is a second and a particularly engrossing line of thought, namely, its medicinal value. How far are the old remedies "old wives' fables"? Is there more in them than we are aware of? I am disposed to think that there is. I shall have something very much to the point to say when I continue this article next week.

JOSEPH JACOB.

(To be continued.)

THE WOODLAND GARDEN IN WINTER.

THE woodland garden is a garden of moods and many phases. It is furnished with a wealth of colour when Daffodils and Bluebells have their seasons. Primroses should more often be encouraged in the woodland, for they are well adapted to such surroundings. Really good effects may be obtained in the early autumn by planting large clumps of some of the newer dwarf Michaelmas Daisies, Christmas Roses and Snowdrops make a brave display from now onwards, especially if grown among hardy Ferns, where they receive a little shelter from the resting Fern fronds. But there is an indescribable beauty in the woodland garden after the first fall of snow, which makes a contrast with dark and leafless trees not easily to be excelled in its wintry effect.

GREENHOUSE.

WINTER CARNATIONS.

AMONG all the newer varieties which are being continually introduced, none is better than the forms of Enchantress, the Pink, White and Rose Pink. These are most reliable, and produce fine large blooms of lovely shades. May Day is quite one of the best, its colour, deep satin pink, remaining good under all conditions. The stems are good and the habit perfect. It has only one fault, that is, it is subject to rust, and must be carefully treated all through the growing season. It is really the only one that has shown signs of this pest under our growing conditions. Other good varieties that are now in full glory of bloom are Mrs. T. W. Lawson, one of the freest, cerise pink; Mrs. Burnett, rose pink; Harry Fenn, crimson; Harlowarden, crimson; Carola; Alma Ward, a fine white and borne on long stems; Black Chief, velvety crimson, more robust than Harlowarden, but not so early to flower; Dorothy Gordon, a very fine flower, after the Rose Pink Enchantress type; Edith Waters, bright cerise, and bears extra fine flowers all the year round; Mrs. C. W. Ward, a fine pink and a perfect

flower, very early and free, lasts a long time when cut; O. P. Bassett, about the best red grown, free and large; Pink Delight, shell pink, a very early and continuous bloomer; Sarah A. Hill, an extra good white; in fact, I think perhaps this is the finest flower of all. It has very deep fimbriated petals, a powerful scent, and flowers 4 inches across. It flowers well all through the winter, and has long and strong stems. Britannia has a fine colour and stamina to recommend it, but under ordinary conditions it wants more heat to get it in flower early than most of the others I have named. The variety illustrated on this page is a good new one of pink colour, and was recently introduced by Messrs. Stuart Low and Co.

There can be no doubt that for general usefulness the Carnation holds pride of place, and with a flower placed on such a pedestal one cannot grow too many of these flowers. I have seen less of that pest of Carnation rust this last year than ever.

PELARGONIUMS IN WINTER.

WHEN well grown these plants are very prominent and always admired. They never fail to please, but, of course, badly-grown plants are not seen to advantage. What I call a good plant is one in a small pot with plenty of healthy foliage, dwarf, and with a full crop of large blooms. In order to obtain this result, the cuttings must be rooted fairly early in the spring and grown on without being starved, which means that good and rich food should be given all through the summer or growing period, also after the final potting and when the pots have become full of roots. Among the best we have in flower now are Fire Dragon, Mrs. G. Cadbury, Mme. Rozain, Mark Twain, Kate Farmer, Milford Rival, Winston Churchill, Prince of Wales, Sir E. Cassell, Sir T. Hanbury, Parker's Favourite and old Decorator, Lady Roscoe and Queenswood. These embrace all colours, including scarlet, salmon pink, crimson, and white. These plants require a light house and to be placed as near the glass as possible, with plenty of room between the pots so that a free circulation of air can be maintained. Air should be admitted through the top ventilators and the pipes always kept warm, so that a nice temperature of about fifty-five degrees can be easily kept up. Plants grown in 4½-inch and 6-inch pots are large enough for most purposes.

It may not be generally known, but it would be well for all those who have hunt-parties to provide for, that Paul Crampel, the popular bedding variety, makes an admirable plant for cutting through the winter, and lights up splendidly. It should be struck in March and grown on till the summer, when in hot districts it should be placed outside, plunged, and kept well pinched till taken inside in the first week in October or thereabouts, according to climatic conditions, when in a short time a bountiful harvest of blooms will be the result. During the flowering season the strength of the plants should be kept up by using Clay's Fertilizer occasionally. For table-work and jardinières these are admirably adapted, especially when a pot or two of Lily of the Valley is worked in among them. Good batches of the scented types should also be grown for winter decoration and cutting; the perfume is always an attraction.

Leonardslee Gardens. W. A. COOK.

THE TOWN GARDEN.

CHRISTMAS ROSES.—These at Christmas-time should of necessity prove a popular theme, if for no other reason than the sentiment which surrounds this most precious of hardy garden flowers. Unfortunately, they are not generally well cultivated, and the fact may be due to neglect, and not less so to a method of treatment recommended without fail—though not without failure—at this season of the year. Those who have established clumps of these plants in their gardens are told in text-books and garden calendars

TO LIFT THEM AND TRANSFER THEM TO THE GREENHOUSE to flower; and that the injunction is religiously carried out and with what results the many debilitated, leafless clumps in gardens provide ample proof. To lift these plants and place them in artificial heat for a time robs the garden of one of its greatest treasures, not for to-day alone, but in all probability for a couple of years to come. Sometimes, indeed, it is but the beginning of the end, and the plants perish outright because of the crude, unreasonable treatment meted out to them. Far better that we should protect them in the garden where they were, and in so doing preserve them for the garden to-day and for the time to come.

PROTECTING THE PLANTS WITH HAND-LIGHTS OR CLOCHES is not only a far simpler way; it has the advantage of superiority so far as the flowers are concerned. One has nothing to say against enhancing the value of a flower by lifting and forcing when little or no harm is done; but when great harm follows the operation, much might be advanced against it, and the Christmas Rose cannot be so treated with impunity. The root-fibres that are severed at lifting-time so late in the year as December hardly ever retake to the soil, with the result that the plant is thrown upon its own resources; hence the weakening effects to which allusion has already been made. Where the plants are specially required for greenhouse decoration at this festive time, they should be grown in small tubs—margarine or butter pails do well for a time—or rather deep pots, so that the lifting and transferring to the greenhouse inflicts no unnecessary harm. Thus treated, the established examples constitute very beautiful objects, and no plant of my acquaintance is worthy of greater care.

NEWLY-PLANTED ROSES.—Roses, generally speaking, delight in soils of a moderately holding or clayey nature, and at this season, with much wet, socket-like holes are likely to form about their stems. Such holes not infrequently are filled with water, and, frost ensuing, may be a source of danger to the plants. By placing a stout stick to each and tying the plant thereto the swaying is reduced to a minimum. If, in addition, a 3-inch mulch of short, loose, light litter be given to the surface of the bed, the severest frost will be kept at bay. The light litter mulch—peat-moss litter is quite good—is here recommended in opposition to manure which is fat and heavy and wet, since while of a highly-protective nature it does not exclude air. In the case of Teas and Hybrid Teas, Bracken is often employed among the branches, and is found to be of service. Where Bracken is not available, cut sprays of evergreens stuck into the soil about the plants. In this way the superfluous growth of Laurel, Box and Yew might be turned to account in many a garden, and while affording protective material of a useful kind, favours no coddling and presents nothing of the untidiness inseparable from straw and hay. Ashes, burnt earth, or finely sifted soil heaped up round the plants is probably the best protection of all. S. N. N.



THE NEW PERPETUAL-FLOWERING CARNATION BARONESS DE BRIENEN.

GARDENING FOR BEGINNERS.

HOW TO STACK LOAM FOR POTTING SOIL.

IN either large or small gardens it is a great convenience to have soils properly stored so as to be drawn on as required. The present season affords a most excellent opportunity for procuring and storing turf, or what the beginner or amateur understands and appreciates as turfy loam. Good loam is an essential factor in almost every compost having this as a basis of plant food. A loam that never fails to appeal to the gardening enthusiast is that which is obtained from an old pasture. This from most lands is much sought after. It is the top spit from an old pasture that contains a large amount of fibre, so much valued when making up composts that are of an open character. It is astonishing how much loams vary in their colour, some being of quite a dark colour and others of a yellowish hue.

Loam of a medium texture, *i.e.*, neither light nor heavy, may be regarded as ideal, and where this can be carted in, it is a great advantage to those who are able to obtain it. In most suburban and country districts it is not difficult, as a rule, to obtain loam of one sort or another, and the late autumn or early winter is generally observed as the period during which to make preparations in this respect for the future. It should be an annual practice to make up a stack of turfy loam, so that there shall always be an adequate supply of nice mellow loam available for potting composts. There is a proper way of doing this, however, and, unfortunately, in small or comparatively small gardens this matter often receives but scant consideration. The size of the stack must necessarily depend upon the storing space available and the probable requirements of the beginner. Whether the stack be large or small, the methods of arranging the clods of turfy loam are precisely similar. When stacking loam it is customary to arrange the clods of soil in regular order in a square or oblong heap, placing them with the grass side downwards. A layer of these pieces should be made to cover the outer edge of the stack it is desired to build. The clods may be arranged one, two or three deep from the outside in the stack, and the centre of the heap should be filled up with the smaller soil. To add to the value of the loam and to increase its fertility, a layer of stable manure with the straw should be placed between the layers of clods of turfy loam. Loams of medium and heavy texture should have horse-manure placed between the layers, and light, sandy loam will be improved if a layer of cow-manure be arranged alternately with the loam. A sprinkling of soot between the layers of loam is also advantageous, as this possesses fertilising properties and also helps to kill insects. Loam infested with wireworm should always be treated with alternate layers of horse-manure, as this serves to destroy this pest most effectively. Unless this simple remedy is practised, the wireworm will remain to menace the subjects that the soil may be utilised for potting up later on. The stack of soil should remain untouched for some months at least. Many gardeners refrain from drawing on the heap for supplies for fully a year, after which period it would be safe to commence to use the soil prepared in this manner. The best way to utilise it is to chop down from the side the quantity of soil required from time to time, using a sharp spade and chopping from the top to the bottom from whichever end a commencement is made. Some contractors cut their turfy loam much deeper than others—7 inches to 10 inches is not at all uncommon. The best loam, however, is about five inches of the top spit of an old meadow.

D. B. CRANE.

PLANTING TREES AND SHRUBS IN VILLA GARDENS.

THE immediate surroundings of a villa look furnished and beautiful or bare and uninviting according to the use and disposal of trees and shrubs. Existing shrubberies which contain many old and worn-out specimens may be greatly improved by the addition of a few choice ones and the judicious cutting back of long, bare branches. A too formal garden may be altered and converted into a pleasure ground with an appearance of large extent merely by the outlines of borders giving to them neat curves, instead of the too general straight lines. I was recently asked by a gentleman to advise him about the alteration of his garden, with which he was dissatisfied, although it was a new one and had been fully planted. Every path in the garden was straight and every border had a straight verge to it, and this sameness was not appreciated by the owner. Having given certain advice, it was forthwith acted upon; and when the builder came to inspect it soon afterwards, he said he was astonished at the improvement effected, and would have his own garden similarly treated. The altered garden appeared to be nearly as large again when the work was completed, and much more interesting.

Those trees and shrubs which it is intended to retain permanently must be planted first, and in such positions that, when from half to fully grown, their branches will not intrude unduly across lawn or path. The planting of trees and shrubs of large size too near the paths is a common mistake, as later on the necessary trimming off of the branches spoils their individual and general appearance. Shrubs used for filling-in purposes should be lifted before they have encroached on the side branches of the specimen or permanent subjects.

AVON.



LOAM STACKED GRASS SIDE DOWNWARDS, ALTERNATING WITH LAYERS OF MANURE.

FORCING LILAC.

IF Lilac bushes are not very carefully managed while they are being forced, the flowers may be quickly spoiled. Many kinds of plants—including bulbs, of course—that are forced in winter and very early spring are kept in a dark place, or in partial darkness, for a time. The Lilac can be most successfully forced in a dark place, provided there are the necessary heat and moisture. Now, where the soil can be temporarily scooped out under a stage in a well-heated structure, and nice dwarf Lilac bushes are available, there need be no difficulty in forcing them under the stage. Mats or sacks can be nailed up to exclude the light, and the heat from the pipes will be husbanded considerably. The plants must not be overpotted; if there is room for the roots and a small quantity of good sandy loam and leaf-soil, they will thrive well. Make the compost quite firm around the roots, and give a thorough soaking of clean water. The newly-potted plants may be taken to the house and subjected to the forcing temperature at once. Until the flower-buds have opened slightly, the plants must be syringed several times every day, except in frosty weather, when one syringing will suffice. The sacks or mats must be gradually removed, so as to admit full light to the position where the plants are at the end of about four days. The syringing of the flowers will not be necessary—indeed, it would prove harmful—but the pots and their immediate surroundings must be syringed or damped very

frequently. Only occasional full waterings of the soil will be necessary. Not only are the flowers delicate, but the foliage, too, and if fully exposed to strong sunshine both will be scorched, even in winter-time, so adequate shading will be advisable. Charles X. (rosy purple), Mme. Lemoine (double white), Souv. de L. Spath (purple scarlet) and Virginale (pure white) are good varieties to force. AVON.

DECEMBER IN THE GARDEN.

TO the ordinary lover of hardy plants, the month of December is a dull one, but to those who raise seedlings it is an interesting time, as lots of little things may now be seen making their first peep through the soil. Outside against the south wall of a warm greenhouse Iris stylosa is pushing up its buds; one day they just show themselves, and the next we are surprised to see them with quite a length of stem. The wise man will then cut them and put them in water inside, where they rapidly open and reveal their charming pale blue colour. My plants of Iris stylosa have been starved and unmoved for years and years, and this is, I think, the only way to ensure a good quantity of these delightful flowers, which most of one's friends take, when they see them, to be "hot-house grown."

In a quite cold frame Iris Vartanii is in flower, and Histrio and histrioides are both in strong bud; in the same frame, too, seedlings of Iris reticulata, I. Krelagei, I. Melusine and heaps of hybrids are pushing up strong and healthy growth, with promise of a delightful display early in the New Year. Here, too, are seedlings of Narcissus triandrus albus and calathinus, a little too delicate and dainty to be trusted in the open border, all just showing their noses and giving interest to the dull season as one watches them appear day by day.

In a cold greenhouse near by, a quantity of seedlings from Cyclamen ibericum and C. Coum are full of bud, which, indeed, has been the case with them for a month or two; it is wonderful what a long time the buds of these little things appear before the flowers expand, but about New Year's Day we hope to see some of them out.

In the cold house also are pans of Iris seedlings, reticulata, Krelagei and several others, 1910 and 1911 sown, and also I. Tauri, of which a quantity of seed was saved this year; the tiny plants are now just showing. I wonder if they will prove to be any the stronger by being English sown and grown.

Pots and pans of Galanthus (Snowdrop) seedlings also have their home here—Elwesii, Whittallii, Ikariæ and others, and also several of the Crocus species. All these are planted outside in the border when two years old, but the reason we keep these young things in a cold house is that they are practically never taken by a snail or slug, though they quickly fall a prey to them at this age if grown outside or in a frame.

Everyone to his taste, but there is to me a fascination about the raising of seedlings from hardy bulbous plants that other things do not seem to give, and when the month of December arrives it is always an exciting time as one watches the seed-pans from day to day and ticks off failures and successes—failures which are sometimes surprising disappointments, and successes often where we least expected them. To me, at least, and no doubt to many other ardent amateurs, the month of December is not without its special interest. X.



SILVER BOWL OFFERED BY MESSRS. CLAY AND SON FOR THE BEST EXHIBIT OF ROSES AT THE INTERNATIONAL HORTICULTURAL EXHIBITION NEXT YEAR.

A HANDSOME ROSE BOWL.

ON this page we illustrate the Rose bowl presented by Messrs. Clay and Son to the Royal International Horticultural Exhibition, 1912. It will be awarded to the premier Rose exhibit. The following description is supplied by the manufacturers, Messrs. Elkington and Co., Limited: The bowl is silver-gilt, with Roses and a floral band in hand-chased repoussé, in high relief, and gilt in natural colours. The bowl measures 13 inches across; its height without pedestal is 6½ inches, with pedestal, 10 inches; it weighs 80 ounces. The inscription, which is engraved upon a silver-gilt plate attached to the pedestal, reads as under, "Presented to the Royal International Horticultural Exhibition, May 22nd to 30th, 1912, by Messrs. Clay and Son, Stratford, London, E." It is also proposed to have a detailed inscription engraved within the bowl itself.

INTERESTING PLANTS FOR THE ROCK GARDEN.

AMONG the many flowers suitable for the rock garden which may also be utilised in the border are the Vesicarias, or Bladder Pods. They are bright and showy flowers when in bloom, and the feature whence they derive their popular name of Bladder Pod gives them a special interest when they are in the seed stage. The flowers are generally bright yellow, and the seeds are contained in small bladder-like pods, interesting in appearance and forming a feature which is worthy of examination. There are several species known, but all of these are not in cultivation. This is of little consequence, as the two which are best known are pleasing enough to satisfy the majority of gardeners.

The Arctic Bladder Pod, Vesicaria arctica, is a species not at present obtainable, but worthy of reintroduction. It is a perennial, introduced from North America in 1823, and grows about 1 foot high. It has close racemes of yellow flowers and pretty silvery leaves of a rather lanceolate shape.

In Vesicaria gracilis we have one of the annual species, which are not generally to be commended. The flowers are small and are more starry than others. It is a native of Texas, flowers in June and grows about 6 inches high.

Vesicaria græca, the Greek Bladder Pod, affords us one of our prettiest rock plants of its kind. The clusters of yellow flowers, resembling those of a Wallflower, open in summer and are sweetly scented. It grows about 1 foot or a little more in height, and is a plant which with a little care lasts for many years.

Unfortunately, the seeds of Vesicaria grandiflora, one of the best of the members of the genus, although an annual, do not appear to be available at present. Possibly the promised revival in the taste for annuals may bring the seeds into the market once more. It has large yellow flowers in long racemes and grows about 1 foot high.

The Bladder-podded Vesicaria is called V. utriculata, and is one of the very best of the genus, its perennial habit, combined with its general beauty, rendering it one of the most valuable of the genus for general purposes. It grows about 1 foot high, has clusters of bright yellow flowers and oblong leaves, the flowers being followed by rather large, rounded pods. This is a reliable species, remaining in good condition for a number of years. It flowers from about April until June.

These Vesicarias like a dry soil and a sunny situation, and while suitable for the border, are

more adapted for rockwork, especially the perennial species. All the species can be easily raised from seeds sown in the open in little drills from April to June or July, the seedlings pricked out when large enough to handle and planted into their permanent quarters in September. The seeds may also be sown in pots or pans of light soil under glass from February until April, treating them in the same way as other hardy flowers. Cuttings of the perennials may be struck under glass at any time in summer or autumn.

Dumfries. S. ARNOTT.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the* PUBLISHER.

ROSE GARDEN.

Roses for massing (*T. M. B.*).—You could not plant any tribe more suitable for making a display in the garden than the lovely Hybrid Teas. Most of them are as hardy as the Hybrid Perpetuals, and if earthed up a little in severe weather will come through an ordinary winter unharmed. We take it you desire to have one variety in each bed; but should you wish to put two or three sorts in each bed, we give below the names of varieties that would blend together. If one variety in each bed, we recommend the first named. Pink or salmon pink—Caroline Testout, Mme. Abel Chatenay and Mme. Leon Pain; yellow or apricot—Mme. Ravary, Le Progrès and Mrs. Aaron Ward; white or blush—Pharisaer, Prince de Bulgarie, La Tosca and Admiral Dewey; scarlet or red—General Macarthur, Richmond, Laurent Carle, Charlotte Klemm and Leuchtfleur.

Rose-growing for profit (*A. C. W.*).—We should say the market is already overcrowded, and to one like yourself, who would start without any experience, it would be uphill work. Most of our successful growers are men who have been in the line all their life. We fail to see how the writers on preparing Rose-beds contradict each other. The object in not making the bed too rich at first is that the young plants do not require rich food until well established, and no doubt in the catalogue mentioned it is advised to put the rich food low down, so that the roots of the Roses do not immediately come in contact with it. As to taking out all old soil and giving new, this is sound advice if the old soil is exhausted, and the new soil need not be rich in fertilisers. We strongly advise giving the Roses when established good reserves of fertiliser to draw upon. We know one of our successful exhibitors makes it a practice to take out trenches between the rows of his plants and puts in a deep mass of strong manure. If this is done annually, one need not apply liquid manures in the summer-time. We are great believers in basic slag for putting into the subsoil of new Rose-beds, and we have seen splendid results from such a practice.

Rose twigs (*Captain S. A. Orr*).—The foliage appears as though some hot water had been thrown upon it, or strong insecticide used. We do not think it is anything serious, and it will naturally fall very soon. You may even cut away these injured growths now that the season has closed.

Roses for hedge (*Penzance*).—A very suitable Rose, and one not growing so vigorously as the Penzance Briars, would be the Copper Austrian Briar and Austrian Yellow. You could also mix with these the exquisite perpetual-flowering sort, Gottfried Keller, or you could have a hedge entirely of this Rose. You could plant quite a number of medium tall perennials, such as Chrysanthemum maximus and its many excellent varieties, Phloxes, Pæonies, Coreopsis, Achilleas, Echinops, &c. Why not plant an edging of Polyantha Roses? They are delightful gems, and equally as lovely as Pinks. The variety Jessie is quite one of the best things ever raised, and is as brilliant as a Geranium, and also everblooming.

TREES AND SHRUBS.

Magnolia grandiflora (*N. A. H.*).—It would be better to leave your Magnolia grandiflora until April or May to prune. You may then remove or shorten a number of the outgrowing branches and tie others in. By doing this you are not so likely to destroy your chance of obtaining flowers as if you were to prune the whole plant hard back at the same time. Next year you may remove more of the outgrowing wood, for by that time new shoots will have been formed from the branches pruned this year. Be careful to make clean cuts, and paint the wounds over with gas-tar as soon as they are made.

Ruscus racemosus (*S. W. P.*).—Ruscus racemosus may be propagated quite well from seeds. The seeds may be gathered when ripe, and be either sown at once in a bed out of doors or be stored in sand and sown in spring. Make a bed 3 feet or 4 feet wide in ground that has been dug and trod lightly. Rake the surface fine and sow seeds thinly, covering them with not more than half an inch of soil. If you prefer it, the seeds may be sown in rows 9 inches apart, which will enable you to partly clean them by hoeing. If the other method of sowing the seeds is adopted, you have no option, of course, but to keep the seedlings clean by hand weeding. At the end of the first year the seedlings may be lifted and given more room in a nursery border. By the end of the following year they ought to be quite large enough for permanent planting.

FRUIT GARDEN.

The Nanny Apple (*Mrs. G. A.*).—This is an old variety of excellent quality, and it seems strange it is so little known. Dr. Hogg says in the "Fruit Manual," "a dessert Apple of excellent quality, one when in perfection a first-rate fruit. It is in use during October, but soon becomes mealy. This is met with about Havant and other districts in West Sussex, and on the border of Hampshire." We have heard Nancy Jackson called the Nanny, but it is a perfectly distinct variety, and while the latter is almost confined to the districts named, Nancy Jackson is best known in the Midlands and the North.

Pears on pot tree decaying at the core (*B. M.*)—This not infrequently happens with Pears grown on trees in pots. The reason, we think, is that the fruit is left hanging too long on the trees, and being exposed just at that period of ripening to too much heat. If gathered earlier and allowed to ripen slowly in a temperature not so warm in a fruit-room, the mischief, we think, would not happen.

Apple trees diseased (*J. B. S. M. A.*).—The curious warty appearance of the Apples you send is rather difficult to account for at the present stage; but we do not think it can arise from the trees having sent their roots into an uncongenial subsoil. It is probably due to an early attack of the fungus Fusicladium checking the growth of the skin and afterwards failing to develop further. We think you would be well advised to go over the trees thoroughly, removing all dead and diseased shoots and branches, and especially any that show cracks on the bark of the young shoots, and to spray the trees just before flowering, and again after the petals fall, with Bordeaux mixture of half the strength generally used for spraying Potatoes.

Deposit on Vine leaves (*A. E. P.*).—The black deposit on the Vine leaves is the result of the Vines being infested with mealy bug, a wretched pest most difficult to get rid of. Your best way of doing so will be to burn all the leaves as they fall, and all the prunings at pruning-time. Then rub off all the *outer* rough bark of the Vine burning all that falls of this also. Then wash the Vine rods carefully, thoroughly wetting every part with Gishurst Compound, mixed with water as per instructions given on each packet. Then have the house thoroughly cleaned—glass, rafters and walls. If the house can be painted and whitewashed, so much the better. This done, take away 3 inches or 4 inches of the top soil of the border and bury deeply in the garden, as it very likely will contain all the larvæ of the pest. Replace with sweet turfy loam and a sprinkling of bone-dust.

KITCHEN GARDEN.

Wintering Salsify roots (*R. C.*).—These roots are so far hardy that in fairly light, porous soils they are little affected by frost, and retain their natural moisture better so treated than if lifted and stored in sand. If it is advisable in prospective hard weather to lift and store roots in sand or dry soil in a shed or cellar, it is wise to cover those left in the ground with straw, litter or Fern, as the roots are then secure from harm. But where it is imperative that the roots be all lifted, the ground being wanted for other crops, or because it may be too wet, then it is a good plan to dig deeply and finely a strip of ground close under a hedge or fence facing south, or else beneath overhanging trees or Filbert bushes, and, chopping down a furrow with a spade 10 inches deep, pack the roots, leaves upwards, close together in the furrow and place soil fairly firm to them. If there are too many roots, make a second furrow 1 foot from the first; then, with dry tree leaves or Fern placed over the rows, no frost will injure them, and they will keep fresh and moist. The roots should be cooked until soft, mashed, formed into cakes and fried in butter. The flavour resembles that of oysters.

Weighty Carrots (*Breadalbane*).—We know of no record of weight in Carrots having been kept; but certainly one of the weight of 4lb. 9oz. must have established a record, so far as relates to the St. Valery type of garden Carrot, although the white field Carrots often attain greatness and weight. Very recently a mild sensation was caused among the readers of one of the London morning papers because some roots of this same variety, though exhibited under the name of Scarlet Intermediate, were reported to have been 4 feet in length. Still, deducting 30 inches of long, thin, string-like tap root, what was left edible was not of unusual length. For table purposes the chief favour is shown for small rather than for large Carrots, as large roots are rather woody and lack flavour when eaten. For that reason, quite medium size, good colour, smoothness and beauty are the prime requirements in exhibition roots in the South. However, it is quite possible that from other sources may come records of large Carrots, but yours will be hard to beat.

FLOWER GARDEN.

Spanish Irises and Anemones (*Regular Reader*).—The growth of these is quite in order, and in a light soil like that you describe, and during an ordinary winter, no protection would be necessary. In case of very severe frost following upon a wet time, the Anemone growth may suffer, since it is more than likely that the tubers were French grown, by the early start they have made. In that case a light covering of Bracken would suffice, or, indeed, even a few boughs of Laurel would afford much protection. If the plants are in groups in the border, the latter method would be best, sticking sprays into the soil round about the plants. For the Irises no covering would be needed.

Perennials for Pæony border (*J. H. S.*).—The best perennials for the purpose named would include Sunflowers, Everlasting Pea, Hollyhocks, Phloxes, Delphiniums, single and double flowered Pyrethrums, Flag Irises, Michaelmas Daisies and the like, and you might include such Lilies as croceum, umbellatum, tigrinum, testaceum, candidum and speciosum rubrum. Of each of these Lilies not less than half-a-dozen bulbs should be put to form a group if a bold display is required. Of the Sunflowers (Helianthus), H. multiflorus (simplex), H. m. plenus and H. Miss Mellish would be the best; Everlasting Peas in white and red; Hollyhocks, a good strain of English seedlings; Phloxes, Mrs. E. H. Jenkins (a splendid snow white and a fine doer), Etna (scarlet), Iris and Violet (blue shades) and Flambeau (reddish scarlet). Good Delphiniums are La France, Carmen, King of Delphiniums, Mrs. Creighton and True Blue. You should plant three each of these in a group to get an immediate effect. Of Pyrethrums, Hamlet, Mrs. Bateman Brown, J. N. Twerdy, Carl Vogt, Pericles and Ne Plus Ultra; of Irises, Chelles, pallida dalmatica, Dr. Bernice, Mme. Chereau, Mrs. C. Darwin, Queen of May, L'Innocence and Princess of Wales are all good; while of Michaelmas Daisies (Asters) you cannot do better than select Desire

Profusion, Climax, Amellus, cordifolius Ideal, c. Photograph, c. Diana, Novæ-Angliæ Mrs. Rayner, W. Bowman and Lil Fardel. Other good Asters are acris, lævigatus, Novi-Belgii densus, diffusus horizontalis and subcœruleus. Apart from these, you might plant hybrid Columbines, Trollius, Lupines, Gaillardias, and Campanulas with masses of Tufted Pansies.

MISCELLANEOUS.

Cutting down old Azalea bush (*J. B. S. M. A.*)—Old bushes of Azaleas do not break out readily from the hard wood; still, if you only wish to shorten it a couple of feet, we think you might do so without risk. The best time to do so is immediately after the flowers are past

Injury to Potatoes (*D. M.*).—The Potato is affected by brown scab, not black scab. This trouble is only skin deep, and is probably due to injury to the skin of the Potato during its development either by corrosion against sharp stones or by insects such as the wireworm, which we see has been attacking the tubers.

Weeds on lawn (*W. B. W.*).—Two weeds were sent for examination, but neither was Cerastium. That with trifoliate leaves is the common Clover (Trifolium repens); the other is the common Selfheal (Prunella vulgaris). You will find that both are difficult to eradicate, and the best plan to adopt is to encourage the grass by dressing it with sulphate of ammonia mixed with rich soil, or by dressing the land well with well-rotted manure. Sulphate of ammonia may be applied at the rate of 1lb. to the square rod. It is probable that its distribution will be easier if it is first mixed with fine soil. You may find that it is possible to rake out some of the weeds by means of a short-toothed iron rake. A dressing of lawn sand may be applied next year.

The value of a supply of vegetables (*Mrs. D. R. C.*).—In the absence of an agreement, the usual custom in England is for the gardener or steward who may be in charge of the garden to receive vegetables for consumption at his home when they can be spared; and in gardens of any extent there are always some kinds of vegetables above and beyond the requirements of the employer. It is difficult to place even an approximate cash value on these, as so much depends on the quantity consumed and on the quality of the vegetables; but there is no doubt that, like milk and coal, they are a valuable asset to the gardener, especially if he happens to have a large family. If you could give us some idea of the extent of the supply per week, we could possibly help you further.

Sowing Rose seed (*E. P. S. and Others*).—We had an article some weeks ago upon the subject. It appeared in our issue of September 16. The heps should be gathered as soon as ripe, and their stalks placed in pots of damp sand. Early in December the seeds should have been rubbed out of the pods, sown in pots of prepared soil and placed in a a warm greenhouse. The compost should consist of sifted loam, leaf-soil and sand in equal parts. Fill the pots (8-inch) about one-third full of fine crocks, then nearly fill with the compost. Lay the seeds on the surface and push them down into the soil to a depth of half an inch. The soil must not get dry, but, on the other hand, do not keep it too wet. In about three months the little seedlings should appear. You should try to obtain seeds from some of your Rose-growing friends. There is abundance of seed this year, and we may not see the like again. Or your seedsman would obtain you some, although we have not much faith in it, as seedsmen allow it to get dry, and this should not be.

Utilising a small holding (*M. M. H.*).—If a small holding is near a town it can be cropped with good marketable vegetables for sale, or it may be planted with hardy fruits, also for market sale. But while position is important, soil also is important, as if that be poor or wet or very shallow, and liable to be dried up in summer, then it affords a poor prospect of success. Again, there has to be considered conditions of working. A holding ranging from one-half to a full acre is relatively a small one indeed. But to utilise that acre to the fullest, the ground should be trenched 20 inches deep during the winter, the bottom soil, though well broken up, yet left at the bottom; also have a good dressing of manure worked into it. Then in the spring it should be cropped with early Peas, Potatoes, Onions, Carrots, Cabbages, Cauliflowers, Lettuces, French Beans, Beets and other vegetables, following with later Peas, Potatoes, Cabbages, Celery and other kinds of good marketable vegetables. Still, any expectation of profit must depend on good culture and finding a good market. Apart from the cost of labour, you would have to include that of manures, seeds, tools, sheds, and possibly a frame or two, with necessaries for marketing. Our idea of a small holding is one of several acres, and, still further, one of a large group, so that the holder could co-operate with others in labour, purchasing and marketing. Such a holding should have a portion devoted to vegetables, to fruit, to flowers, to pasture for a cow and poultry, also to Potatoes, alternating with some green crops for the cow, roots for pigs, and so on. In such a case there would always be something to market.

Names of plants.—*M. E. B.*—The Butcher's Broom (Ruscus aculeatus). A hardy shrub in this country.——*Meg.*—The flowers were smashed almost to pulp when received.——*M. Golby.*——We believe the Rose to be Mme. Caroline Kuster. Although not recognised as a climbing Rose it is nevertheless a good one for a wall.

Names of fruit.—*Seaside.*—1, Tibbett's Pearmain; 2, Beauty of Hants; 3, Christmas Pearmain.——*R. W., Watford.*—1, Frogmore Prolific; 2, Round Winter Nonsuch; 3, Striped Beefing; 4, King of the Pippins.——*Glass, C. C.*—1, Cox's Pomona; 2, Melon Apple.——*M. M. H.*—The Apple sent is an American variety Ben Davis) which seldom succeeds in this country. We can recommend you the following varieties to plant: Cox's Orange Pippin, American Mother, Egremont Russet, Blue Pearmain, Lord Hindlip, Newton Wonder, Lane's Prince Albert, Ecklinville Seedling and Bramley's Seedling.

BOOKS.

The Scottish Botanical Review.—This is the name of a new periodical devoted to botany, to be issued in January under the auspices and with the financial support of the Edinburgh Botanical Society. It has been arranged for owing to the *Annals of Scottish Natural History*, which has hitherto included Scottish botany in its purview, having decided to devote itself entirely to zoology. The editorial committee announced is a strong one, comprising some of the best-known botanists, and while Scottish botany will be the leading feature, other botanical researches will be reported. The annual subscription will be 7s. 6d., post free, in the United Kingdom, and the magazine will be published quarterly. Mr. M'Taggart Cowan, 40, Great King Street, Edinburgh, is receiving the names of subscribers.

Roses.*—This, the tenth volume of the series, is what the publishers term a double volume, *i.e.*, it is larger and costs more than previous volumes. But it is worth the extra price. The author is one of the best amateur growers in the country, and his writings under the pen-name of "White Rose" must be familiar to many. There is little relating to Rose-growing that really matters which is left undone in this interesting book. The author deals with his subject in a thoroughly practical manner, without indulging in those high rhetorical flights so much favoured by some authors of the day. The chapters on the preparation of the soil and pruning are exceptionally well done, though we must confess that we were somewhat amazed at the wonderful array of tools and other apparatus which the author uses when pruning. However, every workman has a right to choose his own tools, and so long as results are good there is little cause to grumble. The chapter on manures, and also that on Roses for small gardens, should be of the greatest assistance to amateurs and small growers generally. Propagation in all its phases is well and fully dealt with; but in referring to stocks for standard Roses, no mention is made of rugosa, a stock that many nurserymen are now using in preference to Briar. The selections of varieties for various purposes are good, although perhaps a little long. The number of really good Roses, however, is now so numerous that the author may well be pardoned for erring in this respect. In his list of bedding varieties we would have included Arthur R. Goodwin. Although not a Hybrid Tea, it is a fine bedding Rose of exquisite colour. Mrs. Darlington contributes an excellent chapter on fragrance in Roses, in our opinion a most important feature of the Queen of Flowers. In connection with this chapter it is unfortunate that the editor should have interleaved the coloured plate—if we may stretch a point and term white a colour—of Frau Karl Druschki with Mrs. Darlington's chapter. It is notoriously devoid of fragrance. Rather would we have seen the plate of Mrs. John Laing, the sweetest of all Roses, filling this position. Some of the coloured plates, notably Hiawatha and Mme. Ravary, are good; but that of Mrs. John Laing is poor, and does not do this fine Rose anything like justice.

* "Roses," by H. R. Darlington; 2s. 6d. net. Present Day Gardening Series. London: Messrs. T C. and E. C. Jack

SOCIETIES.

KENT COMMERCIAL FRUIT SHOW.

THIS show, held at Ashford, has undoubtedly set the advertisement of British fruit on a sound footing. The quantity displayed by the two hundred odd exhibitors amounted to about ten tons, a weight never before exhibited to the public. The aims of the show also include the introduction of a non-returnable package of standard size, together with better methods of grading and packing. That the British fruit-grower is alive to these factors can be noted by the excellence of the packing of quite 50 per cent. of the exhibits. The fact is further emphasised when one remembers that two years ago the number of Apples sent to market by British growers in these non-returnable boxes, packed according to the method so largely adopted by Colonial and foreign growers, was under one hundred boxes. The committee, composed of growers and representatives from all over Kent, was particularly fortunate in obtaining judges whose opinions carry great weight, and who are also well known in connection with the industry. Messrs. Lobjoit and Martin judged simply from the growers' standpoint, while Mr. Poupart looked at the exhibits entirely from a wholesale buyer's point of view.

Bramley's Seedling, five boxes: First, Mr. C. S. Smith, Boughton Monchelsea; second, Mr. W. L. Hubble, Faversham; third, Mr. W. W. Berry, Faversham. The season undoubtedly affected the condition of Bramley's Seedling considerably, and accounted probably for this class being the worst in the show. The first-prize lot were of medium size, good colour and well packed. The second was the only exhibit which was still in good condition. The Apples were very green, well graded and packed, but were on the small size. On this account many persons did not agree with the judges. Special mention should be made of the fruits grown by Mr. F. Smith of Loddington, which were undoubtedly very fine, and which only failed to obtain a place on account of uneven grading.

Newton Wonder, five boxes: In the opinion of many, the Apples in this class were the finest collection in the show. The packing, however, was below that of any other class. First, Mr. S. Smith, Barming; second, Mr. W. W. Hubble, Hunton; third, Mr. A. Miskin, Chart Sutton.

Lane's Prince Albert, five boxes: Some very fine lots, but inclined to be out of condition owing to the very early season. First, Mr. W. L. Hubble, Faversham; second, The South Eastern Agricultural College, Wye; third, Mr. A. Miskin, Chart Sutton.

Blenheim Orange, five boxes: Another fine lot. First, Mr. W. W. Berry, Faversham; second, Mr. W. W. Hubble, Hunton; third, Mr. S. Smith, Barming.

Any dessert Apple (not Blenheim Orange), three boxes: This class attracted a large number of entries, chiefly Cox's, which another year should undoubtedly be placed in a class to themselves. Some surprise was expressed at the first prize going to a superb lot of King of the Pippins. Although only of a good medium size, the condition, colour, grading and packing of these boxes were perfect. These boxes showed to what excellence this variety can be grown on some soils. The second and third prizes went to Cox's Orange Pippin, which, although very beautiful, were not of such fine quality for this year's fruit as the first prize was for its own variety. First, Mr. W. L. Hubble, Faversham; second, Messrs. Gaskain and Whiting, Faversham; third, Mr. S. Smith, Barming.

The best-packed box in the show, branded and labelled ready for market: The packing in this class was, in the majority of the exhibits, excellent, considering that this is the year in which these packing methods have been introduced. The prizes were given for boxes packed with no wood-wool or paper between each Apple or layer. That such an amount of material is not required was easily demonstrated by the condition of the Apples in the prize lots. So long as the Apples are well graded and packed tightly, they will travel perfectly. Pack them loosely, and they will shake in transit and bruise badly. A word must be said about the labels. A mistake is made in having them so dull. The label may look very nice when it leaves the grower's packing-shed, but it will in all probability look very dull when it reaches Covent Garden. Labels must, therefore, be as striking as possible without offending the artistic temperament of the public. First, Mr. S. Smith, Barming; second, The South Eastern Agricultural College, Wye.

OPEN TO GREAT BRITAIN.

A cooking Apple in season, one box: First, Messrs. Gaskain and Whiting, Faversham. This box of Annie Elizabeth, which also obtained the champion cup for the best box in the show, was undoubtedly superb. The packing was so good that the Apples arrived with no blemish whatever. They were also a good size and very even. The fruit was clean and of excellent colour. A box of Wellingtons exhibited by the same growers was thought by some to be as good, if not better. Messrs. Gaskain and Whiting should be congratulated on the quality and excellence of their produce. Second, Mr. A. Miskin, Chart Sutton, with an even and well-packed box of Newton Wonder.

A dessert Apple in season, one box: First, Messrs. Gaskain and Whiting (Cox's Orange Pippin); second, Mr. J. Redmond, Loughgall, County Armagh, Ireland (Gascoyne's Scarlet). This class comprised the finest collection of dessert Apples in the show, and the judges had difficulty in awarding the prizes.

A new dessert Apple, half a box: First, Mr. A. J. Thomas, Sittingbourne (The Houblon). A fine lot.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

WINTERING ALPINE PLANTS.

THERE would appear to be a rather widespread notion abroad—among amateurs and beginners at least—that alpine plants require some sort of winter protection. There is truth in the idea, and there is also that modicum of complex contradictoriness which requires a little explanation. We are considering these plants from the cultivator's standpoint in British gardens, far removed from the rarefied, windswept air of their mountain homes, the perfect dryness of the great snow mantle which covers and protects them for weeks or months on end, and, not least, that absolute uniformity of temperature which, in conjunction with the conditions already named, must of necessity play so important a part in their preservation during their long spell of sleep. Hence the snow covering one has in mind, while affording unlimited protection in exceptional circumstances, also in turn supplies them, through the medium of the melting snow, with a beneficent watering on a most generous, if not indeed lavish, scale.

In our home gardens in the lowlands the plants are bereft of all this protective snow, and doubtless to some extent they miss the dryness and the highly-rarefied air of the mountain which must mean so much to them; and from our point of view we have nothing to offer as a fitting substitute for what is theirs by nature. We may have snow to-day, though in lowland England it but rarely falls upon dry plants, and almost as soon as it reaches the ground it is seen to be melting and vanishing away, making wetter and more uncomfortable their surroundings as the days and weeks pass by, each, as it were, but a replica of the last.

In the open rock garden, for all such plants as are grown in colonies or groups we have little or nothing to offer in the way of protection; hence for their safety they are more or less dependent upon the intelligence of the planter, who should ever provide them with the best at his disposal. The "best" in such circumstances would of necessity entail a studiously-selected position, with the provision of suitable gritty soil and perfect drainage. Here and there for the choicest of things, Androsaces and the like, sheet-glass protection should be given, and, in conjunction with the above-named conditions, a mulching of moisture-absorbing rock about the plants to diminish damp and its consequent ill effects as much as possible. Happily for the abounding hardiness of the great mass of mountain vegetation, we lose comparatively little as a result of actual frost, the great arch-enemy being damp and exposure.

In dealing with choice alpines in frames, the cultivator is in a somewhat different position, albeit his short-sightedness and fear frequently bring about the worst possible results. Curiously enough, while the plants in the open rock garden, be it large or small, are permitted to shift for themselves, the moment they are framed a species of coddling—of closing up and matting up—begins, which is often fraught with evil consequences. In these and similar ways the evil that we would dispel—damp—is encouraged and embraced; confined, too, in its worst form, the very air these precious plants breathe reeking of the moisture which is so often fatal to them. Over and over again I have seen collections of choice alpine plants matted up in closed frames that would have been far happier—far safer, perhaps—fully exposed in plunging-beds in the open. For the choicest and most delicate of alpine plants the protection needed is protection from overhead wetness, and, this assured, the losses from other causes are usually reduced to the lowest point. To lose sight of this important fact is, in effect, to be working in the dark.

On the other hand, to remember that the choicest alpine is hardy, and doubly so if kept both dry at the root and dry overhead, is but to remember one of the essentials to longevity in the case, and which, if intelligently applied, will not merely save the life of many a plant, but will act as a sort of guide in similar circumstances in the years to come. Another fruitful source of loss or partial failure in wintering alpines is that of arranging the plants at the ground-level within the frame. Far better that the frame itself be raised and a bed of coal-ashes of some inches thickness be placed within to stand the plants on. In this way comparative root dryness is assured, the rougher coal-ash, while forming the requisite drainage, being also opposed to the harbouring of that worst of all winter pests—the slug.

Of the highest importance, too, is overhead aeration, and be the frame of lean-to character or of span-roofed pattern, I

would suggest that the lights be never closed down, even in the severest of weather. Personally—and the objection is based upon experience—I am rather opposed to the plunging of alpines in frames, having over and over again found the pest already referred to lurking beneath the rim of a pot ready to emerge like the "thief in the night," as it unmistakably is. In the drier conditions, where the plants are not plunged, the pest is forced further afield and the rough ashes are not a snug retreat.

E. H. JENKINS.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

January 6.—Société Français d'Horticole de Londres, Meeting.

January 9.—Royal Horticultural Society's Meeting and Exhibition. No lecture on this date.

January 10.—East Anglian Horticultural Club Meeting.

General Index to this Volume.—With this issue, which completes the present volume, we are, as usual, presenting a general index, together with title-page suitable for binding the loose numbers. Our next issue, as already announced, will be a specially enlarged one, and will contain an almanack giving the dates of the principal horticultural events for 1912.

An Arabis for winter effect.—Of the two variegated-leaved forms of the ordinary Arabis albida, that with golden variegation is considerably the brighter for winter, and nice plants of this variety are very effective in the rock or wall garden at this season. There is a warmth about this one which is absent from the Arabis with silver variegation, pretty though the latter undoubtedly is. No rain seems to dim its brightness, and it is highly useful.

A winter-flowering Heath. — Those who are on the look-out for a low-growing hardy plant to blossom throughout winter and early spring cannot do better than select Erica mediterranea hybrida, for from the time the earlier blossoms open in November until the later ones fade in May, it may be said to be continuously in bloom. Even in the event of a sharp snap of frosty weather being experienced, the flowers are not seriously injured, while those in the bud stage escape entirely. The free-flowering qualities of the plant are inherited from its parents, E. carnea and E. mediterranea, for both blossom freely. Its habit is suggestive of that of both parents, for although the wide-spreading character of E. carnea is most in evidence, the stronger and taller growth of the Mediterranean Heath is also noticeable. Growing from 12 inches to 15 inches in height, it increases rapidly in width and soon covers a considerable area.

Coloured-stemmed Willows.—Grouped about the margins of a lake or stream, the yellow and red barked forms of Salix vitellina have a charming appearance in winter, for when the sun shines on them they are visible for a considerable distance, making touches of colour in an otherwise dull landscape, while near by they are doubly effective by reason of their reflection in the water. Easily grown and inexpensive, they are everybody's plants, and there is no reason why they should not be more largely planted in the woodland where wet patches occur. Once planted, the only subsequent attention needed is to cut them hard down each year towards the end of March, for it is well understood that the most brilliant colour is obtained from the bark of one year old shoots. The rods, when cut, may be made use of for binding purposes; therefore there is a useful as well as an æsthetic side to their cultivation. Cuttings inserted in the position the plantation is to occupy often answer quite as well as if rooted plants were put in.

Small Lily bulbs from Japan. – Whether an unusual drought prevailed in Japan as with us during the past summer we cannot say, but the bulbs from that country, which are now arriving here in enormous numbers, are, as a rule, smaller than usual. They are firm and well ripened, and will therefore in all probability flower well; but one cannot expect as vigorous spikes from these bulbs as from larger ones. The hot, dry weather of the last summer certainly affected the Lilies here, for, apart from the bulbs that we have taken up being small, the stems were shorter than usual, That grand outdoor Lily, Lilium tigrinum Fortunei, only grew to a height of about 4 feet instead of 7 feet to 8 feet, as it usually does.

A showy Chinese Witch Hazel.—Hamamelis mollis, a Chinese Witch Hazel, though introduced later than the American and Japanese kinds, bids fair to take the leading place in the genus so far as ornamental gardening is concerned, for it is easily the most showy species. It is one of Messrs. J. Veitch's introductions, and has been in general cultivation about fifteen years. Really good examples are not common, but in another ten years' time there will doubtless be many large bushes about the country. Its broadly oval leaves, which are covered on the under surface with a dense mass of stellate hairs, separate it at once from the other kinds, while the golden petals, instead of having the curious twisted character so familiar in the blossoms of H. arborea and other species, are straight and flat, except for the hooked ends. One great charm about the plant is the delicate Primrose fragrance of the blossoms. As a rule, it is at its best about the New Year, though it has been known to be in full bloom ten days or a fortnight earlier. H. mollis thrives in rather light but good loam, and appreciates a little peat about its roots. Although when left to its own devices it assumes more or less of a bushy habit, a little attention to pruning turns it into a small tree.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Awards for seedling Roses.—In your issue of December 2, the Rev. J. H. Pemberton makes the position of the National Rose Society quite clear so far as awards to seedling Roses are concerned. I agree with Mr. Pemberton that criticism is valuable in proportion to knowledge of the subject criticised, and I look upon him as one writing with authority, and consequently his remarks may be treated *ex cathedrâ*. The result of such a communication, emanating as it does from the president of the National Rose Society, presents a strong case for a revisal of the existing rules regarding awards to new varieties, and simply proves the present methods to be not only unreliable, but absurd. Rose-growers, especially amateurs, will be grateful to the president for his candid admission that a gold medal awarded by the society to a new variety does not necessarily stamp it as the best, or one of the best, of the year in which it is shown. I take it that some of our raisers will be equally glad to have Mr. Pemberton's statement. So far as the Rose-growing public are concerned, it is my experience that they do look upon a gold medal Rose as the best, or one of the best if there be more awards, of the year. After what Mr. Pemberton tells us, the case for trials of new Roses is immensely strengthened.—GEORGE M. TAYLOR, *Mid-Lothian*.

The depth to plant fruit trees.—In "Fruit Farming for Profit," Mr. George Bunyard states that Apples on Paradise stocks "should always have the junction of the stock and scion 3 inches below the surface." In the "One and All" pamphlet on Fruit, Mr. W. Iggulden says, "If the short portion of the latter stock"—*i.e.*, the English Paradise—"below the point where it was worked is buried at planting-time, it readily emits roots and the tree is thereby strengthened." On the other hand, Messrs. Merryweather and Sons say, "The old soil mark can generally be seen on the stem; do not cover it again; in fact, plant as shallow as you can to cover the roots." The same advice is given by the first-prize essayist, on page 330, Vol. LXVIII. of THE GARDEN, who says, "Every care should be taken to see that the original ground line—always so distinctly marked on all trees—is exactly on the surface when operations are finished." Taking the height for grafting, namely, 4 inches, advised by Mr. Walter P. Wright, as about the standard, then, if we plant as Mr. Bunyard advises, the roots are exactly 7 inches too deep according to the other authorities I have mentioned. I have planted a large number of Apples on Paradise recently, and some few were planted in accordance with Mr. Bunyard's advice, but the large majority have the stock on the surface or exposed a couple of inches. If convinced that Mr. Bunyard's advice is correct, I could easily cover the roots to such a height as to bury the point of union of stock and scion. The subject appears to be one on which some difference of opinion exists, and I do not remember seeing it ventilated in the last few years in the columns of THE GARDEN.—JUVENIS.

Raising Daffodils from seed. — In reference to the correspondence a short time since as to the seed-pods damping or drying off, I received the following communication from one of our leading Narcissus hybridisers, and I have his leave to send it on to you: "There is, however, one partial answer at hand to that question about Narcissi setting seed and then damping or drying off. In very wet weather good pods will really damp off, and there are specific fungi which attack the pods under such conditions. The natural home of the Narcissus—to lump it altogether broadly—is in a climate where a short spell of moisture is followed, in normal seasons, by dry sun-heat to ripen the pod. But (and this is the main answer, I think) 'false fertilisation' obtains largely in Narcissus. It is well known that flowers are capable of having the organs irritated by pollen sufficiently to swell up the pods or even the ovules and give the *appearance* only of good seed production. I have had varieties of my own raising which will do this regularly without ever yielding a seed. And probably you will have noticed how some, *e.g.*, Princess Mary, will give a range of pods from those yielding a

dozen seeds to those with only one, and some none at all. Even in good seasons a great proportion of the failures are due to this, and when you get a bad season to boot, the breakdown is easier to understand. This irritation and 'false pregnancy' are very curious. Pollen of one genus will produce it on another genus, or even another family, as if, *e.g.*, you put Daffodil pollen on a Magnolia flower and made a pod swell up." I think the above, coming from an "old hand," will be interesting to your readers.—C. LEMESLE ADAMS.

Colletia cruciata.—I noticed Mr. Giffard's letter in your issue for November 25 on the above subject. Perhaps it may be of interest if I mention that I saw this plant in bloom in a garden on November 10 at St. Agnes, Cornwall. It was situated in a sheltered position.—F. N. ADKIN. [On page 605 of our issue for December 16 will be found an illustration of this interesting shrub.—ED.]

The value of ashes in winter.—The true worth of coal-ashes does not seem to be realised even by professional gardeners; and certainly those less experienced do not understand their saving powers. Should ashes have to be bought, it would not entail much expense; but usually, with a little forethought, enough can be saved from most houses for ordinary purposes. The saving of the lives of many precious plants can be effected by the placing of a few handfuls in and around their crowns. They will be saved from two possible evils by so doing—from rotting away and from being eaten by slugs. The most precious plants can have their crowns well covered, while those with delicate stems, which are liable to decay, can be well surrounded with the ashes. I have found them invaluable for keeping expensive Delphiniums, choice old Carnation plants, Phloxes, Crinums, Lupines, Hollyhocks and outdoor Fuchsias. Of course, there are many others; in fact, any plant you think may be a prey to the slug or the wet weather. The ashes are easily removed in the spring, when danger is past.—C. TURNER.

Hybrid Freesias in Queensland.—In your issue of July 8 there appeared an article with a coloured plate on the Tubergen Freesias. Now in the "Down Under," as the Britisher at home is apt to speak of Australasia, we sometimes do a little in evolving new plants. But we are away from the centre of things, and often do not get the recognition that we would under more favourable circumstances. In Queensland, from which I write, we have no leisured moneyed class who take pleasure in stimulating horticulture, and our amateurs are all workers. With some fellow-officers of our Queensland Horticultural Society I had the pleasure to receive an invitation to inspect the hybrid Freesias on which one of these nurserymen, Mr. Summerlin, had been working for four years. Starting with the old refracta alba and Leichtlinii, and crossing with the pink Armstrong variety, he has developed flowers of a bolder type, grander habit, and colours of every shade of heliotrope and rose through orange and yellow to pure white. We saw spikes over two feet in height, with from twelve to fifteen blooms on a spike. There were few selfs, but every shade and variation of hue in the range of colour indicated. There were no pronounced blues, but an approximation towards it in tints of violet, purplish rose and lavender. As mentioned in your article on the Tubergen Freesias, the distinctive perfume of the old refracta had been preserved.—G. W., *Queensland.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

EARLY POT VINES.—The Vines which were started at the beginning of last month will now be breaking into growth, and it will be safe to increase the temperature a few degrees. When it can be seen that all the buds are breaking freely into growth, secure the Vines to their permanent position on the trellis. Water must be applied to the roots with care, and when it is given make sure that sufficient is applied to soak right through the ball of soil. The temperature of the water should not be less than the temperature of the house. These pot Vines will require a good deal of assistance from stimulants, which may be given in the form of liquid farmyard manure. If the heat of the plunging material declines too low, mix some fresh litter with it, but take care not to use litter which has not been properly prepared.

Syringing.—The Vines may still be syringed before noon in bright weather, but this may be discontinued when the Vines are growing freely. The atmosphere must be kept moist by sprinkling the walls and paths at intervals during the day. Open the top ventilators a little for an hour or so in the morning when the sun is full on the house; but at this time of year the best use must be made of the solar heat, and it will do no harm to close the house before noon.

Late Grapes.—Any Grapes which are still hanging on the Vines should be cut and placed in a cool, dry room. The Vines can then receive attention in regard to watering. It is good practice to thoroughly soak the inside borders with clear water; then follow this with another watering with diluted liquid manure. If the borders are in need of renovating, the sooner this work is carried out the better. The pruning of all Vines should be done as soon as possible.

Young Vines.—If it is intended planting young Vines in the spring, they should be procured at once, so that they can be cut back. We cut back all planting Vines to three or four eyes. Cover the surface of the cut with styptic and place the Vines in a cold house. Vines which were planted last spring must be cut back now. There is nothing gained by leaving the canes too long the first season after planting, more especially if the Vines have not made satisfactory progress; 2 feet or 3 feet will be ample in any case, and if the grower is anxious to lay a good permanent foundation for his Vines, he must not be tempted to overcrop them when young.

KITCHEN GARDEN.

French Beans.—This vegetable being so much appreciated, an effort should be made to extend its season as long as possible. A batch may be sown now in 7-inch or 8-inch pots, using a compost of loam and manure from an old spent Mushroom-bed. The pots may be placed in a Cucumber-house on a shelf near to the glass. Other batches may be sown at intervals of a fortnight. The new Bean Belfast is excellent for this purpose. It comes in very quickly and is an enormous cropper.

Royal Gardens, Windsor. E. HARRISS.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

THE present may be admitted as the quiet season in the flower garden and pleasure grounds, but each week calls for some attention in maintaining walks and lawns in a tidy condition. The latter will always be found to have some wind-blown leaves collected in sheltered corners, which should be removed periodically. The roller may also be used with good effect whenever the weather conditions will allow.

Box Edgings.—The relaying of Boxwood can be safely carried out during mild, open weather. Where the dwarf variety does not succeed, the propagation of Tree Box may be adopted. It is not necessary to relay this variety of Boxwood so often as might be expected in order to keep it dwarf, for if given ordinary attention it will remain within due bounds as long as, if not for a much longer period than, the dwarf variety. My attention was first drawn to this fact by a very capable gardener in Perthshire, who pointed with pride to a walk bordered on each side by perfect lines of tree Boxwood, which he had planted thirty-seven years before and which had never been disturbed, and yet did not exceed 6 inches in height.

Construction of Garden Paths.—Every effort should be made to have this work done thoroughly, for no amount of after-attention will convert a badly-made road into a good one. Main walks that may be used for both vehicles and pedestrians may range from 10 feet to 18 feet wide, and smaller walks from 5 feet to 8 feet in width. Unless the soil is shallow and resting on gravel, it should be excavated to the depth of from 9 inches to 18 inches, according to the traffic expected. Two-thirds of this should be filled with good hard material and finished with smaller grit or gravel, making the whole firm and smooth by the aid of a heavy roller. The centre of either walks or roads should be made slightly higher than the sides, which will induce the surface water to flow towards the sides, where catch-pits connecting with the drains must be constructed at suitable intervals.

The Rock Garden.—This should also receive a careful examination from time to time, as leaves collect readily in nooks and crannies, where their presence may soon destroy some tiny gem which withstands the severest of frosts or heavy falls of snow, but which resents a covering of decaying vegetation. After hard frosts, too, some shallow-rooting subjects may be found partly raised from their bed; these should be gently replaced and made firm before another spell of frost is experienced. After heavy falls of snow the branches of ornamental evergreens and conifers should be shaken to relieve the weight, or broken limbs and disfigurement of the trees will ensue.

Cuttings.—The present is also a suitable time for putting in cuttings of Holly, Laurel, Bay, Elder, Privet and Cupressus. These root best when the cuttings are made with a heel and placed to root in a frame or pit from which frost is excluded. As most of these are slow to strike, they will require to be left undisturbed for a year.

Carnations.—The beds planted in autumn should be examined occasionally to see that none of the plants is loose in the ground, and effective measures must be taken to preserve them against the intrusion of mice, rabbits or other vermin.

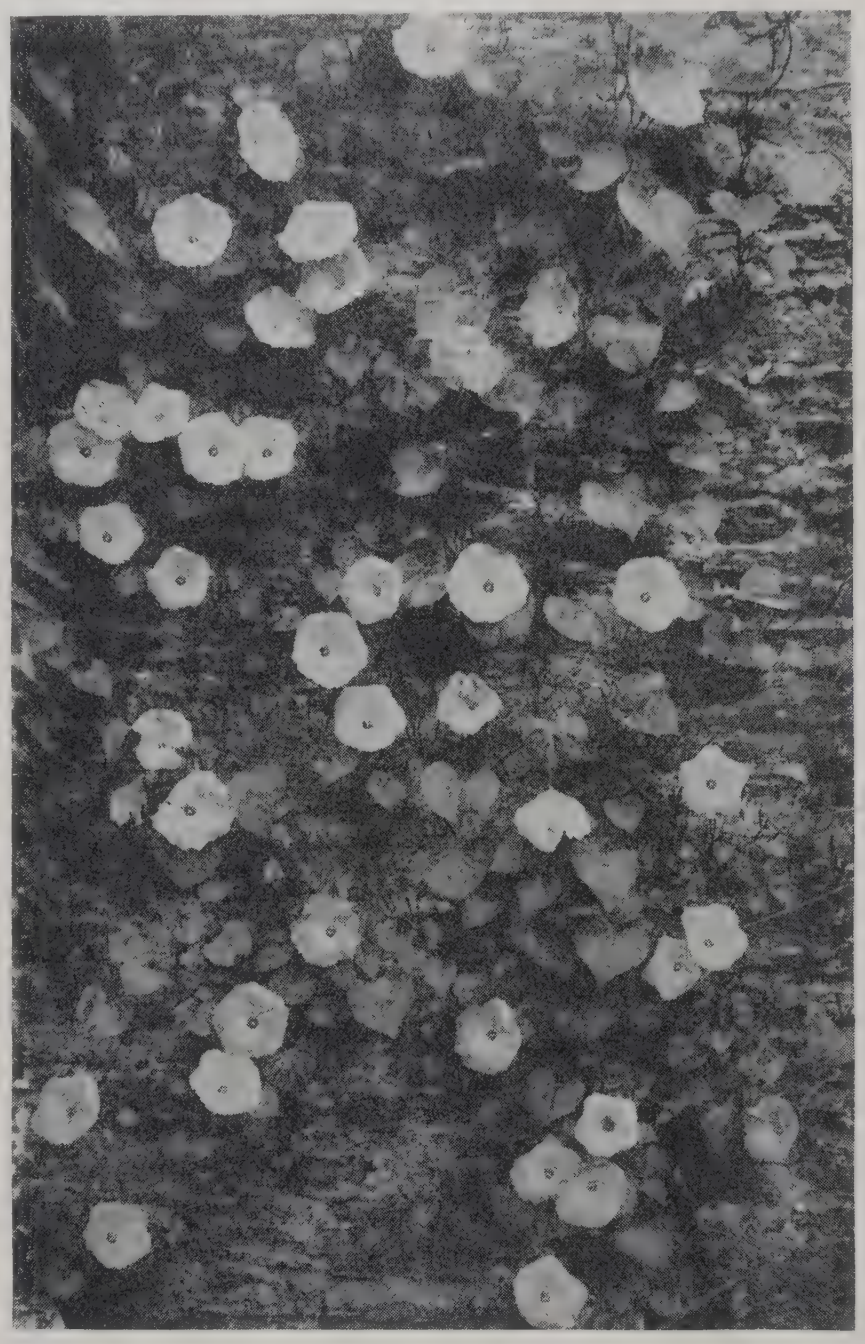
THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle.

THE FLOWER GARDEN.

IPOMŒA RUBRO-CŒRULEA.

THIS is one of the most beautiful of all annual climbers, and one of the easiest to manage. It is probably most generally grown under glass, as it is a native of Southern Mexico, but it will succeed admirably in the open during the summer. Half-a-dozen plants made a glorious show against a south-west wall last year, all of them branching freely and covering the whole surface of the wall with their growths, while they flowered profusely, forty or fifty blossoms being often expanded in one morning, and on one occasion seventy-two open flowers met the gaze. They were the admiration of every visitor.

A writer lately advocated sowing the seed in February, which, if the plants are to be grown under glass, is doubtless a good time; but if they are to be planted in the open, it is far too early, for I never like to put this tender plant out of doors until the end of June. To manage this, seeds are sown in heat in May and grown on, when by the close of June they will be about two feet in height and have flower-buds already set. The soil close to the wall is then taken out to a depth of 8 inches and a width of 1 foot. This is then filled in with a compost of one-half well-rotted Mushroom-bed manure and one-half leaf-mould and fibrous loam. Sufficient room is left to receive the balls of earth when the pots are turned out, and this operation is conducted very carefully, so that the balls may not be broken. The soil is then pressed lightly around the balls and a good watering given. Every evening, if rain has not fallen during the day, the plants are copiously syringed and watered. They responded so readily to their treatment that the majority attained a height of over ten feet and produced a fresh crop of blossoms daily for a period of over three months. Wires are strained perpendicularly about two inches distant from the wall, and up these the shoots of the Ipomœas climb with astonishing rapidity.



AN INTERESTING ANNUAL CLIMBER: IPOMŒA RUBRO-CŒRULEA.

The best time to see the flowers is on a sunny morning, for they commence to fade soon after noon, assuming a reddish tint, which is probably responsible for their title **rubro-cœrulea**, for nothing is more misleading than to apply any name suggesting red to the flower when in the zenith of its beauty, as it is then of a lovely clear pale blue, a trifle deeper than Cambridge blue. In size the blossoms are fully 4 inches in diameter, and when four or five dozen blooms are open at the same time, the picture presented will linger long in the memory. The first flowers on my plants opened early in July, when the shoots were rapidly mounting the wires, and the last blossoms expanded in the third week in September, though there were hundreds of unopened buds that did not open on account of the coming of colder weather. It has always been a matter of surprise to me that more use is not made of this beautiful plant in the open air, since its culture is exceedingly simple, and its large pale blue flowers are of a delightful colour and are quite unique in the garden. As a wall plant it has few equals, and it is one of the prettiest of plants for covering trellises or pillars in favoured places. A writer from the United States said a few years ago, speaking of this Convolvulus: "This grows luxuriantly in warm, sunny places out of doors, but I do not think your English summers are long enough for it to bloom in the outside garden, and therefore you had better treat it as an indoor vine." How mistaken he was the accompanying illustration shows.

South Devon. WYNDHAM FITZHERBERT.

A BEAUTIFUL SPECIES OF TULIP.

(TULIPA PRIMULINA.)

THE illustration of this Tulip on page 629 represents a cluster in the rock garden at Myddelton House, Waltham Cross. It will at once be seen that the plant looks happy and established. Among these small species of Tulips it is well to know that there are some that seem to do well anywhere, like primulina and dasystemon, while there are others which are not so easily suited, like Lownei. I have had primulina growing in sandy soil, in a position where it gets no morning sun, for three or four years without any attention whatever, and it has done well. I think the shade is rather a mistake, as I find that the flowers never open quite wide unless the sun is actually shining upon them—its heat alone is not sufficient; there must be the direct contact, as it were, with its rays. I see the colour is generally described as primrose; but if so, it is of a very pale shade indeed. I would rather call it a creamy white with a yellowish centre. It grows 9 inches to 12 inches in height, and is admirably adapted for snug corners in the rock garden. It is a native of Algeria, where it was discovered by Mr. Elwes in 1882. The unexpanded flowers have a decided pinkish tinge on their exterior. JOSEPH JACOB.

A RARE LILY.

(LILIUM NEILGHERRENSE.)

FROM twenty-five to thirty years ago this grand Lily used to be frequently met with in flower during the late autumn and early winter months. That was in the days before the retarding of bulbs was carried out, and the only other Lily blooms at that season were occasionally some secondary flowers of Lilium longiflorum Harrisii. The Neilgherry Lily would, however, now appear to have become very scarce, for I have not seen it once this year, and have searched in vain for it in several lists. Its scarcity is to be accounted for by the fact that it never proved amenable to cultivation, for though freshly-imported bulbs flowered freely the first year, and occasionally the second, it was rarely that any made their appearance afterwards. The liberal supplies which we used to obtain in the eighties were, in some cases at least, sent home by officers stationed in the Neilgherry Hills, where they were collected in a state of nature, for attempts to cultivate this Lily even in its native country met with very qualified success. It reaches a height of 2 feet to 3 feet, the leaves being shorter, stouter and broader in proportion to their length than most others of the longiflorum section. The flowers are long, funnel-shaped, massive in texture, and generally more or less of a creamy tint, but in this respect they vary somewhat, as they also do in the length and size of the tube, some being narrower than others. A peculiar aromatic fragrance distinguishes the flowers of this species from those of any other Lily. H. P.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

CYPRIPEDIUM ROYAL SOVEREIGN.—A remarkably beautiful variety in which the C. leeanum influence is perhaps the most pronounced. Sepals and petals are coloured mahogany brown; dorsal sepal broad, finely formed and heavily spotted, and peppered with crimson on a whitish ground. Exhibited by Messrs. Sander and Sons, St. Albans.

AWARDS OF MERIT.

Buddleia officinalis.—A fragrant and pretty plant whose pyramidal inflorescences of pinkish white, orange-eyed flowers extend from a woolly, somewhat Sage-like leafage. The species is a recent introduction from China, where it was

collected by Mr. E. H. Wilson. The plant appears akin to B. asiaticus, but with a more pronounced orange-coloured eye. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Odontoglossum crispum Alcyone.—A showy and beautiful variety with much rosy crimson colouring on the sepals and petals. The arching raceme carried fourteen flowers, the sepals and petals irregularly blotched and spotted with red. The flowers are of a showy and handsome character. Exhibited by J. Gurney Fowler, Esq., Glebelands, Woodford.

Cypripedium Lord Wolmer Westonbirt Variety.—Parentage: C. leeanum × C. Euryades leopardianum. The sepals are waved and coloured brown; the dorsal sepal has a white ground, heavily spotted with chocolate. It is a sturdy and dwarf-growing plant of considerable beauty and merit. Exhibited by Lieut.-Colonel Sir George Holford, Westonbirt.

Cypripedium Actæus Durbar.—This variety is remarkable for its breadth of lip and dorsal sepal, the latter forming as it were a hood over the lip. The dorsal sepal has a green-coloured ground, blotched with brown and broadly margined with white. Exhibited by Messrs. Charlesworth and Co., Hayward's Heath.

Cypripedium insigne Gatton Park Variety (C. insigne magnificum × C. Harefield Hall).—A bold, prepossessing variety of great stature and vigour,. The dorsal sepal is broadly margined with white and heavily spotted with chocolate. From Sir Jeremiah Colman, Bart.

Lælio-Cattleya Nella (L.-C. dominiana langleyensis × C. labiata).—The sepals and petals are of uniform rosy purple hue, the handsomely-formed lip of a rich crimson velvet shade. A striking variety of distinction and merit. From Messrs. James Veitch and Sons, Ltd.

Although the usual fortnightly exhibition of the Royal Horticultural Society was not held on Tuesday, December 19, the respective committees met on that date and made awards to the foregoing plants.



A CLUSTER OF TULIPA PRIMULINA IN THE ROCK GARDEN.

ROCK GARDEN.

MY FIRST ALPINE PINKS.

LIKE most other admirers of alpine flowers, I early became enamoured of the alpine Pinks, and the few which came my way in my earlier days were highly prized. Possibly a few notes about them and their ways may be interesting and, at the same time, useful to others who are thinking of cultivating some of these Dianthuses—true "flowers of the gods," and very charming things.

First must come the native Dianthus cæsius, the Cheddar Pink, which almost every amateur alpine-grower possesses among his first flowers A goodly number find it convenient to purchase a selection of so many flowers for a certain sum, and, provided the dealer is a man of repute and principle, this is as good a way for a beginner as any, and far cheaper than buying the plants singly. Of course, one is saddled with some plants one does not want, but that is more than compensated for in other ways. I think a fair proportion of the dealers would include Dianthus cæsius in a collection of, say, fifty plants for a beginner. And I do not know any more useful plant of its class than this native of the Cheddar cliffs. As purchased from the nurseries it is variable, but one is fairly certain that any form will be worth having, with its prettily fringed, fragrant, pale pink flowers and its spiny, glaucous leaves. This Cheddar Pink is very easily grown, and will do quite well without any lime in the soil, although it likes some calcareous material. I found it did much better in a sunny place than in any other.

The next Pinks I got were some of the single varieties of Dianthus plumarius, the garden Pink, of which there are a number of lovely seedling varieties with single flowers. I think my first one was called Beauty, and well named it was, with its white flowers so well set off by the maroon zone in the centre. Another fine one I had was called Dove, and it had charming white flowers. Duke of Fife also came to me from a friend, and it has a darker zone than Beauty. From these I have raised several nice seedlings, some with rose and pink flowers. These Pinks are perhaps a little too vigorous for a small rock garden, but they are very fine. Then a good alpine-grower gave me a little plant of Dianthus Freynii, a dainty little thing which one would hardly think could be a Pink when looked at alongside Beauty. It has close-growing little tufts of sharp green leaves and tiny rose coloured flowers, only 1 inch, or 2 inches above the cushion-like plant. I found this did best in sandy gritty soil in full sun. Dianthus deltoides, the Maiden Pink, next came my way, and although it is a rather common plant (by "common" I do not mean to imply any depreciation of its beauty), it is one which I much appreciated. I had first the type, which has rose flowers with a crimson ring in the centre on a plant of about 6 inches high and of trailing habit. Then, so pleased was I with this that I bought the white variety, called Dianthus deltoides albus, which has lovely little flowers of white, with a central ring of crimson. I formed a lasting admiration for this native plant, whose deep green leaves and pretty flowers looked so pretty on the rock garden, where both varieties grew well in sun or in partial shade without heeding apparently whether the place was very dry or had a good supply of moisture.

In what was for me a happy moment I then purchased for a few pence the lovely Dianthus neglectus, and I think no plant of its kind ever gave me greater pleasure. It is only 4 inches or 5 inches high, and my plant, which was much better than a good many I have seen since, was of a kind of buff on the backs of the petals and of a lovely cherry colour, or, rather, cherry carmine. I grew this best on a level bit of the rock garden in loam with a good deal of sand and grit, and in full sun, where I found that it likes plenty of water in spring and summer. It is very beautiful, but it seems to have been largely raised from seeds since then, and some of the plants now in the hands of the trade are not so good. Of course, after these ventures I had to try my skill with Dianthus alpinus, and after some trouble I succeeded with it by growing it on the same lines as neglectus. Most of these Pinks appear to have a decided preference for a good deal of water in dry times in spring and summer, and also to require to be well top-dressed in spring and autumn. Alpinus is a lovely flower, with charming deep rose flowers raised above nice green leaves, the whole not being more than 4 inches high. I do not care so much for the white variety of Dianthus alpinus, which some seem to like so much now.

Not knowing that it was not a perennial, I next secured a plant of the fine fringed Pink called Dianthus superbus, whose sweet-scented, fringed flowers of a nice rose colour gave me delight. But this generally died after flowering, so that I had to save and sow seeds every year. This Pink, like a goodly number of others I have grown since, likes a good deal of water during the growing and flowering period. Accompanied by sunshine this makes it finer in every way. It grows about 1 foot high and looks well on the border, besides being fine on the rockery.

The last of the Pinks I shall speak of now among those on which I tried my 'prentice hand was

Dianthus fragrans, which is a really pretty little white Pink, with small, daintily-fringed flowers, which, moreover, are sweetly scented. It is said to be 1 foot high, but my plants were always less. I grew it then, and still grow it, in poor, rather hard, dry, stony soil, and it seems to like this treatment. It will stand drought much better than some of the others, and appears really to enjoy it. This fragrant Pink looks best when trailing over a dark stone, its glaucous leaves and white flowers showing to advantage there. Such are some of my earliest attempts at the cultivation of Rock Pinks, flowers which the more I know them are the more admired.

ALPINIST.

HOW TO MAKE NATURAL ROCK STEPS.

HOWEVER beautiful and appropriate well-proportioned steps of dressed stone may be in connection with other architectural features, there are many



A PATHWAY OF ROCKS IN THE GARDENS AT NYMANS, HANDCROSS, SUSSEX.

places where they are equally necessary for utility, but utterly out of place as regards their surroundings. This difficulty can be overcome by making steps of large, unhewn stones with partially flat upper surfaces. Each step may consist of one or more stones, placed so as to give a secure foothold, but at the same time to imitate, as far as possible, rocks in their natural stratification laid bare by the action of water. The illusion is increased by placing a few stones at the sides, suggesting that the bed of rock continues far beneath the surface. By giving the steps a turn either to the right or left, their length is increased and excessive steepness avoided. A common mistake is to make the excavation in which the steps are placed far too narrow, imparting a mean and paltry appearance. The width shown in the illustration is considerable, allowing space for an effective group at the side without impinging too closely on the pathway.

J. COMBER.

THE ROSE GARDEN.

SOME BEAUTIFUL TEA ROSES.

IN penning an appreciative note upon Tea Roses, I am in no way desirous of depreciating the Hybrid Teas. But these latter receive praise from everyone, and I fear the lovely Teas are apt to become overlooked.

I have before me as I write a spray of Messrs. A. Dickson and Sons' delightful variety Meta, a most glorious Rose, quaint in form, resembling a Cactus Dahlia, in colouring sublime, a sort of crushed strawberry and cream, and the fragrance is delicious. Strangely, this Rose will bear sprays of quite distinct colouring on the same bush. In mid-September we had some of the lovely varieties coming into bloom that were overlooked in the hot days—such sorts as G. Nabonnand, Peace, Mme. Hoste, Papa Gontier, Rainbow, Marie van Houtte, &c.—and they all threw up such delightful big sprays of bloom as to be highly decorative. Our old friend Mme. Lambard gets almost crowded out now, but I can remember its introduction and how people went almost crazy about it. There are some glorious reddish shades among the Tea-scented Roses, one especially, Comtesse Festétics Hamilton, being most charming, and one very little below it in value is General Gallieni. These two, in my opinion, are far superior to General Schablikine, a Rose much lauded by the late Dean Hole. In a very large Rose garden I visited this summer, Comtesse F. Hamilton was one of the most beautiful varieties in the garden, although the collection contained most of the popular sorts. Fashion favours the Hybrid Teas, and thus the true Teas become somewhat despised. They have the reputation of being tender, which is a fallacy if we take the class as a whole, although it may apply to a few, such as Niphetos and Mme. de Watteville. But I would urge my readers to grow more of the true Teas, not forgetting the China Teas, such as Comtesse du Cayla, Aurore and Queen Mab, which are in reality Teas, and only grouped as Chinas because the flowers are somewhat small. There are numbers of most delightful sorts rarely heard of now that only need to be grown to be loved.

P.

POLYANTHA ROSES.

THROUGHOUT the summer months these delightful little Roses provide us with a wonderful profusion of bloom, and give to the garden quite a charm. It is really marvellous how this group has developed, for it does not seem long ago since M. Guillot gave us the first variety, Paquerette, and yet it is some twenty-six years since it was introduced. But to-day we have quite a large variety, as many as fifty sorts being available. As with other decorative Roses, there are a few that stand out remarkably distinct and useful, and that will be grown in large quantities for many years to come, even though new-comers may seem to be improvements. Rightly treated, these little Pet Roses, as they are called, are a perfect mass of bloom the best part of the summer and autumn, and are formidable rivals to bedding plants; in fact, they surpass them from an economical point of view, seeing that when once established they are good for several years. To keep up the continuity of bloom it is necessary that the plants be kept growing, and the best manner of securing this is to plant in deeply-worked soil, taking care to mulch the plants during a dry spell. Spent Hops are one of the most useful articles for this purpose, and they readily absorb moisture and, moreover, retain it, although the surface Hops may appear dry. Spent Hops would be excellent mulching material for any Rose-beds, and are less unsightly than manure. If desired or found necessary, a little artificial manure may be blended with the Hops. To produce a striking effect, the plants should be put in about 12 inches apart each way. They will then almost hide the ground the first season; then if cut down to the ground-level early in April, a dwarf mass of growth is maintained. If it is desired to have good-sized bushes, the plants need but little pruning; but in this case it is best to plant them 2 feet apart each way. There is, however, not that free breaking up from the base that we get when severe pruning is adopted. These Roses make delightful pot plants for spring flowering in the conservatory. Plants that were potted up during the autumn can be gently forced the first season, providing they were kept outdoors a good time previously. Some varieties are stronger-growing than others, so that for the convenience of planters I will place the best sorts into two groups.

Group 1, *of Dwarf Growth.*—*Anna Marie de Montravel, white; Etoile de Mai, nankeen yellow; Etoile d'Or, chrome yellow; *Eugénie Lamesch, orange yellow and rose pink; *Frau Cecilie Walter, deep yellow, shading to cream; Georges Pernet, rosy peach; *Gloire des Polyantha, deep

rose; *Jessie, bright cherry red; Kleiner Alfred, red and orange; Paquerette, white; Mme. E. A. Nolte, chamois yellow; *Maman Levavasseur (Baby Dorothy), pink; Mignonette, rosy pink; Perle des Rouges, red; *Perle d'Or, nankeen yellow; and *Petite Constant, red and orange.

Group 2, *Stronger Growth.*—Aennchen Müller, deep pink; *Aschenbrödel, peach pink; *Cecile Brunner, blush, shaded pink; Katherina Zeimet, pure white; Leonie Lamesch, coppery red; Mme. N. Levavasseur (Baby Rambler), crimson, shaded purple; Marie Pavic, white, tipped rose; Martha, rose pink; *Mrs. W. H. Cutbush, bright pink; *Orleans Rose, bright red and rose pink; and Schneewitchen, white, shaded cream. All the foregoing I can recommend; but if only a few can be planted, those marked with an asterisk are the best. P.

TREES & SHRUBS.

WHY MISTLETOE IS USED AT CHRISTMAS.

(*Continued from page* 619.)

THE first part of my notes has been largely taken up with the legendary history of the Mistletoe. Not only does the Mistletoe claim a legendary or historical interest, not only is it coming before the world again for its medicinal properties, but it may well occupy the attention of the botanist as being a sort of halfway house between "Yes" and "No"; and because of its use, and because it is nice to have our own if we can get it, I venture to think that there are people who would like to grow it if they knew how. I now pass on to amplify what I hinted at about its usefulness in medicine.

Certain plants, such as the Sage, Comfrey and Mistletoe, stand out in the old herbals as being of particular value or virtue. Of the Sage it was said, "Cui moriatur homo, cui salvia crescit in horto" ("How can a man die in whose garden there grows Sage."—Old proverb), and the Comfrey has always been, as it still is in certain parts of England, a chief, if not the sole, ingredient in poultices.

For many years the efficacy of these old drugs has been made fun of, and people have pooh-poohed the idea of there being anything in them. Latterly, however, physicians have been enquiring into their constituents. In the *British Medical Journal* for December 2 last were published the results of some very interesting work by Dr. C. J. Macalister of Liverpool on the Comfrey (Symphytum). He found that the plant contained a very rare drug, allantoin, which is a well-known cell proliferant, and that it was this that gave it its value in its application to ulcers and sores. Similarly, with regard to the Mistletoe, recent research has rediscovered its value, and it is again admitted to the Pharmacopœia, and "guipsine" pills are recommended in certain cases of fits. Who knows but what there may be a revival in the fashion of this ancient plant for medicinal purposes, such as I imagine took place in the seventeenth century?

In a little book entitled "A Dissertation Concerning Mistletoe," by Sir John Colbatch, he states in the preface, "it would be highly criminal in me to let another Mistletoe-season pass without informing the World what a Treasure God Almighty has every year presented to their view; and that nobody, at least very few, have received any Benefit from it." He gives instances of wonderful cures among his own patients, and the book went through several editions.

I have dwelt on this because I would like to suggest the immense interest that a study of the medicinal values of old-time plants and herbs is capable of giving us. I always think that a man should garden not only to please his sense of sight, but also to feed his mind. In Mistletoe he sees a curious bush-like mass of "popinjay green" (Gerard) little branches covered with white viscid berries. Let anyone but know its past, and then what an added and absorbing interest there is as well.

Botanically, this plant is of interest, inasmuch as it is a parasite and yet not a true parasite. Certain parts of its food it is able to secure from the atmosphere by reason of the chlorophyll in its stem and leaves. There are, I believe, three distinct forms—Viscum album, the ordinary one; V. laxum, a sub-species with narrower leaves and a rather yellowish berry; and V. cruciatum (red-berried Mistletoe), first recognised as distinct by Clusius, who found it on Olive trees in Granada in 1576. It occurs in Spain and South and Central Palestine, and probably in Morocco (*Botanical Magazine*, t. 7828.)

In the sixteenth and seventeenth centuries people were easily pleased in garden decoration, and the Mistletoe was recommended for this purpose. Nowadays I do not suppose anyone thinks much of it from this standpoint, but there is a charm in home-grown things; hence why not try to grow our own Mistletoe? The process of inoculation is easy and interesting work. March is probably the best time, as then the berries are fully ripe. A young branch of an Apple, Pear, Thorn, or Poplar should be selected and the under side cleaned. Then squeeze a berry on to the place thus prepared. The sticky juice soon dries round the seed. At the end of a few months it will have thrown out a tiny hook, green, and turning to the bark. Months pass and nothing more is to be seen. Then the branch swells, and two years after the sowing there appears a tiny spray of leaves and the plant is an established fact. In order to have our own berries, we must be careful to see that we have both male and female plants on our trees. JOSEPH JACOB.



A FRUITING SPRAY OF THE INDIAN BEAN TREE, CATALPA BIGNONIOIDES.

THE INDIAN BEAN TREE.

(CATALPA BIGNONIOIDES.)

THE Indian Bean is doubtless known to most readers as an interesting and handsome tree. It is seen to advantage when grown as a solitary specimen on a lawn, and it is also well adapted for planting near the outskirts of the woodland garden or near to the waterside. Moreover, it is an excellent subject for the town garden. It is most ornamental in July and August, when the trees are, or should be, literally covered with trusses of white flowers speckled purple and yellow, not unlike those of the Horse Chestnut at first sight. The long fruits which give the tree its popular name of Indian Bean are formed in the summer, and remain hanging from the branches long after the leaves have fallen. We have seen many trees lately, all of which are bearing an exceptional crop of Beans. It is interesting to note that if the seeds are collected now and grown in the spring, there is every hope for them to germinate successfully. C. bignonioides is often met with in gardens under the name of C. syringæfolia. Despite the fact that it is a native of the Southern United States, it is popularly known as the Indian Bean.

CRATÆGUS CARRIEREI.

THIS is by far the most attractive Thorn we grow at the end of November and early December. On November 20, with the sun glistening on the leaves and fruits, the tree presented a perfect picture of scarlet and bronze. Scarcely a leaf had fallen from this Thorn, while most of the others were quite bare. The highly-coloured fruits were still in perfect condition; but having denuded most of the other trees of fruits which were to their liking, I noticed the blackbirds and thrushes visiting the subject of this note.

Cratægus Carrièrei is said to be a hybrid between C. mexicana and C. prunifolia, and is of French origin. The leaves are rich green in summer, changing in autumn to shining bronze. As a flowering tree of moderate size it is worthy of attention, with corymbs of showy white blossoms half an inch across and numerous pink stamens. In autumn the tree is laden with orange scarlet fruits, there being ten to fifteen, sometimes more, in a bunch. In shape they are round, perhaps a little inclined to oval, and three-quarters of an inch in diameter. The autumn beauty of the tree lasts for nearly three months. Cratæguses thrive in most soils and localities, and, being trees of only moderate dimensions, are suitable for large or small gardens. A. O.

A NEW AILANTUS.

THE ordinary Tree of Heaven (Ailantus glandulosa) is now fairly well known in gardens in this country, where it makes a stately and ornamental tree during the summer months, growing as it does at a fairly rapid pace. A new species, named Ailantus vilmoriniana, has, during the last year



A YOUNG PLANT OF AILANTUS VILMORINIANA IN THE GARDENS AT ALDENHAM HOUSE, ELSTREE.

or two, attracted considerable attention, mainly on account of the large size of its ornamental, pinnate leaves, the accompanying illustration of a young tree showing the character, though not the size of these. We are indebted to Mr. Edwin Beckett of Aldenham House Gardens, Elstree, for the photograph from which the illustration has been prepared, and for the following information relating to this particular tree: "Since the photograph was taken, the plant has made remarkable growth, and measures exactly 6 feet in height. The leaves, which are really magnificent, are produced at approximately every 2 inches of the plant's growth. These measure from 4 feet 6 inches to 5 feet in length, and produce eighteen to twenty pairs of leaflets, the largest of which are about eight inches in length by two and a-half inches wide. The midrib is a beautiful red, which contrasts strikingly with the green leaflets. The main stem is quite spinous. We have several others planted out, and each is forming a beautiful plant."

THE ROCK ROSES.

THE Rock Roses delight in a light and well-drained soil. We are sometimes at a loss for an evergreen to plant in a hot, sunny corner of the garden where the soil is poor. The Cistuses are ideal subjects for such a position, and also for the hottest and driest part of the rock garden, especially if there are plenty of stones in the soil to aid drainage. In the warmer parts of the country all the Rock Roses are perfectly hardy. They are easily cultivated in other districts providing that the soil is sandy, but during a winter of unusual severity a few of the species will succumb. During the summer months no shrubs surpass the Cistuses for the continuity with which they flower. The individual blossoms only last one day, but as each succeeding day produces more blossom, this fact often passes unnoticed. One of the best kinds is Cistus Loretii, of which an illustration is given on page 633. It is of hybrid origin, the parents being C. ladaniferus maculatus and C. monspeliensis. The plant is free-growing, with white flowers and dark maroon red spots at the base of the petals. Unfortunately, the name C. Loretii is often confused with C. cyprius. The Laurel-leaved Rock Rose (C. laurifolius), is a native of South-west Europe. It grows from 4 feet to 6 feet in height under favourable conditions. The flowers are white, 3 inches across, with a yellow blotch at the base of each petal.

THE TOWN GARDEN.

MIDWINTER GARDEN FLOWERS.—It is perhaps in the very nature of things that we prize the smaller floral treasures of the garden that come to us quite naturally, if all too sparsely, in wintertime. Hence it is that the first-appearing Snowdrop, Crocus, or Winter Aconite is noted year by year, their advent ever welcomed because heralding that richer store of beauty which must of a surety follow as day follows night. But while we await the signs of their coming it may be well to look into the garden and see what we may cull therefrom even on a midwinter day. Quite naturally THE CHRISTMAS ROSES will take first place, just as these flowers occupy a front rank position in the estimation of all lovers of hardy garden flowers. That I had something to say concerning these a week ago need not deter me from a special word now, and I do so the more particularly because it is frequently found that so many who grow Christmas Roses in the hope of having Christmas flowers are disappointed because of their non-appearing at the season indicated. The lateness or earliness in flowering—for it may be either of these, or both, if more than one sort is cultivated—is just a question of variety, and it is possible to have the flowers of these plants for weeks on end by growing the leading sorts. For example, that known as Helleborus altifolius flowers in November, while that recognised as H. angustifolius rarely attempts to expand a flower before mid-January. Between these extremes the Bath variety of the Christmas Rose (H. niger major) and H. n. scoticus appear, and these are reliable enough from mid-December to mid-January.

WINTER JESSAMINE.—This is another true winter flower, and if not usually seen in great abundance is precious by reason of the time of its flowering, and precious also in that its twigs may be plucked in the forward bud state for expanding in water a few hours hence within doors. Ungarnished by foliage at flowering-time, the leafless twigs are not admired by all. No one fails, however, to admire the rich colouring of the flowers, while to others there are both character and charm in the winter garb of this well-known plant—a certain contrast of olive green stem and golden blossom—and which has but to be realised to be the more fully appreciated. The Winter Jessamine is, therefore, in my opinion a plant not merely to be tolerated in town gardens, but a plant to be grown, as its merits justify. And having grown it *pace* Mr. Jobbing Gardener, let it alone. In other words, when shrub pruning and clipping is being done, pray miss this one in order that its blossoms may brighten the garden in the season.

WINTER HELIOTROPE.—This is the popular English name of Tussilago fragrans, a plant *not* to be tolerated in the garden border proper because of its dangerous weed-like character, but one worthy of introduction to the fringes of the shrubbery border, where it will take care of itself and in winter-time give of its club-shaped heads of fragrant flowers in fair abundance. It is of the Coltsfoot tribe, and is quite content if put in the moist or shady places of the garden.

SWEET VIOLETS IN POTS.—These are not of the garden at this season naturally so far as most English town gardens are concerned, though the owners of these latter may, by cultivating them in pots and bringing them into the greenhouse, cull many a posy during the winter season of the year. The double varieties Marie Louise and Comte de Brazza are particularly well suited to pot cultivation, and, by affording the plants a shelf position near the glass in a temperature not exceeding 45°, the welcome flowers will not long be delayed.

FINIS.—This well-known word marks the end, the conclusion not of the "Town Garden" column, but of my contribution thereto, and with the New Year comes a new author. In thanking my readers for their patience during the year, may I venture the hope that the dry-as-dust details, so essential now and then, may have been not infrequently sandwiched with some of the sweets even a town garden may contain, to its own betterment and the pleasures of its owner. S. N. N.

GARDENING FOR BEGINNERS.

HEATING GREENHOUSES AND CONSERVATORIES.

I DO not intend to refer to the fixing of boilers and pipes, but simply to the way they should be managed. The most elaborate arrangement of boiler and pipes will not avail much if the stoking of the fire is wrong. We want to obtain the maximum of heat at a minimum cost of fuel. For general use in furnaces of medium size, a mixture of coke and coal serves the purpose well. A more intense and lasting heat is obtained; and if a small quantity of slack be kept near, a shovelful put on at night, and sometimes in the day, will greatly help in maintaining that desirable steady heat over a spell of several hours. Cleanliness in the stoke-hole and a fire always kept free from dust tend to economy. Only dust and ashes of a certain size can pass between the fire-bars, and so, instead of wasting fuel, it will economise it if all such dust be got rid of several times each day, as the heat from the cleared fire will be the more intense. Furthermore, it is never safe to "bank up" a fire the ast thing at night if the bars are oked with ashes and dust. Always be ire that the back part of the fuel space is quite free, too. A flat, clear fire will give out more heat than one heaped up and almost touching the boiler near the centre. Night stoking is a very important part of the work. ten o'clock the temperature should near the maximum, because it will begin to drop directly the fire is "banked up." It is a wise plan to allow the fire to go at full draught for five minutes or so after the "banking up" has been done, so that the fire will get a good hold, as it were, on the new fuel; then, if the dampers are adjusted, there will be every reason to expect that the fire will gradually and fairly clearly burn throughout the night, thus keeping the water nicely circulating in the pipes and the temperature midway between minimum and maximum. B.



A FLOWERING SPRAY OF CISTUS LORETII, A GOOD SHRUB FOR A DRY POSITION.

PREPARING AND STACKING DECAYED MANURE.

BECAUSE it is one of the simpler operations of the garden, the preparation and stacking of decayed manure is not regarded with the importance that is due to it. Horse-manure, which is more abundant than most other animal manures, should not be dug in when it is in a fresh state. It should be applied to the ground when it is partly decomposed. Manure of this kind is best suited to soils of a clayey nature or those of a heavy loam. Cow-manure is less valuable than horse-manure; it decays more slowly and gives off very little heat. It is best suited for light and sandy soils, and assists in no mean degree in binding the smaller particles of soil together, and also has a cooling influence in the summer season. It is a common practice, where both cow-manure and horse-manure can be obtained, to mix these two manures together and allow them to decompose in this way. These two are more often used than any other animal manures, although in country gardens pig-manure, which is richer in plant foods than either of those already mentioned, may be added to the two preceding manures with advantage. These three manures, mixed together, constitute an exceedingly rich plant food. Some horse-manure is much drier than others, there being more dry straw in it than is desirable. Such strawy material should be moistened with water, which will cause a more speedy decomposition. Where the manure-heap is sufficiently far away from the dwelling-house, urine and drainings from cesspools should be thrown over the strawy material, this adding to the fertility of the manure as it decays. The disadvantage of leaving a heap of stable manure undisturbed is that it heats violently, the ammonia escapes, and the manure in the centre of the heap gets very dry and largely destitute of fertilising properties. The heap may be made up at the conclusion of a fortnight, by which time the manure will be considerably decomposed and smaller in bulk. Generally, the heap is square or oblong, and is made according to the convenience of the position it occupies. It should then be covered with a layer of ordinary garden soil and be left undisturbed for many months or even a year. By that time it should be in excellent condition and thoroughly decayed. Decayed manure prepared under the cover of sheds with open sides is dealt with under ideal conditions, and may be drawn on for supplying the necessary manure for potting soils in wet and frosty weather. D. B. CRANE.

PREPARE GROUND FOR DAHLIAS NOW.

THE beginner or the amateur who wishes to excel in the cultivation of Dahlias must not put off all preparations for doing so until the time is at hand when the actual planting must be done. He should at once select the borders in which he intends to grow the plants, and also decide as to the actual number he will finally put out. This will be a guide as to the proper amount of space he should prepare. We will suppose that a long, single row of Dahlias is the object in view. The cultivator should deeply trench a plot of ground 4 feet wide, and, if the soil be of a heavy or clayey nature, some well-rotted manure must be thoroughly incorporated with it at the time the trenching is being done. If, however, the soil is very light and sandy, the manuring must be left until later in the spring or about a month prior to the planting of the Dahlias; then the plants will be benefited by the nutriment contained in the manure. If put in earlier, while winter rains prevail, the goodness would be washed down beyond the reach of the roots. Clayey soils retain the manurial properties for a much longer time; therefore early applications may be given.

Where Dahlias are grown in a plantation, several rows abreast, the whole of the soil should be trenched and manured. These plants do not thrive freely if the soil around the roots is constantly trampled upon, so that ample room must be left between the rows to avoid treading too closely to the plants. In very dry soils it is well to plant in shallow, wide trenches. The rows ought to be 5 feet apart and the plants 3 feet asunder in the rows. Tall, gross-growing varieties should be planted at a distance of 3½ feet asunder in the rows.

At planting-time one strong stake will be required for each specimen, and later on, before the plants commence to spread, generally three more stakes will be necessary; thus for each plant the cultivator must provide four stakes altogether. During the present season the stakes ought to be prepared, so that when the busy season, during which they are required, comes along, the stakes will be available for use. Good, straight poles of undergrowth are best where they can be obtained.

To secure twelve exhibition blooms, distinct, at least eighteen varieties should be grown and for twenty-four, distinct, thirty-six varieties. SHAMROCK.

THE FRUIT GARDEN.

AMERICAN BLIGHT ON APPLE TREES.

THIS insect pest has, during recent years, increased to an enormous extent in our gardens and orchards, in many instances, no doubt, on account of so little being known about it by the average amateur. At the Northern Fruit Congress, held in November last, Mr. R. A. Harper Gray, M.A., M.Sc., of Armstrong College, Newcastle, in a lecture on this pest, gave some interesting and useful particulars about its life-history and methods of exterminating it. We quote the following :

" American blight is an example of a very common condition of our Apple trees, caused by the presence of a species of the many aphides or ' greenfly ' that are so abundant in our gardens. The familiar wool-like ' growth,' which is really a product of the woolly aphis (Schizoneura lanigera), causes the disease to be easily detected in our orchards. The woolly aphis is downy when immature, and is then of a pinkish colour, but becomes some shade of brown when full grown. It possesses a head with two antennæ, three pairs of legs, two pairs of transparent wings, and piercing and sucking mouth parts.

The life-history of this pest is exceedingly interesting. In spring the ' mother-queens ' which have been hibernating in crevices in the tree produce not eggs, but living young, which feed, grow and moult under the ' wool ' which they produce. Soon these become mature, and also produce living young aphides, and we may here point out that there may be several such generations during a single summer. It is said that some of these larvæ change into a pupal form or ' nymph,' from which winged females appear ; these may fly to other parts of the tree, or even to other trees, where they start a new colony by producing young like the wingless forms. As the cold weather approaches, a few males and *egg-laying* females have been observed to make their appearance in the colony, and the female, after laying a single egg in a crevice of the tree, dies—her dead body forming a protecting covering to the egg during winter. Then when spring comes round, the little larva appears, which soon becomes the adult ' mother-queen,' ready to start the first of the generations that are to be produced during summer.

Such is a brief account of the life-history of the woolly aphis, and, when we consider the number of aphides that may appear on a single tree, each aphis being provided with a piercing and sucking mouth, we are better able to realise the extent of the damage that can be done by such comparatively small individuals.

They are, of course, particularly injurious to young stock, into the tender bark of which they can so easily insert their tubular mouths in order to suck out the sap. The result of the many small punctures that are thus made is that the cells of the tissues are damaged, wet may get in, and the twig becomes rough and deformed owing to the abnormal canker-like growth that is set up in the soft tissues. Indeed, this swollen and deformed condition is often mistaken for canker, and it would appear that canker very often follows an attack of woolly aphis. This does not mean, of course, that the presence of the woolly aphis is essential to the spread of canker, for I have known of cases where American blight has been present without any sign of canker fungus. Still, one must admit that the wounds formed by the woolly aphis may, and do, aid the canker fungus in getting a foothold on the trees.

So far we have been referring to woolly aphis as if it confined its attention to the parts of the tree above ground, and it is because nurserymen have in past years confined their own attention to the pest only as it has appeared on the branches and twigs that there have been so many failures in the treatment of the infestations. It is extremely important, therefore, that it should be more widely known that the woolly aphis also attacks the roots as well as the parts above ground. It is due to ignorance of this fact that the pest has been introduced so often in past years with new stock. No matter how carefully nurserymen may go over their nurseries, they may still send out infected stock, simply because they are unaware of the fact that the roots are also attacked by the woolly aphis. The forms found on the parts of the tree below the ground appear to be the same as those living above it. They reproduce and develop in the same way, and suck the sap from the roots, thereby producing swellings and cracks. Migration takes place from the trunk and branches to the roots, and *vice versâ ;* but it has been noticed that the migrants from above show a preference for the trunk below the ground surface, and that on the approach of spring these return to join the aerial colonies.

The fact that this root form is evidently establishing itself successfully on the roots of Apple trees in Britain is worthy of the most serious consideration on the part of our nurserymen, as failures in treatment may be due to overlooking the presence of migrating individuals.

PREVENTION AND TREATMENT.—From what has been said it will be seen that the treatment of American blight will be satisfactory only when we get rid of the subterranean forms of the pest as well as the aerial forms. There are many washes which, if properly applied, will destroy the aerial forms, but space will not permit of the composition of these washes being set down. It should be pointed out, however, that, to be successful, the washes should be sprayed on the trees with considerable force, and that where there is much ' wool ' present, as much as possible should be removed to allow the wash to reach the insect.

Mr. Theobald, in his recent book on ' Insect Pests of Fruits,' recommends for winter use the old caustic wash or the improved Woburn wash ; while for summer, either soft soap and quassia, or a weak paraffin emulsion. Whatever wash is used, it must be applied thoroughly.

With regard to the root form in the older trees, the injection of carbon bisulphide into the ground is the only remedy as yet known—two to four ounces for each tree being the quantity used. A special form of inject is used, so that the depth of the injection is about six inches—four or more injections being made at distances of some two feet from the trunk of the tree. These injections should be carried out in dry weather before April.

Young stock should be fumigated for forty-five minutes with hydrocyanic acid gas before being planted—1oz. of sodium cyanide, 1oz. of sulphuric acid and 4oz. of water being used for every 100 cubic feet of space. We may here note that sodium cyanide is now being used instead of potassium cyanide, owing to its greater strength as compared with potassium cyanide, which often contains many impurities."

THE KITCHEN GARDEN.

SEASONABLE NOTES.

ORDERING SEEDS.—With the advent of the month of January we shall have to commence the sowing of seeds to yield plants for stocking the vegetable quarters, and the earlier amateurs can get their orders compiled and posted to their merchant the better. It is, of course, quite certain that the bulk will not be wanted until March ; but they have only to be purchased once, and when they are in the cupboard the grower knows that the instant the crucial moment comes, the sowing can be done. Those who wait for sowing-time before forwarding their orders run the risk of missing a peculiarly favourable opportunity, and it is well within the bounds of possibility that a delay of weeks may occur. The rush of orders is enormous, and they are executed in rotation, so that the early man, although he may not receive his consignment for two or three weeks, will not be worried by delays, because before the important time comes the seeds are in hand.

DIGGING AND MANURING.—These tasks usually run hand-in-hand, and upon the manner in which they are carried out largely depends the success of the crops. It is impossible to cultivate too deeply, provided that the bottom soil is left at the bottom and the top soil is left at the top. Sometimes there is only a foot or so of cultivable mould, and with that one must, perforce, be content ; but where a greater depth is available, full advantage ought to be taken of it, because the deeper the soil the longer it will hold out in periods of drought and the less likelihood there will be of waterlogging in wet weather. In manuring, the particular crop must have careful consideration. Indiscriminate applications will mean that one crop will have too much and another not enough. Plants such as Onions, for example, demand far more manurial assistance than do Carrots or Parsnips ; therefore the dressing for the former will be heavy and for the latter light. If it can be managed, the manure should always go into the second spit, as in the earlier stages the plant will find quite enough food in the top soil to keep it in steady, satisfactory progress.

PROTECTING CELERY.—Steps must be taken to protect the Celery from frosts, and also from excessive moisture finding its way down the stems to the hearts of the plants. The soil must be well firmed up to the stems, and it is occasionally advantageous to pack a little cinder ash round ; but care must be exercised in carrying this out, or some will get down and discolour the sticks. As protective material against frost, straw or dried Bracken may be utilised. When a supply has to be lifted, the straw must be removed, and instantly replaced after the requisite number of heads is secured.

BROAD BEANS.—In January there is more than a probability that we shall have a spell of open weather, when the ground is in a suitable condition for sowing seeds, and when this comes the chance must not be missed to get in some Broad Beans. The Longpod section is perfectly hardy, and the earlier the plants root, the better they will grow and crop. The situation must be thoroughly prepared by deep digging and manuring in advance, and the seeding should be in flat-bottomed drills wide enough to accommodate a double line. Place the seeds rather more closely together than would be done when sowing in March, to allow for failures ; but if all germinate and grow strongly, do not omit

to thin them out until they stand about 5 inches asunder for fruiting. The two lines should be at least 4 inches apart.

EARLY CAULIFLOWERS.—It is desirable that a sowing of these shall be made within the next four weeks. Boxes or pans can be employed, and they should be filled with a light, sandy compost. Make the surface firm and level, and distribute the seeds evenly and thinly, covering in with fine mould. Water gently, and stand the receptacles in the greenhouse or a warm frame, commencing to thin as soon as the seedlings are large enough to handle. H J.

NOTES FROM IRELAND.

WE are having very heavy rains and strong gales. Scarcely any frost is recorded; therefore winter vegetables are plentiful. Especially good are Broccoli and Celery. Parsley remains fresh and green in the open borders. One or two Veronicas are flowering on a sheltered border; also Aralia Sieboldi and Coronilla glauca. Tritomas grow and flower abundantly. We have now a large batch in an exposed position which are still showing the brilliancy of their flowers. One would imagine that the stems would be broken by the wind; such, however, is not the case. It is these pleasant surprises which repay one for labour expended and give encouragement for further efforts. The Pampas Grass is another subject which bravely holds up its feathered plumes in defiance of the winds. Some Chrysanthemums are still in flower in the borders. Last year we had Polyanthuses in flower all the winter. This year we have removed all the plants, and owing to this and the drought of summer they will be much later in throwing up their blooms. Violets are flowering in the borders, but the excessive rain causes them to damp off very quickly. Wallflowers are showing flower. Newly-planted shrubs and trees require constant attention to their supports and ties. The violence of the gales in the more exposed places is such that even the stoutest tarred twine is liable to give way. Sweet Bays, Arbutus and Skimmias are evergreen subjects which withstand the gales fairly well. Box, next to the Austrian Pine, is the hardiest evergreen we have in the grounds at present. Many of the climbing Roses on walls still retain their foliage. COLIN RUSE.

Lambay Island, Rush, County Dublin.

AUTUMN IN A KENSINGTON GARDEN.

MANY have sought the secret of the passionate love of gardening that invades and possesses so many human beings. Men and women otherwise unemotional will, where things horticultural are concerned, become warmly enthusiastic. To me it seems that gardening, to the ordinary man, is the nearest he ever gets to Creation. Poets, painters, writers, *et hoc genus omne*, each has his means of creating beauty, of expressing the good (or evil) that is in him; often the ordinary man's sole means of self-expression (if he has the good luck to be a gardener) is his garden, and only a garden seemingly has the power of bringing out qualities of artistic taste, of foresight, patience and endurance hitherto unsuspected. To talk to him may seem uninteresting; he may not be able to write two consecutive lines. If he admires or understands a picture, he is constitutionally unable to put into words what he thinks or feels. But go into his garden, and you will acknowledge that he *has* a soul, that he has an eye for colour, for form, for beauty, that he even has originality.

What can *seem* more like Creation than to put into the earth a dried-up thing like a dead brown claw, to bring to bear upon it the skill and knowledge that you have been able to acquire according to your lights (herein lies the charm), and to produce from that dead brown claw a flower of such absolute beauty as an Anemone? How *wonderful* to be able so to use your knowledge and the resources at your command that, in a given spot, at a given time, rises up a marvellous Lily, so perfect that you realise immediately your share in creating it has been but a very small one. Still, but for *you* that Lily might never have bloomed, and certainly could not have bloomed in a spot so perfectly fitted for it. If at the same time you have that genius for using beauty, which is not so common as might be thought, you have the priceless power of creating spots of loveliness wherever your fate has placed you.

GROUPING PLANTS.

This it is, then, to my mind, that charms and delights so many people, both ordinary and otherwise, and to the Londoner there is a pleasure indescribable in making his little smoky patch a perfumed delight, for he can if he will, but only with much labour and grief. That there *are* limitations to London gardening not even an enthusiast like myself will deny, but that the limits have not been approached except by the few, I can and do assert. I do not even lay claim to be one of the few, for I am still groping and struggling, experimenting and occasionally despairing. Each must, of course, decide for himself what he prefers to grow; but, if he is wise, the gardener in London will, before he begins to plant, find out when the plants he favours will flower—not too easy a matter for the beginner. This suggestion, which may seem somewhat unnecessary, was prompted by the spectacle, in a garden in Kensington which I know, of great sheaves of Lilium speciosum roseum, blooming with a perfection undreamed of by those who have had no experience of gardening in London all through September and well on into October, with the blinds of their cultivator's house tightly drawn down and not even a servant left at home to enjoy their incomparable beauty, all being away on holiday. A Londoner's holidays are usually so stereotyped, with but little variation from year to year, that he will easily be able to determine which months he will *not* be at home. Every yard of space must tell in a London garden, so use your space for something you will see and enjoy. You will find it little enough for the many lovely things that *can* be grown.

It is in the autumn that the lack of space will be most felt. Autumn plants are large and require to be massed as much as possible, always a difficulty where space is limited, unless dulness in the border at other times of the year is to be tolerated. Here will come into play the taste and resource of any gardener with a small garden, not only the Londoner, how to contrive a bright border in the autumn, as well as in the spring and summer, and to a certain degree in the winter, and that with a border 5 feet wide or less instead of 15 feet, as one would like. It seems to me we are the more in need of beauty on our return to town to compensate for much that is left behind in the country or seaside place where we have passed some happy weeks. Does it not give a spice of excitement to your return (otherwise a gloomy certainty of work and fogs) to wonder how such-and-such a plant has prospered in your absence, and whether the new Chrysanthemums selected with so much care have survived the feeble attentions of the jobbing gardener? That they *will* survive to a plant, and that they will one and all flower I can almost guarantee, whatever he does or leaves undone, so good-tempered are they and so eager to fulfil their mission in life, often a somewhat draughty one.

THE VALUE OF MICHAELMAS DAISIES.

For effect and sustained interest you will have to turn to the border Chrysanthemums and Michaelmas Daisies (perennial Asters), and that equally in the country as in London. Here you will be able to choose your plants according to which month you want them in flower, because you can have Michaelmas Daisies that flower in July, August, September, October and November. You can have them tall, medium or short, pink, blue, white and mauves of every degree of colour, from a brilliant royal purple to mauve so pale as to be almost white.

Michaelmas Daisies have endless good qualities. They come up early and look nice long before they flower. They are not in the least particular what soil you give them, or whether they are under trees or not, though they will suffer somewhat in height if given a poor soil and not much sun. Beyond tying up they look after themselves from start to finish. Their habit of starting early into growth makes them an ideal background for a brilliant Phlox or a delicate Lily or any other summer-flowering subject. These will be cut down when over, leaving the Michaelmas Daisy in sole possession, which makes the presence of the one and the loss of the other less noticed. The best way to grow them, however, to my mind (though these questions must always be decided by individual taste), is in clumps according to size and colour, taking care that all the plants in each clump shall flower at the same time. You will not require many plants, owing to simplicity in propagating. Take hold of a branch firmly and pull it out by the roots and replant wherever you wish it to be. This may be done any time between March and July. Not only will this young plant flower that year, but the year following it will be a good substantial plant and capable itself of division. Border Chrysanthemums can be treated in the same way, with the additional advantage that they can be moved from one part of the garden to another when in bud, a great advantage to the autumn gardener with a small garden.

A splendidly showy and harmonious group of late Michaelmas Daisies flowering in late September and October may be composed of Aster Novæ-Angliæ ruber at the back, a magnificent plant growing 5 feet to 6 feet high, and a warm bright crimson; two of Aster Amellus grandiflorus (the latest Aster known, which has grown here this autumn to 5 feet, but which is catalogued as 3 feet), a bright mauve; and in the front a specimen of Novæ-Angliæ W. Bowman, 4 feet high. The best way to find out how Michaelmas Daisies should be grouped according to colour is to arrange several large branches in a vase and study the effect. They are so easily moved that if a mistake in grouping has been made it can soon be put right. Other lovely Michaelmas Daisies selected from a number of new ones put in last year are Novæ-Angliæ Mrs. J. F. Rayner, crimson, 5 feet high; Novi-Belgii Calliope, light mauve, 5 feet; Aster

Amellus Top Sawyer, blue mauve, 5 feet; and Aster Lord Cadogan, clear blue mauve, 5 feet. All of these are late Asters, the reason being, in my own case, that I am away in September, and arranged for myself a feast of colour for my return which surpassed my expectations. Others may also arrange their Asters to suit their own requirements. As I have pointed out, Asters may be had in bloom from July to the end of October, and Aster Amellus grandiflorus is said to bloom up to Christmas, though my own plant was over before November 1, having bloomed magnificently.

BORDER CHRYSANTHEMUMS.

My Chrysanthemums have flowered very well this year. The majority of them are grown under an Almond tree, which has greedy and all-pervading roots; but they are as full of flower there as in the better spots in my garden, and only two out of a fair number of plants have failed to flower. Some new ones put in last spring and flowering well, though the plants are not large yet, are Strathmeath (Pompon), 2 feet high, which begins to flower at the end of July and continues until October—it has small, light pink flowers, is very profuse, and good for the front of a border; Ryecroft Crimson (Japanese), brick red crimson, 4 feet high, October; Crimson Queen (Japanese), terra-cotta, 4 feet, October; Ryecroft Glory (Japanese), yellow, 3 feet, October; Nina Blick (Japanese), crimson bronze, 4 feet, October; Beauty (Japanese), salmon, shaded red, very pretty, 4 feet, October; and Rosy Morn, soft apricot pink, 5 feet to 6 feet, October. These, like the Asters, happen to be chosen to suit my own requirements, bright flowers in the border in October being to me particularly attractive; but I see no reason, since these were chosen at random from a catalogue, why any others should not do equally well. I do not recommend the very early Chrysanthemums that begin to flower in July. The blooms get scorched as they come out, and the few that I have only began to do well when the colder weather sets in, and are in November a mass of bloom.

PLANTS FOR BAD POSITIONS.

If you have a particularly fractious corner in your garden where nothing hitherto has succeeded, try there some Golden Rod (Solidago). It is a very handsome, showy plant growing 6 feet high, and is almost too well known to be described, though, poor Cockney that I am, I had never seen it till I came here and found two sorts growing in two magnificent clumps. These, after flowering, the one at the end of August and the other towards the middle of September—seeded in beautiful feathery spikes, which have great beauty of their own and last for weeks. The two that I have I have identified, after much delving in gardening dictionaries, as Solidago Shortii (which Mr. William Robinson describes in his "English Flower Garden" as the best of the tall kinds) and S. Gattingeri. As their name implies, they are yellow, and the various kinds bloom from July to October. October is the time to plant them, but it is still not too late. They are the better for being divided every three years.

This, then, so far, is all that I have tried of autumn plants in my little London garden, and, alas! almost all I have room for. The pleasure I have derived from them is immense; and it is in the hope of passing on the same pleasure to others with gardens in London that I have ventured to write this article.

HELEN R. SHARPE.

23, Pembroke Road, Kensington.

CACTUS CULTURE FOR AMATEURS.

THERE is one charm which, above all others, should commend Cactus culture to the amateur gardener. To the interests and pleasures of gardening it adds the delights of collecting. The Cactus enthusiast is always on the look-out for new varieties, and with each specimen added to his collection, interest in his hobby increases. Once a gardener becomes possessed of a few Cacti, he almost inevitably develops into a collector, provided he discovers facilities for procuring new specimens. Such being the case, it is remarkable that so few collectors of Cacti are found among amateur gardeners. Probably this is due to lack of knowledge. Many seem to think that these curious plants are expensive and difficult to procure. Such, however, is not the case. For a shilling or two a quite respectable beginning can be made. The writer's first acquaintance with Cacti began some five or six years ago when he gave sixpence for a small Echinopsis in Covent Garden Market. This he soon followed up by the purchase of a dozen Phyllocactus cuttings (1s., post free), of which he succeeded in rooting nine. These are now fine big plants, giving lovely blooms each year. Later on, in a reckless moment he sent 2s. 6d. to an advertiser, receiving in return quite a varied lot, fifteen plants in all, embracing Mammillaria, Echinopsis, Mesembryanthemums and Opuntias. Thus, for less than five shillings he was fairly launched, and during succeeding years he has, by correspondence with other enthusiasts, amateur and "trade," gradually added to his collection until he has over one hundred and seventy-five different varieties of Cacti and succulents. This, it is true, is by no means a large collection, but it must be borne in mind that its owner has but a small back garden in a London suburb, with a small greenhouse, and he has spent very little money on his plants.

Cactus culture need not be an expensive hobby, provided the collector is content with small specimens to begin with. It is, besides, much better to purchase small plants. In addition to being cheap, one finds endless interest in watching their growth. Every gardener can appreciate, too, the pleasure of being able to say, "I grew that myself from a cutting—or an offset," as the case may be. Expense, therefore, need debar no one from the joys of Cactus culture. Nor as regards accommodation are Cacti exacting. Although a greenhouse is a great advantage, it is not an absolute necessity. Given a sunny window, a few plants could be easily and successfully grown. The chief care necessary is to protect them from frost and moisture in winter. Many Cacti, especially the Mammillarias and some of the Echinopsis, are small when fully grown, and as they need little soil and small pots, the average window-ledge would accommodate a goodly number of such plants.

However, the gardener with a small greenhouse, especially one which gets plenty of sun, is in a much better position to succeed as a Cactus-grower. Still, whether grown in a sitting-room window or in a greenhouse, Cacti, intelligently treated, afford endless interest and require less attention than almost any other class of plants. They may be left during the summer holiday without any fear that they will suffer from lack of water, and all they require during winter is as much sun as possible. Few of them need water between October and April. Cactus culture should be much more general than it is. Though calling for little outlay of time, trouble or money, it is the most fascinating of hobbies, and if this short article should lead a few readers to essay a small collection of Cacti, the writer's object will be amply served.

C. G. B.

HARDY CYPRIPEDIUMS.

THESE beautiful flowers are always admired when arranged with taste in shady nooks or crannies of the alpin garden, and a few words to the cultivator may, I hope, be of service, and induce others to grow them. In the first place, when the spot has been chosen, the soil, just as it is, may not be such as would successfully grow these plants; therefore the whole should be trenched and a portion of the soil wheeled or carted away and some rea good Oak or Beech leaf-soil, in equal quantitie with broken-up peat, substituted. This is the co rect material to use in conjunction with the staple as the plants delight in a cool, boggy soil whic retains the moisture, and, above all, must be situate in partial shade. If there are only a few plants they may be shaded behind a large stone, as th stone will help to retain moisture. Many shade-loving plants will revel on the north side of a rock or stone, whereas on the south side they would dwindle away and die. One of the freest-blooming and one of the easiest to grow is Cypripedium spectabile. If planted carefully in positions described it soon makes a nice large clump. Th flowers are white and rose colour, and very strikin when in bloom; this has been in cultivation over one hundred and fifty years. C. Calceolus is very attractive; its brown and yellow flowers are very striking. Sometimes it will thrive in loam and lime rubble very well; in fact, both this and C. ventricosum will succeed in such a mixture. We grow them in similar positions to C. spectabile, where they do well, but in one instance they are on limestone, where they grow equally well. C. acaule is one of the most remarkable flowers, of rare size, and bears, as a rule, only one flower on a spike. The sepals are light, while the large pouch is rose and crimson. It is said to be one of the oldest species from North America. C. macranthum is one of the most handsome, with purple flowers shaded with rose; the flower-spikes grow about fifteen inches in height under good conditions. C. tibeticum is a newer species from Japan and China, as its name explains. It was introduced a season or two ago by Messrs. Veitch and Sons, and when exhibited at the Temple Show caused quite a sensation among hardy plant-lovers. It resembles C. acaule, but is larger. There are several other forms which are all more or less beautiful; but in growing these it must always be remembered that they do not like draughty places or exposure to wind and sunshine.

Leonardslee Gardens. W. A. COOK.

"Country Life" for December 30 contains, among other articles, an illustrated account of "Melville House, Fife"; "Tales of Country Life: The End of the Story," by V. H. Friedlaender; "In the Garden: Outdoor Flowers at Midwinter" (illustrated); "Big-game-hunting in East Africa" (illustrated), by Sir Henry Seton-Karr; "West Highland Implements" (illustrated), by K. T. M. Donaldson; "The Rifle in War.—II." (illustrated).